



7th Forum Carpathicum Conference Carpathian Futures - Critical Transitions

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Recommendations

WG Biodiversity

Organized based on the Strategic Objectives of the Carpathian Biodiversity Framework (CBF)

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Recommendations relevant for: CBF strategic Objective 1



Coordinate efforts on conservation, maintenance and sustainable use of natural and semi-natural habitats.

Also relevant for:

Carpathian Convention Articles: 3, 4, 5, 6, 12, 12bis, 13

Carpathian Convention Working Groups: Biodiversity, Climate Change

Carpathian Convention Protocols: Biodiversity

Associated networks: CNPA, Carpathian ESD Expert Network (CESDEN)

- Give special attention to areas with high species and habitat biodiversity (incl. rare species) that are inadequately covered by Natura 2000 sites.
- Enhance Natura 2000 network, functional coherence and connection w/Emerald Network (attn. CNPA), and with attention to ecological connectivity among protected areas.
- Discuss Identification of the land-use-related threats affecting biodiversity-rich grasslands, wetlands and forests within the **Biodiversity Working Group of the Carpathian Convention** and analyse it in relation to the Alps.
- Support research on Carpathian endemic species as key elements of biodiversity and using them to prioritise and design protected areas.
 - If not protected, many of these unique elements of Carpathian biodiversity will be lost.
- Consider broader environmental contexts, including soil properties, in policy decisions on biodiversity protection and climate change adaptation.
- Base all decision regarding the environment on relevant scientific data.
- Employ models and approaches for landscape and ecosystem assessment and participatory management.
- Promote discourse about healthy socio-ecological systems as the basis for decision-making.

Recommendations related to Invasive Species

- Use tested methods for early detection and rapid response for successful management of invasive species.

Recommendations related to Pollution

- Support research on the sources, transport, deposition and persistence, and fate of macroplastic in Carpathian valleys and in highly ecologically valuable river sections.
- Recognize the threat posed by macroplastic to fauna, especially in highly biodiverse areas and including through interactions with other key elements of the fluvial environment. Develop sound strategies for waste removal from these areas, incl. from Carpathian rivers.
- Consider the risks of trans-boundary plastic pollution to mountain river ecosystems.



Recommendations related to Large Carnivores and Human – Wildlife conflicts

- Develop and implement a unified and consistent data collection protocol on large carnivore monitoring and human-wildlife interactions within and among the countries to facilitate comparison between countries.
- Include wildlife management, human-wildlife interactions (HWI), and the understanding of wildland-urban interface in local / regional strategies.
 - Especially for areas with high or average number of incidents and species involved.
 - Assess patterns of HWI and their changes in space & time.
 - Raise awareness among policy makers about its consequences of the wildland-urban interface for humans and the environment.
- Promote positive social perceptions of human-wildlife interactions.
- Advocate for more governmental (financial) support for management to facilitate more effective and sustainable conservation outcomes.
- Establish a knowledge base of where suitable habitats exist, and where range expansions are possible for proactively promoting coexistence between people and large mammals in shared landscapes.
 - Understanding land use legacies & local context may be the key.
- Work with local authorities in charge of monitoring and conserving large carnivores to optimise management tools, especially those directed to mitigate conflicts.
- Facilitate knowledge exchange between scientists, wildlife agencies and local population to ensure that conservation and management practices are directed to promote the wellbeing of the rural communities.
- Engage different actors from regional, national and local jurisdictions in round tables to co-develop most effective ways of promoting a harmonious coexistence between humans and wildlife.
- Promote measures and effective tools for the prevention and resolution of conflicts between large carnivores and people in communities.
 - E.g. introducing electric fences among the relevant risk groups.
 - Share successful stories (people's attitude / perception is key).
- Use not only contemporary land use/land cover information, but also historical spatial data to identify and protect large carnivore habitats.
- Apply monitoring data to large carnivores and conflicts between large carnivores and people, (particularly farmers and beekeepers), in plans for the sustainable management where relevant.

Recommendations relevant for Ukraine

- Develop an appropriate mechanism for compensation of damages caused to people by rare large carnivores at the state level in Ukraine, using the experience of other Carpathian countries.
- Synchronize the monitoring of the number and distribution of large carnivores in the Ukrainian Carpathians between institutions of different subordination (nature conservation areas, foresters, nature conservationists, game experts, scientists, etc.) at the national level in accordance with the approved National action plans for the conservation of bears and lynx in Ukraine.



