

Deliverable D.T1.1.3
(draft) Carpathian strategy
for enhancing biodiversity and landscape conservation
outside and inside protected areas

Final version
01 2021

eurac
research





Table of contents

List of acronyms used	6
Preface.....	7
1. Introduction	13
2. Correspondence with international legal acts in force and strategic documents, synergy with other projects	17
3. Goal and the intervention logic of the Strategy - strategic and operational objectives.....	22
4. Recommended measures and activities	26
Strategic Objective 1 (SO1) Preservation, protection, recovery and sustainable use of plant, animal and fungi species in the Carpathian region	27
Operational Objective 1.1 (OO 1.1) Assessment of the regional and local conservation status of plant, animal and fungi species	27
Measure 1.1.1. Collection of data on plant, animal and fungi species	27
Measure 1.1.2. Development and maintenance of a database on plant, animal and fungi species	28
Measure 1.1.3. Assessment of the conservation status of plant, animal and fungi species	28
Measure 1.1.4. Identification and assessment of threats to the preservation of plant, animal and fungi species	28
Operational Objective 1.2 (OO 1.2) Planning the measures and activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species.....	29
Measure 1.2.1. Identification of the target priority species	29
Measure 1.2.2. Planning measures and activities for the preservation, protection, or recovery of species	29
Measure 1.2.3. Assessment of the need for the extension or designation of protected areas for the preservation, protection, or recovery of the target priority species.....	30
Measure 1.2.4. Planning activities for the sustainable use of wild species.....	30
Measure 1.2.5. Planning activities for the sustainable use of the local Carpathian breeds of livestock and cultivated plant varieties	31
Measure 1.2.6. Planning transboundary cooperation activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species 🌱.....	31



Operational Objective 1.3 (OO 1.3) Implementation of measures and activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species ..	32
Measure 1.3.1. Protecting habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species against external threats by promoting the principles of sustainable resource management	32
Measure 1.3.2. Protecting habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species against external threats by limiting their penetration by humans ☹	32
Measure 1.3.3. Protecting habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species against external threats by designating protective zones	33
Measure 1.3.4. Protecting habitats of target priority species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of these species against external threats by the extension or designation of protected areas ☹	33
Measure 1.3.5. Active protection of habitats of wild species	33
Measure 1.3.6. Supporting in-situ conservation of wild species populations	33
Measure 1.3.7. In-situ restoration or restitution of wild species populations	34
Measure 1.3.8. Supporting the preservation of wild species populations through ex-situ conservation ☹	34
Measure 1.3.9. Promoting the sustainable use of wild species	34
Measure 1.3.10. Supporting the sustainable use of the local Carpathian breeds of livestock and cultivated plant varieties	34
Measure 1.3.11. Consultation, harmonisation and coordination of measures and activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species undertaken in border areas ☹	35
Strategic Objective 2 (SO2) Preservation, protection, restoration and sustainable use of natural and semi-natural habitats in the Carpathian region	36
Operational Objective 2.1 (OO 2.1) Assessment of the regional and local conservation status of natural and semi-natural habitats	36
Measure 2.1.1. Collection of data on natural and semi-natural habitats	36
Measure 2.1.2. Development and maintenance of a database on natural and semi-natural habitats	36
Measure 2.1.3. Assessment of the conservation status of natural and semi-natural habitats	36
Measure 2.1.4. Identification and assessment of threats to the preservation of natural and semi-natural habitats	37
Operational Objective 2.2 (OO 2.2) Planning the measures and activities for the preservation, protection, management, restoration, and sustainable use of natural and semi-natural habitats	37



