Ecosystem Restoration in Central and Eastern Europe

BRIEFING • JULY 2020

A Green Recovery for CEE Ecosystems

The UN General Assembly has declared 2021-2030 as the UN Decade on Ecosystem Restoration. Meanwhile, the EU has acknowledged its failure to restore 15% of degraded ecosystems as set out in its 2020 Biodiversity Strategy, and now seeks to embrace stricter commitments and a new approach. Both recognise the urgent need to take immediate and effective steps to counteract the extremely worrying levels of ecosystem degradation that we observe today.

In 2018, the Intergovernmental Platform on Biodiversity and Ecosystem Restoration (IPBES) found that only a quarter of the Earth's land cover was substantively free of human impact. By 2050, this will shrink to one tenth.[1] In the EU, only 16% of assessed habitats have achieved a favourable conservation status. The situation in Central and Eastern European (CEE) is similarly grim: 35.1% of habitats in Romania, 88% in Bulgaria, 55.5% in Slovakia and 80.4% in Hungary were found to have an unfavourable conservation status.[2] Some of the hardest-hit ecosystems are also among the most valuable: In CEE, less than 320,000 ha of old-growth forests are thought to remain today - home to 9 out of 10 land flora and fauna species and thus critical to life on Earth. In the case of Romania, more than 60% of its old-growth forests have been lost between 2005 and 2019.

The state of riverine ecosystems in coastal areas and wetlands is even more appalling.

What we mean by Green Recovery

The **Covid-19 pandemic** and its immediate health, social and economic impacts require an urgent response. Beyond this, however, public stimulus packages to relaunch the economy are already being developed, requiring crucial decisions on where these substantial financial flows should be directed or through which channels and vehicles, in order to bring most benefits.

Badly designed recovery plans in response to the Covid-19 outbreak risk exacerbating the social inequalities and environmental crisis. Instead, **governments must draw up their plans in a way that helps tackle social inequalities, climate and environmental breakdown, and the need to improve long-term resilience**, by taking a consistent approach across the board, and aiming clearly at a green, equitable and resilient recovery.

WWF is calling on the European Union and its governments to demonstrate leadership and foresight by continuing to follow, and reinforcing, a trajectory towards a resilient, sustainable and just economy and society**, in line with the European Green Deal, the Paris climate agreement, biodiversity goals and the Sustainable Development Goals (SDGs).**

[1] IPBES, *Summary for Policymakers of the Thematic Assessment Report on Land Degradation and Restoration of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services* (2018), available at: https://www.ipbes.net/system/tdf/spm_3bi_ldr_digital.pdf?file=1&type=node&id=28335

[2] EEA, *State of Nature in the EU - EEA Technical Report No2/2015* (2015), available at: https://www.eea.europa.eu/publications/state-of-nature-in-the-eu

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Globally, wetlands are the most heavily degraded habitat category, having lost 87% of their extent since the advent of the modern era.[3] The Danube River Basin is no exception in this regard. More than 80% of the Danube's wetlands have been lost, and with them, the ecosystem services they provide to people like flood protection, fish production, recreation, livelihoods and biomass.

However, there is hope. In all assessed ecosystems, restoration efforts have been proven to gradually reverse the damage inflicted upon them. In the case of the Danube River Basin for instance, 193,475 ha of wetland areas have been identified with restoration potential. Of these, 65,000 ha will be partly or totally reconnected by 2021.[4] While the upfront costs of such projects are often substantial, these are greatly outweighed by the long-term benefits to society. Indeed, the financial rewards of restoration efforts on 150 million hectares of degraded and deforested land could globally reach an estimated EUR 76 billion per year.[5] Consequently, restoration is an important nature-based solution that must be deployed to tackle many of the challenges humanity and the planet are facing.

What we need to do

How to make a recovery strategy 'green'?

Our decision makers in the EU, representatives in national governments and parliaments, and spokespersons at the municipal level must ensure just and sustainable recovery plans, by

1. directing **at least 50% of recovery plans into environmentally sustainable activities;**
2. **not supporting environmentally harmful activities**;
3. delivering social benefits through a **"just transition" for all**;
4. upholding and strengthening existing **environmental standards and policies**;
5. **communicating benefits** of improving the overall environmental health of societies;
6. and ensuring that **EU support to third countries adheres to the same principles**.

Timeline

September 2020	WWF Living Planet Report
22.09-23.09.2020	UN Biodiversity Summit New York
20.10-22.10.2020	EU Green Week and launch of the EU State of Nature Report
23.10.2020	EU Environment Council conclusions on EU Biodiversity Strategy
10.-11.12. 2020	European Council meeting and adoption of the 2021-2027 EU budget
07.01-15.01.2021	IUCN World Conservation Congress
21.01-26.02.2021	World Economic Forum
17-30 May 2021	COP 15 - Convention of Biological Diversity

IN THE FACE OF THE UNPRECEDENTED CRISIS OF NATURE LOSS, AS THE DOMINANT SPECIES ON THE PLANET WE HAVE THE MORAL RESPONSIBILITY TO PRESERVE THE DIVERSITY OF LIFE ON EARTH.

