

WHY IS NATURE RESTORATION CRITICAL TO SUSTAIN JOBS AND ECONOMIC BENEFITS FROM HEALTHY ECOSYSTEM SERVICES?

Publication date:

December 2022

Authors:

Gabrielle Aubert (IEEP)



Institute for
European
Environmental
Policy



The EU 2020 Biodiversity Strategy committed to restoring at least 15% of degraded ecosystems by 2020. While this target has not been achieved, the European Commission estimated that fully meeting this target and restoring Natura 2000 to favourable status could further have **generated respectively up to 50,000 and 140,000 jobs and up to €4.2 and 11.1 billion of direct outputs annually**, as well as a **wider range of benefits from ecosystem services** [1]. The targets set in the Nature Restoration Law are more ambitious, and therefore could generate wider economic benefits than those previously assessed.

Nature restoration leads to job creation and maintenance and is particularly important for local communities. It is estimated that the investment needs of the Natura 2000 network can support as many as 500,000 additional jobs [2, 3].

Restoration activities are both directly and indirectly linked to job creation. Restoration increases ecosystem resilience, safeguarding jobs which depend on the natural environment, such as farming, fishing, and forestry.

Natural areas and restoration activities also support jobs in tourism, cultural heritage & recreation, health, and activities linked to climate adaptation and mitigation [2].



Bucegi Natural Park, Romania, Sinaia, Photo by Laura Puscas

How can nature restoration support job creation?

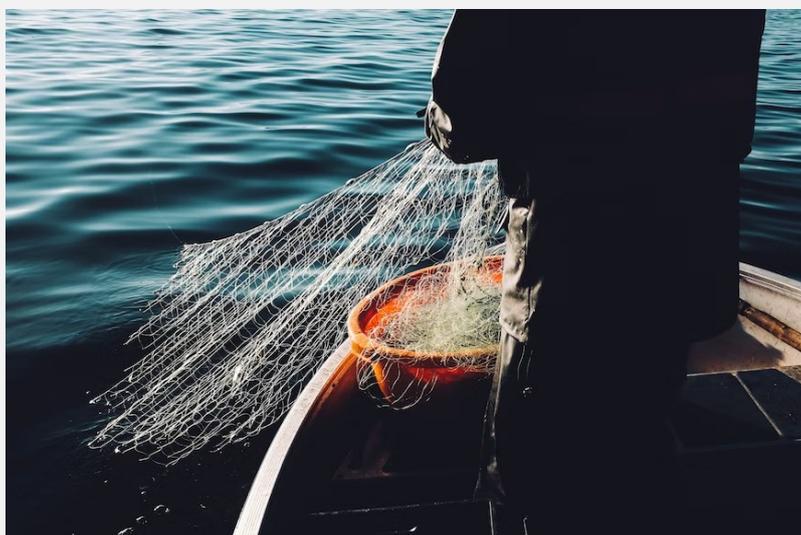
The case for MPAs and sustainable fishing

The fisheries industry in the EU provides jobs for more than 350,000 people¹. These jobs depend on marine ecosystem resilience and sufficient fish stocks. However, marine ecosystems in the EU are heavily degraded [4] and 69% of the 397 European stocks are overfished [5].

Fishing activities can strongly benefit from the conservation and restoration of marine habitats and the protection of fish nurseries within Marine Protected Areas (MPAs). Studies show that MPAs spill over larger and more valuable fish species into the fishing areas outside the protection zone and reduce the risk of fisheries collapse, and therefore the risk of a long-term loss of income for fishermen [6, 7].

In the **Medes Islands Marine Reserve in Spain**, the creation of a small no-take area within the MPA allowed fish populations to recover, has generated revenue through tourism activities and has supported fishermen's income. The reserve supports 200 direct jobs and brings €12 million euros to the local economy each year [8, 9].

Storjungfrun, Vallvik, Sweden, Photo by Fredrik Öhlander



NATURE-BASED TOURISM

Nature protection and restoration are also important for **nature-based tourism**. Tourism employs 12 million people in Europe and of these, 3.1 million have links to protected areas and 0.8 million to 2 million explicitly with Natura 2000 [2]. Natura 2000 sites attract between 1.2 to 2.2 billion visitor days per year and generate recreational benefits worth €5 to 9 billion per year [10].

ENTREPRENEURIAL OPPORTUNITIES

Restoration can also stimulate new entrepreneurial opportunities, by attracting new investments and new economic enterprises to a given area and creating incentives for biodiversity-friendly business models.

¹ [EU Science Hub, Fisheries and Aquaculture](#).

Why is nature restoration critical to sustain jobs and economic benefits from healthy ecosystem services?

Nature restoration brings massive economic benefits in terms of restored and healthy ecosystem services, especially in the context of biodiversity loss, land degradation and climate change.