Measure 2.2.1. Identification of the target priority habitats.....	37
Measure 2.2.2. Planning activities for the sustainable use of the target priority habitats.....	37
Measure 2.2.3. Planning measures and activities for the protection, management or restoration of the target priority habitats	38
Measure 2.2.4. Assessment of the need for the extension or designation of protected areas for the preservation, protection, management or restoration of the target priority habitats	39
Measure 2.2.5. Planning transboundary cooperation activities for the preservation, protection, management, restoration, and sustainable use of the target priority habitats ☺	39
Operational Objective 2.3 (OO 2.3) Implementation of measures and activities for the preservation, protection, management, restoration, and sustainable use of the target priority habitats	40
Measure 2.3.1. Protecting the target priority habitats against external threats by promoting the sustainable use of the target priority habitats.....	40
Measure 2.3.2. Protecting the target priority habitats against external threats by promoting the principles of sustainable resource management	40
Measure 2.3.3. Protecting the target priority habitats against external threats by modifying the economic and other use of the area	40
Measure 2.3.4. Protecting the target priority habitats against external threats by limiting the extraction of natural resources	40
Measure 2.3.5. Protecting the target priority habitats against external threats by limiting the adverse effects of human penetration	41
Measure 2.3.6. Active protection, management or restoration of the target priority habitats	41
Measure 2.3.7. Protecting the target priority habitats against external threats by the extension or designation of protected areas ☺.....	41
Measure 2.3.8. Consultation, harmonisation and coordination of measures and activities for the preservation, protection, management, restoration, and sustainable use of target priority habitats undertaken in border areas ☺	41
Strategic Objective 3 (SO3) Preservation, protection, restoration, revitalization, and sustainable use of landscapes in the Carpathian region	42
Operational Objective 3.1 (OO 3.1) Assessment of the conservation status of landscapes.....	42
Measure 3.1.1. Collection of data on landscapes	42
Measure 3.1.2. Development and maintenance of a database on landscapes	42
Measure 3.1.3. Assessment of the conservation status of landscapes.....	43
Measure 3.1.4. Identification and assessment of threats to the preservation of landscapes	43



Operational Objective 3.2 (OO 3.2) Planning the measures and activities for the preservation, protection, restoration, revitalization, and sustainable use of landscapes.....	44
Measure 3.2.1. Identification of the target intervention areas for the preservation, protection, restoration, revitalization, and sustainable use of landscapes.....	44
Measure 3.2.2. Planning activities for the sustainable use of landscapes in the target intervention areas	44
Measure 3.2.3. Planning the protection of landscapes in the target intervention areas against external threats by the modifications of the economic use of the area.....	44
Measure 3.2.4. Planning the protection of landscapes in the target intervention areas by integrating the landscape preservation and protection requirements into the spatial planning at the local and regional level	45
Measure 3.2.5. Planning measures and activities for the protection, restoration and revitalization of landscapes in the target intervention areas	45
Measure 3.2.6. Assessment of the need for the extension or designation of protected areas for the preservation, protection, restoration and revitalization of landscapes in the target intervention areas	47
Measure 3.2.7. Planning transboundary cooperation activities for the preservation, protection, restoration, revitalization, and sustainable use of landscapes ☼	48
Operational Objective 3.3 (OO 3.3) Implementation of measures and activities for the preservation, protection, restoration, revitalization, and sustainable use of landscapes	49
Measure 3.3.1. Protecting landscapes in the target intervention areas by promoting the principles of sustainable economy and resource management	49
Measure 3.3.2. Protecting landscapes in the target intervention areas by modifying the economic use of the area	49
Measure 3.3.3. Protecting landscapes in the target intervention areas by the enforcement of the landscape preservation and protection requirements integrated into the spatial planning at the local and regional level	49
Measure 3.3.4. Protecting, restoring, and revitalizing landscapes in the target intervention areas	49
Measure 3.3.5. Protecting landscapes in the target intervention areas by the extension or designation of protected areas for the preservation, protection, or restoration of landscapes	50
Measure 3.3.6. Consultation, harmonisation and coordination of measures and activities for the preservation, protection, restoration or revitalization, and sustainable use of landscapes undertaken in border areas ☼	50
Strategic Objective 4 (SO4) Ensuring continuity and connectivity of natural and semi-natural habitats, landscapes, strengthening the ecological network in the Carpathian region.....	51
Operational Objective 4.1 (OO 4.1) Assessment of the local and regional state of ecological connectivity	51



