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## Carpathian Mountains (Romania)

A project in the Southern Carpathian Mountains of Romania is restoring damaged habitats and ecosystems for large carnivores such as bear, wolf and lynx, and reintroducing key species like bison and beavers. Reforestation and reduced livestock grazing across over 16,000 hectares of native forest, alpine grassland and clear-cut forest in the region to achieve these aims has also already delivered an estimated 16,000 tCO<sub>2</sub>e of climate change mitigation since 2010. The project, led by Foundation Conservation Carpathia in partnership with PROPARK, Conservation Capital and Memorial University is likely to provide an additional 52,000 tCO<sub>2</sub>e over the next 20 years. Increased protection of existing forests has prevented an extra 2 to 3 million tCO<sub>2</sub>e of greenhouse gases being liberated through legal harvesting and illegal deforestation since 2010.



Viktar Malyschchyc

## Polesia (Belarus/ Ukraine)

The Polesia region of Belarus and Ukraine is home to flora and fauna of national and international conservation importance, such as Greater Spotted Eagles and European Bison, and provides the staging and breeding grounds for millions of wading birds and waterfowl. Protection and restoration of wetlands, forests and peatlands of Polesia to secure the future of this wild landscape and improve connectivity for large mammals such as wolf, lynx and brown bear is also likely to significantly reduce emissions and sequester carbon over the next 20 years, to the tune of around 21 million tCO<sub>2</sub>e. This project, a partnership between Frankfurt Zoological Society, BirdLife Belarus (APB), the Ukrainian Society for the Protection of Birds and the British Trust for Ornithology, will restore around 6,000 hectares of degraded lowland raised bog and increase the legal protection of over 270,000 hectares of forest and peatlands from forestry, illegal timber harvest, and infrastructure projects in the border region between Belarus and Ukraine, centred around the Pripyat river floodplain.

Nine ELP projects were assessed for their climate change mitigation potential, covering a broad range of activities and habitats. More information on the ELP projects and results can be found in the full report at:

[https://www.endangeredlandscapes.org/resource/natural-climate-solutions\\_elp-report/](https://www.endangeredlandscapes.org/resource/natural-climate-solutions_elp-report/)

## Principles and standards

To ensure actions realise their full potential for nature, people and climate change, a common set of agreed principles is needed. In the lead-up to the UNFCCC COP26, a group led by the Nature-based Solutions Initiative have developed four guiding principles<sup>2</sup>:

1. NbS are not a substitute for the rapid phase-out of fossil fuels and must not delay urgent action to decarbonise our economies;
2. NbS involve the protection, restoration and/or management of a wide range of natural and semi-natural ecosystems on land and in the sea; the sustainable management of aquatic systems and working lands; or the creation of novel ecosystems in and around cities or across the wider landscape;
3. NbS are designed, implemented, managed, and monitored by or in partnership with Indigenous Peoples and local communities through a process that fully respects and champions local rights and knowledge, and generates local benefits.
4. NbS support or enhance biodiversity, that is, the diversity of life from the level of the gene to the level of the ecosystem.

## Barriers to NbS

In addition to the above principles it will be essential to overcome concerns over reliability, cost effectiveness, and potential negative social, cultural, and environmental impacts of NbS. To enable this, we must:

- Increase awareness of the multiple benefits of NbS – identifying priority areas through nature-carbon mapping and nature-based carbon accounting can help increase the understanding of the co-benefits of NbS for climate change mitigation and adaptation and drive the development of cost-effective NbS.
- Mobilise finance for sustainable NbS – in 2018, only 3% of existing funds for climate change mitigation were going to NbS. We must include nature in strategic climate finance planning to improve accessibility of the carbon market for NbS and to unlock public and private investment in on-ground projects and capacity building.
- Ensure strong human rights and environmental safeguards in NbS design and implementation – observing the above set of robust principles and a comprehensive monitoring and evaluation framework are essential to deliver positive outcomes to nature, climate, and people.

<sup>2</sup> <https://nbsguidelines.info/>

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## Nature-based solutions to climate change: How restoring landscapes for nature can provide significant benefits for climate



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- The Endangered Landscapes Programme (ELP) is advancing large-scale restoration of marine and terrestrial habitats at 18 locations across Europe, reversing impacts of unsustainable use and creating places that deliver long-term benefits for nature, climate, and people.
- Climate change and biodiversity loss are interdependent and the most important human-induced environmental challenges that society faces today, threatening people's lives and wellbeing. Nature-based solutions (NbS), including conserving and restoring natural habitats, could significantly contribute to climate change mitigation and adaptation, whilst simultaneously benefiting biodiversity and ecosystem services.
- NbS are inconsistently incorporated into policy and practice to address climate change, in part due to definitional and implementation challenges.
- There are substantial climate co-benefits from landscape restoration primarily aimed at restoring biodiversity and natural processes. For example, the rewetting of peatlands across just seven ELP projects, totals nearly seven million tCO<sub>2</sub>e over 20 years. Improvements across over 80,000 hectares of species rich grasslands is likely to contribute similar magnitudes of climate change mitigation. Similarly, increasing the extent of different forest ecosystems also made large contributions to the GHG balance whilst providing habitats for wildlife.

## What are nature-based solutions (NbS)?

The **IUCN Global Standard for Nature-based Solutions** defines NbS as

“actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”.

## The role of NbS for climate, biodiversity, and sustainable development

Through protecting and restoring biodiversity and ecosystem integrity, NbS provide important means to help mitigate and adapt to climate change and support human well-being through the delivery of 'ecosystem services'. NbS can contribute to climate mitigation by maintaining and increasing the amount of carbon locked within natural ecosystems. Their contribution is key to meeting the UN Framework Convention on Climate Change (UNFCCC) Paris Agreement goal to limit global temperature rise to below 2°C<sup>1</sup>. NbS and the multiple benefits they provide are also a key tool to link and deliver progress towards goals of the Convention on Biological Diversity (CBD) and UNFCCC, while supporting the achievement of the Sustainable Development Goals (SDGs).

<sup>1</sup> Griscom et al. 2017 [www.pnas.org/cgi/doi/10.1073/pnas.1710465114](http://www.pnas.org/cgi/doi/10.1073/pnas.1710465114)

## Case studies from the ELP:

### Cairngorms Connect - Wildlands Limited (Scotland, UK)



scotlandbigpicture.com

The Cairngorms Connect project in Scotland, is a partnership between Wildland Limited, the Royal Society for the Protection of Birds (RSPB), Forestry and Land Scotland, and NatureScot. The Cairngorms National Park Authority is a supporting partner. The project is the UK's biggest habitat restoration project, and its 200-year vision covers 60,000 hectares. It will restore native pinewoods and peat bogs allowing populations of key species such as eagles, wildcats, black grouse, otters and the rare twinflower to increase and leading to substantial climate change mitigation. For example, the estates of Glen Feshie, Glen Tromie, Gaick and Killiehuntly (previously traditional sporting estates, making up around half of the project area) are now managed for conservation by Wildland Limited, who are reducing deer grazing intensity to allow woodland to regenerate and rewetting eroded peatlands. This has already reduced direct emissions from the deer population by nearly 88,000 tCO<sub>2</sub>e (since 2000), with further indirect emissions reductions of around 220,000 tCO<sub>2</sub>e coming from the consequent regeneration of about 2,000 hectares of natural woodland and the improved condition of over 11,000 hectares of grassland and heather moorland.