Declaration of Support

SCIENTISTS CALL FOR THE RESTORATION
OF 20% OF EU’S LAND AND SEAS BY 2030,
AND ALL AREAS IN NEED OF RESTORATION BY 2050

May 2023

The natural world is our life support system, and more than half of the global GDP depends on it. But we have destroyed much of Europe’s – and our planet’s – biodiversity through industrial and economic activity. If we don’t restore much of our degraded lands and seas, we will lose the benefits that ecosystems provide for free, with spiraling negative impacts to humanity. This is why the world’s nations (including the EU) agreed in 2022 to restore at least 30% of degraded habitats by 2030 under the Global Biodiversity Framework of the UN Convention on Biological Diversity. In 2022, the European Commission proposed the first ever legislation to repair the European habitats that are in poor condition, and to bring back nature to all ecosystems, from forest and agricultural land to marine, freshwater and urban ecosystems. The aim is to cover at least 20% of the EU’s land and seas by 2030 with nature restoration measures, and all ecosystems in need of restoration by 2050. The law will scale up existing measures such as rewilding, returning trees, greening cities and infrastructure, and removing pollution to allow nature to recover. If the EU is to restore the health, productivity and resilience of its lands and seas, and have nature continue supporting European food security, employment, climate change mitigation, and the economy, it must approve and implement its Nature Restoration Law.

The facts

Restoration does not preclude economic activity
- Restoration is about bringing back biodiversity everywhere, including managed forests, agricultural lands and cities, so that people – especially those who directly depend on healthy nature for their livelihood – will live and produce better together with nature.
- Every €1 spent into nature restoration produces €8 to €38 in economic value, thanks to the ecosystem services that support food security, ecosystem and climate resilience and mitigation, and human health.
- Restoring marine life produces economic returns of 10:1 relative to the status quo, via fisheries enhancement, ecotourism and other ecosystem benefits.
- Insurance companies have invested €510 billion in companies with high dependency on ecosystem services.

Restoration enhances food security
- Intensive farming is the biggest threat to European birds. But hedgerows and woodland within agricultural landscapes are reservoirs of biodiversity, including birds and insects that pollinate crops, control pests, help improve soil health, reduce impacts from droughts, and retain water – while being more economical than intensive agriculture without nature.
- In the sea, restoration of fish and invertebrate biomass in highly protected areas produces higher reproductive output and spillover of fish and invertebrates that improves fishing catch around the protected areas.
Restoration helps mitigate the impacts of climate change

- We cannot solve climate change without nature. Reduction of carbon emissions is essential, but only healthy ecosystems can absorb the excess carbon pollution in the atmosphere and the sea.
- Restoring carbon-rich terrestrial ecosystems such as peatlands sequester large amounts of carbon, but they also can prevent soil subsidence, reduce flood risks, and improve water quality\(^\text{13}\). In European seas, restoration of seagrass beds and kelp forests can also help sequester large amounts of carbon\(^\text{14}\).
- Rewilding species such as beavers and large herbivores can reduce the risk and recover from climate change-related wildfires and drought\(^\text{15,16}\).
- Restoration efforts are not in conflict with the development of renewable energies, but if designed smartly they could be complementary. In fact, the European Power Sector supports the EC’s Nature Restoration proposal\(^\text{17}\). Offshore wind farms, for example, are typically farther offshore than shallow coastal areas where restoration of seagrass beds could occur. Wind farms could also protect some areas from the destructive impacts of bottom trawling, thus enhancing the natural restoration of soft bottoms.

Restoration and protection require separate approaches

- Nature restoration does not equal nature protection and does not automatically lead to more protected areas. While nature restoration is necessary in protected areas as well due to their increasingly poor condition, restored areas do not have to become protected areas.
- Greening cities, for example, does not involve protected areas but it has significant positive effects on human health including clean air, cooler summers with less extreme temperatures, and a reduction in deaths\(^\text{18}\).

Marine restoration is best achieved through highly protected areas

- In the sea, unlike the land, the most efficient mechanism to restore the abundance of marine life is highly protected marine areas (HPMAs) where fishing and other damaging activities are banned.
- On average, the biomass of fish increase by 500% in HPMAs relative to unprotected areas nearby — within a decade or less\(^\text{19}\).
- Natural recovery of commercial fishes and invertebrates can be accompanied by seagrass, kelp and saltmarsh restoration.