Sustainably manage and protect Carpathian forests

Also relevant for

Carpathian Convention Articles: 3, 4, 5, 7, 12bis

Carpathian Convention Working Groups: Biodiversity, Forestry

Carpathian Convention Protocols: Biodiversity, Sustainable Forest Management

Associated networks: CNPA

Promote adaptive and climate-smart management:

- In the **forest** sector, **restoration** should comprise a **key** element of **climate change adaptation** under the umbrella of close-to-nature forest management:
 - promote reforestation for multiple benefits, but plan for tree mortality and estimate climate benefits accurately;
 - consider natural disturbance regimes as a guide for landscape diversification; and
 - adapt and modify “close-to-nature” silviculture for restoration of old forest characteristics.
- Promote and continue to develop “climate smart” forestry practices.
- Develop, test, and implement adaptive approaches to forest management, anticipating future risks and vulnerabilities including climate extremes (e.g. drought and floods), altered disturbance regimes, spread of invasive species, and changes in forest productivity. Adaptive approaches must be tailored to the sub-regional variation expected for all symptoms of global change.

Enhance Protection of forests within and outside designated protected areas:

- Support the existing conservation measures for forest habitats in countries – parties to the Carpathian Convention – to secure effective protection of forests.
- Further promote and expand strict-protection status for virgin and quasi-virgin forests as models for closer-to-nature practices.
- In managed forests, promoting sustainable forestry practices and conservation of rare, under-represented, or sensitive ecological communities (including old-growth).
- Develop and support the use of indicator species in the herb layer of Carpathian forest ecosystems for assessing their health and conservation status; implement monitoring.

Apply more holistic approaches to Sustainable Forest Management:

- Extend “non-intervention areas” in national parks to protect sensitive species, to provide space for natural disturbance dynamics to shape habitats and forested landscapes, and to accommodate future shifts in species distributions and plant community composition.
- Promote forest planning and management practices that maintain long-term health and productivity of soil and belowground systems.
- Consider and enhance other important roles (and types) - besides timber production - of forests, e.g. in shaping local climate and particularly water retention, also in tourism (enhancing landscape values) and as buffer zones around health (spa) areas.
- Encourage forest management practices minimizing water runoff from forest-covered slopes (due to over/extensive forest road networks and clearings, etc.).

Recommendations relevant for: CBF strategic Objective 3



Cooperate on **making tourism sustainable** to maximize benefits and mitigate negative impacts.

Also relevant for:

Carpathian Convention Articles: 4, 9, 12, 13

Carpathian Convention Working Groups: Biodiversity, Sustainable Tourism

Carpathian Convention Protocols: Sustainable Tourism, Biodiversity

Associated networks: CNPA, Carpathian ESD Expert Network (CESDEN)

- Evaluate the impacts of (sustainable) tourism on the environment.
 - Focus on impact when considering sustainability of tourism (i.e. impact of the same tourist activity varies depends on scale and context).
- Engage with local stakeholders to find the best ways to promote rural activities and ecotourism in sustainable ways that also foster biodiversity conservation.
- Introduce comparable measures to assess tourist traffic into national action plans on biodiversity & sustainable tourism, e.g. in protected areas, in order to evaluate the impact on the nature resources and manage threats resulting from mass tourism.
- Harmonize and coordinate visitor monitoring and management policies, especially in transboundary protected areas, to address diverse conservation regimes and visitor management policies across Carpathian countries.
 - Conduct regular visitor monitoring using consistent methodologies and considering different tourism traditions and opportunities in each country.
 - Support research on visitor monitoring to enable implementation of best practices.
- Share examples of good practice in visitor management strategies for protected areas, both from the point of view of their effectiveness as well as their development in a participatory manner.

Recommendations relevant for: CBF strategic Objective 4



Develop **transport and related infrastructure** sustainably by implementing environmentally friendly transport models and systems

Also relevant for:

Carpathian Convention Articles: 4, 6, 8

Carpathian Convention Working Groups: Sustainable Industry, Energy, Transport and Infrastructure

Carpathian Convention Protocols: Sustainable Transport

Associated networks: CNPA

- Limit entry for motor vehicles in the vicinity of riverbeds.