[3] Davidson, N.C., "How much wetland has the world lost? Long-term and recent trends in global wetland area", *Marine and Freshwater Research*, Vol. 65, nr. 10 (2014): 934-941.
[4] ICPDR, *The Danube River District Management Plan - 2015 Update* (2015), available at: https://www.icpdr.org/main/sites/default/files/nodes/documents/drbmp-update2015.pdf
[5] IUCN, *Enhancement of Natural Capital through Forest and Landscape Restoration (FLR)* (2016), available at: https://www.iucn.org/downloads/policy_brief_on_forest_restoration_1.pdf

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…and rethink regulation to strengthen resilience. This requires

1. strengthening and continuing the **implementation of the European green Deal**;
2. **ending environmentally harmful subsidies** and scaling up **environmental fiscal reform**;
3. reforming EU fiscal rules to **facilitate public investment in decarbonising the economy**;
4. accelerating **EU sustainable finance policies** to shift the trillions;
5. ensuring **sustainable production and supply chains** within and to the EU;
6. and putting **people's wellbeing at the heart of the crisis response**.

At the regional level

On the transnational level, we call on the **EU Commissioner for Neighbourhood and Enlargement** to maintain existing green infrastructure and restore habitats for the benefit of the climate, nature and people. The Commissioner should **strengthen the green infrastructure element in the cooperation agenda with Eastern Partnership countries**.

As required by the EU Water Framework Directive, **we call on CEE water directors to set ambitious freshwater ecosystem restoration targets under the 3rd River Basin Management Plans.** This should be done in consultation with ministries responsible for agriculture, nature conservation, spatial planning and flood defence. These restoration targets must be underpinned by a sufficient budget allocation from EU, national and private sector financing. Regional governments have pledged to restore 200,000 ha in the Danube Basin, but only 10% will be restored by 2021. WWF expert studies have confirmed that the potential is considerably higher.[6] A realistic target for the Danube Basin is to design, secure funding for, and (at least partially) implement restoration of 350,000 ha of floodplain habitats by 2030. In Hungary alone, 150,000 ha of wetlands could and should be restored by this deadline.

Ambitious restoration strategies do not only make sense from an environmental perspective: according to a US study, every $1 million invested on restoration supports the creation of on average 33 new jobs. Equivalent spending on the oil and gas industry yields only 5.2 new jobs.[7]

Key facts & figures

- **Globally, an estimated 2 billion hectares of land offer possibilities for restoration. Of these, about half a billion would be suitable for the restoration of closed (non-fragmented) forests, while 1.5 billion are best suited for mosaic restoration, in which forests are combined with other land uses;[7] and**
- **The Economics of Ecosystem and Biodiversity (TEEB) initiative estimates that the global annual cost of land degradation lies between EUR 1.5-3.4 trillion.[8]**

Current trends can still be reversed if transformative changes are implemented that address the root causes of nature deterioration.

THE WORLD MUST COME TOGETHER TO REVERSE NATURE LOSS AND SAFEGUARD THE FUTURE OF HUMANITY

[6] WWF, *Assessment of the restoration potential along the Danube and main tributaries* (2010), available at: http://assets.panda.org/downloads/wwf_restoration_potential_danube_1.pdf
[7] T. BenDor, et al. (2015), „Estimating the Size and Impact of the Ecological Restoration Economy", *PloS ONE*, Vol. 10(6).
[8] WRI, *A World of Opportunity* (2011), available at: http://pdf.wri.org/world_of_opportunity_brochure_2011-09.pdf
[9] ELD, *ELD Business Brief* (2013), available at: https://www.eld-initiative.org/fileadmin/pdf/ELD_Business_Brief.pdf

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Meeting this challenge would achieve a critical contribution towards attaining the objectives set by the Water Framework Directive. Furthermore, the restoration of significant areas of Danube Basin wetlands would have a positive impact in mitigating flood and drought risks from climate change and human overexploitation, as well as safeguarding the basis for recreational fisheries and nature tourism.

River ecological connectivity must also be urgently addressed. Six hundred and fifty major dams and weirs currently block fish migration and sediment (critical building material for freshwater habitats and marine coasts) in the Danube Basin. Forty of them are having a severe impact on freshwater fauna and flora such as sturgeons, the most highly endangered group of species on the planet. Hydropeaking, the sudden release of large amounts of water through dams to maximise energy production, further exacerbates the situation. By 2021, only 150 of these obstacles will have been made passable for fish, and only 4 dams will have mitigated the impact of hydropeaking. Water directors must engage dam operators and other water infrastructure promoters to restore fish migration and sediment flow across all these obstacles, and ultimately ensure that 500 dams and weirs in the Danube Basin are made passable for fish and sediments by 2030.