Restoration benefits far exceed the costs

- There is a myth that nature restoration will cost jobs, but the actual enemy of jobs in farming and fishing is continued overexploitation of the very resources that support those livelihoods.
- In the case of the protected under the Habitats Directive, restoring them to a good condition over 10% of the total EU territory, is estimated to cost in total €154 billion. The projected benefits of restoring EU’s biodiversity-rich habitats are expected to reach €1,860 billion — a cost benefit ratio of 1:12 in favour of benefits\(^\text{5}\). The cost of inaction is also much higher than the restoration costs, estimated at €1,700 billion.
- While there may be short term costs, the EU has sufficient funds to provide bridge financing. For example, restoring hedgerows and woodland as part of agricultural landscapes and
reducing chemical pesticide use (while shifting to natural pest control) could be funded in the short term by redirecting subsidies from intensive farming practices to regenerative practices.

Sincerely,

Enric Sala, National Geographic Society, USA
Deli Saavedra, Rewilding Europe, Spain
Randi Rotjan, Boston University, United States
Joachim Claudet, CNRS, France
Emanuel Gonçalves, MARE - ISPA, Portugal
Sylvaine Giakoumi, Stazione Zoologica Anton Dohrn, Italy
Ulf Bergström, SLU, Sweden
Fiona Tomas, IMEDEA, CSIC, Spain
Enrique Macpherson, CSIC, Spain
Ricardo Barea, The Wyld Foundation, United States
Alexandros Frantzis, Pelagos Cetacean Research Institute, Greece
Fabio Favoretto, Scripps Institution of Oceanography, Italy
Emma Cebrian Pujol, Centre d'Estudis Avançats de Blanes CSIC, Spain
Paolo Guidetti, Genoa Marine Centre, Stazione Zoologica Anton Dohrn, Italy
Jorge Cortés-Núñez, University of Costa Rica, Costa Rica
Forest Rohwer, San Diego State University, USA
Stuart Sandin, Scripps Institution of Oceanography, UC San Diego, USA
Mykyta Osadchyi, University of Maria Curie-Skłodowska, Poland
Juan Mayorga, National Geographic Pristine Seas, Colombia
Christos Mammides, Nature Conservation Unit, Frederick University, Cyprus
Valentina Platzgummer, Centro para la Biodiversidad Marina y la Conservación, Mexico
Gorka Sancho, College of Charleston, USA
Erica Carone, Universidad Autónoma de Baja California Sur, México
Lance Morgan, Marine Conservation Institute, USA
Peter Jones, Professor of Environmental Governance, UCL, UK
Frédéric Le Manach, BLOOM, France
Carlo Cattano, Stazione Zoologica Anton Dohrn, Italy
Sabin Liulea, Universidad de La Laguna, Spain
Purificació Canals, MedPAN, Spain
Timothy Clark, Deakin University, Australia
Owen Day, CLEAR Caribbean, United Kingdom
Jesús E Argente García, Universidad de Murcia, Spain
Blanca Soro Mateo, Universidad de Murcia, España
Samantha Deane, Kelp Forest Foundation, Netherlands
Arturo Lucas Forcadell, Universitat Autònoma de Barcelona, Spain
Gustavo Hernández Arteaga, Universidad de Murcia, España
Andrew Rosenberg, University of New Hampshire, USA
Jaume Piera, Institute of Marine Sciences (ICM-CSIC), Spain
Josep Ramon Fuentes i Gasó, Universitat Rovira i Virgili, España
Santiago Álvarez, Universidad de Murcia, Spain
Joaquim Garrabou, Institut de Ciències del Mar ICM-CSIC, Spain
Juan Diego López Giraldo, VITA XXI SLP, Spain
Philippe Cury, IRD, France
Didier Gascuel, Institut Agro, France
Sara Labrousse, CNRS, France
Patrice BRETEL, CNRS - LOCEAN UMR7159, FRANCE
Delphine Dissard, IRD, France
Luisa Mangialajo, Université Côte d'Azur, France
Francesco Ferretti, Virginia Tech, USA