Maintain **Traditional Knowledge** on traditionally cultivated land and **sustainable agriculture practices**.

Also relevant for:

Carpathian Convention Articles: 3, 4, 7, 11, 13

Carpathian Convention Working Groups: SARD, Biodiversity, Forestry, Cultural Heritage

Carpathian Convention Protocols: SARD, Biodiversity, Forestry

Associated networks: CNPA, CESDEN

- Support certified, sustainable mountain food production systems.
- Advocate for ecological and land-use policies that are integrated with local cultural practices.
- Support land-use regulations that economically incentivise and fund application of traditional ecological practices that are shown contribute to resilient and diverse ecosystems.
 - Integrate support for traditional ecological practices with related traditional cultural practices for more effective policies.
- Base decision-making on scientific research identifying biodiversity rich ecosystems threatened the most by the on-going change of land management (e.g. meadows).
- Support ecologically sound management of forests and farmland, with emphasis on the particular ecological importance of Carpathian Mountain ecosystems (e.g. natural and semi-natural pastures forming part of ecological networks, landscapes and traditional tillage practices).
- Not only maintain, but also reintroduce and support TEK and practices along with other sustainable agricultural practices, where possible.

Recommendations relevant for: CBF strategic Objective 6



Strengthen regional resilience through **climate change** mitigation and adaptation.

Also relevant for:

Carpathian Convention Articles: 12bis

Carpathian Convention Working Groups: Climate Change

Carpathian Convention Protocols: Biodiversity

Associated networks: CNPA, CESDEN

- Ensure permanent monitoring of the vertical migration of alpine species throughout the Carpathians.
- Create a platform for collecting and sharing regional data on the occurrence of alien species (monitoring for potential impacts on biodiversity).
- Strengthen cooperation between climate experts and decision makers to enhance adaptation efforts and mitigation activities.
- Develop vulnerability maps and organize dedicated local awareness-raising and training activities.
- Align adaptation strategies with elevation-dependent warming in region given the heightened drought stress of low-montane forests and enhanced collective resilience to warming of mixed montane forests.
- Develop a regional, standardized monitoring network or data sharing capabilities to enable understanding of the impacts of climate change:
 - by supporting interdisciplinary research on remote- and field-based monitoring of environmental responses.



Recommendations relevant for: CBF strategic Objective 7



Strengthen **public awareness** about the Convention's objectives by integrating **lifelong learning, global education approaches** and **cross-sectoral cooperation** into the Convention's activities.

Also relevant for:

Carpathian Convention Articles: 4, 13,

Carpathian Convention Working Groups: Biodiversity

Carpathian Convention Protocols: Biodiversity

Associated networks: CNPA, CESDEN

- Raise awareness about Carpathian Biodiversity by establishing and Celebrating Carpathian Day (September 26 in Romania), in collaboration with protected areas.
- Further use and disseminate practically tested educational tools for raising awareness about and minimising human impact on nature, e.g. Respect Nature.
- Strengthen the whole-Carpathian perspective in formal, non-formal and informal education at local level.

For Protected Areas, especially Biosphere reserves:

- Use the results of research in the field of Education for Sustainable Development (ESD).
- Strengthen education in schools, especially education on social aspects of sustainable development in the territories of biosphere reserves/protected areas.
- Strengthen and link cooperation of the scientific / university community with the administrations of protected territories/biosphere reserves.

Recommendations relevant for: CBF strategic Objective 8



Cooperate with **Ukraine** on protecting and sustainably developing the Carpathian region to address the direct and indirect impacts of the war in Ukraine on the Carpathians.

Also relevant for:

Carpathian Convention Articles: 4, 7, 13

Carpathian Convention Working Groups: Biodiversity, Sustainable Forest Management

Carpathian Convention Protocols: Biodiversity, Sustainable Forest Management

Associated networks: CNPA, CESDEN

- Support sustainable, green recovery for Ukraine utilizing ecosystem services and Nature-Based Solutions approaches.
- Facilitate cross-border cooperation in nature protection and biodiversity conservation, ensuring landscape connectivity, continuity of old-growth forests, wildlife mobility.
- Support in-country capacity development for researchers and students in relevant fields.