In order to guarantee that these restored ecosystems are integrated into the web of life that defines riverine biomes, we further call on **water directors to restore healthy migration and water flow conditions for fish impacted by dams and weirs on all larger rivers. Improving ecological connectivity coincides with requirements of the Programme of Measures of the 3rd River Basin Management Plans,** and should happen in consultation with ministries for energy and private-sector dam operators.

In the Ministries responsible for the environment and forestry

Immediate steps are also required to enhance forest resilience to climate change and restore priority forest habitats. Therefore, we appeal to **ministers responsible for forest management and conservation to set bold forest ecosystem restoration plans by 2021** that promote natural regeneration of native European tree species and climate-adapted provenances, and support the creation of diverse forest habitats. In the Danube-Carpathian Region, millions of hectares of forests are, and will be strongly affected by climate change. In the past, forest owners focused on highly productive tree species and monocultures with low species and genetic diversity to serve market demand. These forest management mistakes have seriously undermined the natural capacity of forests in the region to adapt. By 2030, a minimum of 5 million ha of forest habitats could, and must be restored to more natural conditions or afforested.

In cases of acute threats to particular species, direct intervention is needed to safeguard their survival. We appeal to **ministers responsible for nature conservation to establish large-scale and targeted** on-site **measures serving the recovery of the most endangered species in the Danube-Carpathian Region,** and where necessary, in controlled breeding facilities. In order to improve the prospects of survival for these vulnerable populations and other wildlife in the area, we call on **ministers responsible for nature conservation and spatial planning** to restore connectivity between biodiversity hotspots in the Danube Basin such as Natura 2000 sites. Together with ministers tasked with the development of linear infrastructure, they should restore wildlife corridors traversing infrastructure barriers through the use of green infrastructure elements. By 2030, 50% of fragmented areas both inside Natura 2000 sites and key areas outside the network (e.g. ecological corridors and barriers) should be restored.

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In the Ministries of agriculture

Land-use change and high-input industrial farming practices are among the leading drivers of land degradation and resulting biodiversity loss in a region in which 55% of the total land surface is directly affected by agriculture. In Romania, an estimated 27,000 km^2 (11% of total land) is very highly susceptible to degradation, and around 32,000 km^2 (29%) in Bulgaria.[10] The need for rapid and resolute action is clear. We call on **ministries and authorities responsible for agriculture and rural development to take measures to halt the degradation of land used in intensive farming. Furthermore, action must be taken to increase vegetation cover on agricultural lands from the minimum 5% as currently legally required, to at least 10%.** An **increase in buffer zones along rivers in agricultural areas should be sought** in order to facilitate the restoration of riparian forests. Improved vegetation cover on agricultural lands will provide adequate "green infrastructure" (for instance hedges, flower margins, buffer strips, and wetlands) for insects, birds and mammals.

In the Ministries of finance

Ministers of finance and EU funds (where existing) **must allocate sufficient resources to tackle the above-listed restoration measures,** including capacity-building for relevant stakeholders. **Finance institutions should complement these efforts by assessing the feasibility of investments in restoration measures, and support nature-based solutions through private funding streams**.

Awareness raising

The steps required to reverse catastrophic biodiversity loss are costly and require significant effort. Rising to the challenge requires strong cooperation across all sectors and broad public support. To secure this support, we call on **all authorities dealing with planning, funding and implementing restoration measures to place an emphasis on bringing nature closer to people** by maximising the visibility of restoration measures. Actions could include creating transparent fish passes, opening endangered species breeding centres to the public, and speeding up restoration measures close to or in urban centres.

[10] Prăvălie, R., et al., "Quantification of Land Degradation Sensitivity Areas in Southern and Central South-eastern Europe. New results Based on Improving DISMED Methodology with New Climate Data", *Catena,* Vol. 158 (2017): 309-320.

Further reading

- WWF, Building resilience: WWF recommendations for a sustainable and just recovery after Covid-19 (2020), available at: https://www.wwf.eu/wwf_news/media_centre/?uNewsID=362052
- WEF, The Future of Nature and Business Policy Companion: Recommendations for policy-makers to reset towards a new nature economy (2020), available at: http://www3.weforum.org/docs/WEF_NNER_II_The_Future_of_Business_and_Nature_Policy_Companion_2020.pdf
- IPBES, Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2019), available at: https://www.ipbes.net/news/ipbes-global-assessment-summary-policymakers-pdf
- WWF, Living Planet Report 2020, available here: https://livingplanet.panda.org/

For more information

Irene Lucius
Regional Conservation Manager,
WWF-CEE
ilucius@wwfcee.org