Laura Giuliano, CIESM - The Mediterranean Commission, Monaco (CIESM HQ)
Sakina-Dorothée Ayata, Sorbonne University, France
Jean-François Julien, Museum National d'Histoire Naturelle, France
Julie Deshayes, CNRS, France
Nadine Steiger, LOCEAN, France
Renaud Person, IRD, France
Josyane Ronchail, LOCEAN - IPSL, France
Matthieu Carré, CNRS/Laboratoire d'Océanographie et du Climat (LOCEAN), France
Yves Bas, Museum National d'Histoire Naturelle, France
Héloïse Caraty, Sorbonne University, France
Antoine-Alexis Nasser, INRIA/LOCEAN, France
Robin Rolland, Sorbonne Université, France
Ludovic Crochard, Museum National d'Histoire Naturelle, France
Julia de la Cruz, Science for Change, Spain
Aurélien Gabriel Cohen, LADYSS, Université Paris Cité, France
Arno Gendre, Université Claude Bernard Lyon 1, France
Maya Janvier, LOCEAN-IPSL, France
Inès Mangolte, LOCEAN-IPSL, France
Alice Soccodato, EMBRC - European Marine Biological Resources Centre, France
Claire Waelbroeck, CNRS, France
Ignasi Ferrer, Seastainable Ventures, Spain
Francis Codron, Sorbonne Université, France
Kate Allcock, US EPA, USA
Juanita Zorrilla Pujana, SUBMON, Spain
Fanny Guillet, CNRS, France
Denis Trystram, Université Grenoble Alpes, France
Christophe Cérin, Université Sorbonne Paris Nord, France
Margaux Perhirin, LOCEAN-IPSL-SU, France
Antonio Di Franco, Stazione Zoologica Anton Dohrn, Sicily Marine Center, Italy
Véronique Pierron-Bohnes, IPCMS Strasbourg, France
Charlotte Roemer, Museum National d'Histoire Naturelle, France
Guillaume Mandil, Université Grenoble Alpes, France
Caroline Rossi, Université Grenoble Alpes, France
Anne Delaballe, UGA, France
Quentin Desvaux, Université Grenoble Alpes, France
Jean-Baptiste Durand, AMAP CIIRAD, France
Jean-Luc Schwartz, CNRS, France
Myriam Khalfallah, UBC, Canada/Tunisia
Alexandros Tsalapatis, University of the Aegean, Greece
Savvas Chatzinilolaou, Blutopia Marine Park Ike, Greece
Lida Kypriotou, Swiss Cetacean Society Switzerland
François Simard, IUCN/WCPA, France
Louis Closson, UGA, France
Matthieu Verlynde, AgroParisTech, Université Paris-Saclay, France
Sophie Molia, CIRAD, France
Antoine Leblois, INRAE, France
Daniel Mateos Molina, Universidad de Murcia, Spain
Anastasios Baltadakis, LAMAR S.A, Greece
Flora Borchert, Stockholm University, Sweden
Christine Le Roux, CIRAD, France
Stephen Crooks, Silvestrum Climate Associates, The Netherlands
Agnès Labrousse, Sciences Po Lyon - Triangle, France
Romain Troublé, Tara Ocean Foundation, France
Catherine Boemare, EHESS, France
Zinovia Erga, Oceanides imbre, Greece
Alessandra Pome, UNEP, France
Riana Lynn, Journey Foods; Adult Science Fair; World Economic Forum, USA
Naomi Sheehan, Climate Communicators Ltd., Ireland
Juan Roos, Digital Earth Solutions, Spain
Josefin Engelhardt, Stockholm University, Sweden
Fenix Garcia Tigreros, University of Rhode Island, USA
Silvia Oliva, Centro Oceanográfico de Canarias, COC-IEO-CSIC, Spain

References

2 https://zenodo.org/record/6417333
3 https://www.cbd.int/gbf/targets/2/
5 https://op.europa.eu/en/publication-detail/-/publication/95311c9d-fo7b-11ec-a534-01aa75ed71a1
6 https://www.nature.com/articles/s41586-020-2146-7
8 https://www.pnas.org/doi/abs/10.1073/pnas.2216573120
11 https://www.int-res.com/abstracts/meps/v400/p233-243
12 https://www.int-res.com/abstracts/meps/v366/p159-174
17 https://cdn.eurelectric.org/media/6462/2023-04-12_nrr_joint-letter_eurelectric-tnc_final-h-E54A0FA2.pdf
18 https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00229-1/fulltext