In 2013, the overall **benefits of Natura 2000 at land were valued at between €200 to 300 billion per year** (value of gross benefits delivered by the sites) [10]. This value is probably a large underestimate as marine sites were not included in the assessment, and as the size of the network has increased since then. **The value of the benefits stemming from protected areas is therefore in the range of hundreds of billions of Euros per year.**

However, these ecosystem services are being threatened by biodiversity loss, land degradation and climate change. Unhealthy ecosystems lose their provisioning and regulating functions, which will have to be replaced by human infrastructures, at a very high cost. For example:

- **Crop provision** is already being impacted by the adverse effects of climate [11]. Climate related costs for agriculture could reach €18 billion per year in Europe by the 2080s, driven by yield reductions in southern Europe. Climate change could lead to a 20% food price rise in 2050 globally, with estimates increasing under higher emission pathways [12].
- **Water supply and management** services are also impacted, with studies estimating adaptation costs for all water services (water supply and sewage systems) at \$214 billion for Europe in the period from 2010 to 2050 [12]. Increasing water demand under climate change will also raise costs for desalination, transport, and electricity.
- **Flood mitigation services** are under threat and annual damages from floods, which are currently estimated at €4 to 5 billion a year, could increase to €32 billion a year in the EU by 2050 under a 2°C warming scenario. Costs increase significantly under higher emission pathways, with estimates of €98 billion a year by 2080 [12].

There are many other ecosystem services at risk which may lead to increased costs of adaptation and/or expected damages. Restoration can help avoid large parts of these costs as it restores ecosystem health and functions. The economic benefits of restoration largely outweigh the costs of inaction [13].

- **Restoring agricultural ecosystems can enhance ecosystem processes and services which underline the nutritional quality and stable production of crops** such as soil fertility, water retention, crop pollination, erosion control, and natural pest control.
- **Restoring pollinator habitats and ecosystems contributes to enhanced crop productivity and quality** which in turn increases their economic and nutritional value [14]. Pollination services are currently valued at around €10-15 billion yearly in the EU [15] [16]. Restoring hedgerows in agricultural areas creates pollinator-friendly habitats and has co-benefits as it contributes to enhance flood control by ecosystems.
- **Restoring wetlands and rivers improves water quality and leads to a reduction in water treatment costs** for local authorities. This can outweigh the restoration costs in the long term.
- **Restoring ecosystems such as rivers, wetlands, forests, and agroecosystems increases their flood retention capacity** as they absorb and retain water naturally.

References

1. European Commission, Review of progress on implementation of the EU green infrastructure strategy, in Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. 2019, European Commission: Brussels.
2. Mutafoğlu, K., et al., Natura 2000 and Jobs: Scoping Study. 2017, Institute for European Environmental Policy in collaboration with the N2K Group: Brussels.
3. European Commission, IMPACT ASSESSMENT Accompanying the proposal for a Regulation of the European Parliament and of the Council on nature restoration, in STAFF WORKING DOCUMENT. 2022, European Commission: Brussels.
4. EEA, State of Nature in the EU: Results from reporting under the nature directives 2013-2018. 2020, European Environment Agency: Copenhagen.
5. Froese, R., et al., Status and rebuilding of European fisheries. *Marine Policy*, 2018. 93: p. 159-170.
6. OECD, Marine Protected Areas. 2017.
7. Haines, R., et al., Study on the Economic Benefits of MPAs – Final Report. 2019, ICF Consulting Services Ltd; PML and Institute for European Environmental Policy (IEEP): Brussels. p. 82.
8. Forum, W.E., New Nature Economy Report II: The Future of Nature and Business. 2020.
9. Sala, E., et al., Fish banks: An economic model to scale marine conservation. *Marine Policy*, 2016. 73: p. 154-161.
10. European Commission, The Economic Benefits of the Natura 2000 Network. 2013, Publications Office of the European Union: Luxembourg.
11. EEA, Climate change adaptation in the agriculture sector in Europe. 2019.
12. COACCH, The Economic Cost of Climate Change in Europe: Synthesis Report on State of Knowledge and Key Research Gaps. Policy brief by the COACCH project., in COACCH: CO-designing the Assessment of Climate CHange costs., P. Watkiss, J. Troeltzsch, and K. McGlade, Editors. 2018.
13. OECD, Biodiversity: Finance and the Economic and Business Case for Action. Vol. Chapter 5. Opportunities for cost-effective restoration. 2019.
14. Science for Environment Policy, Pollinators: importance for nature and human well-being, drivers of decline and the need for monitoring. 2020, Brief produced for the European Commission DG Environment: Bristol: Science Communication Unit, UWE Bristol.
15. Vallecillo, S., et al., Ecosystem services accounting Part I Outdoor recreation and crop pollination, in JRC Technical Reports. 2018, Publications Office of the European Union: Luxembourg.
16. Gallai, N., et al., Economic valuation of the vulnerability of world agriculture confronted with pollinator declines. *Ecological Economics*, 2009. 68(3): p. 810-821.



Funded by the European Union. 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 CINEA can be held responsible for them.

These policy briefs were written by IEEP and Ecologic Institute in the Think Sustainable Europe Network in response to the proposed EU nature restoration law.