Measure 4.1.1. Consolidation of data for the assessment of the local and regional state of ecological connectivity	51
Measure 4.1.2. Development and maintenance of a database on the local and regional ecological connectivity	51
Measure 4.1.3. Local and regional ecological gap assessment ☼	52
Measure 4.1.4. Identification and assessment of threats to the preservation of the local and regional ecological connectivity	52
Operational Objective 4.2 (OO 4.2) Planning the preservation, restoration, and enhancement of the local and regional ecological connectivity and ecological network	53
Measure 4.2.1. Identification of the priority ecological connectivity intervention areas	53
Measure 4.2.2. Planning the preservation, restoration, and enhancement of the local and regional ecological connectivity by the modifications of the economic use of the area.....	53
Measure 4.2.3. Planning measures and activities for the restoration or enhancement of the local and regional ecological connectivity	53
Measure 4.2.4. Assessment of the need for the extension or designation of protected areas for the preservation, restoration, or enhancement of the local and regional ecological connectivity.....	55
Measure 4.2.5. Planning transboundary cooperation activities for the preservation, restoration, or enhancement of the local and regional ecological connectivity ☼.....	55
Operational Objective 4.3 (OO 4.3) Implementation of measures and activities for the preservation, restoration, and enhancement of the local and regional ecological connectivity and ecological network	56
Measure 4.3.1. Preservation, restoration, and enhancement of the local and regional ecological connectivity by the modifications of the economic use of the area.....	56
Measure 4.3.2. Restoration or enhancement of the local and regional ecological connectivity	56
Measure 4.3.3. Preservation, restoration, and enhancement of the local and regional ecological connectivity and ecological network by the extension or designation of protected areas ☼.....	56
Measure 4.3.4. Supporting the restoration, and enhancement of the local and regional ecological connectivity and ecological network by informative, educational and awareness raising activities	56
Measure 4.3.5. Consultation, harmonization and coordination of measures and activities for the preservation, protection, restoration, and enhancement of ecological connectivity and ecological network ☼	57
5. “Checklist” for planning the implementation.....	58
6. Monitoring of effectiveness.....	59



List of acronyms used

AEWA	Agreement on the Conservation of African-Eurasian Migratory Waterbirds
CBD	Convention on Biological Diversity (Rio de Janeiro, 1992)
CC	Framework Convention on the Protection and Sustainable Development of the Carpathians (Kyiv, 2003), “Carpathian Convention”
CE	Central Europe
CNPA	Carpathian Network of Protected Areas
COP	Conference of the Parties
DTP	Danube Transnational Programme
EC	European Commission
EFA	Ecological Focus Area
ETC	European Territorial Cooperation
EU	European Union
EURAC	Eurac Research / European Academy Bozen/Bolzano
EUSDR	European Union Strategy for Danube Region
GIS	geographic information system
IAS	invasive alien species
IUCN	The International Union for Conservation of Nature
LAG	Local Action Group
MaB	Man and Biosphere Programme
NGO	non-governmental organisation
OO	operational objective
PA	protected area
SBSTTA	Subsidiary Body on Scientific, Technical and Technological Advice
SDG	Sustainable Development Goal/s
SO	strategic objective
TTTF	thematic transnational task force
UN	United Nations
UNEP	United Nations Environment Programme (UN Environment)
UNESCO	United Nations Educational, Scientific and Cultural Organization
WTP1	thematic work package No 1 of the Centralparks Interreg Central Europe project
WWF	World Wide Fund for Nature



Preface

Address by the Presidency in the Carpathian Convention

The Carpathians are a mountain range of unique beauty, with reach biological and landscape diversity and cultural heritage and with huge potential for sustainable development of local communities. They occupy a prominent place on the map of Europe and constitute an ecological, economic, cultural, recreational and living environment in the heart of Europe, shared by numerous people and countries. As a result the Carpathians play a very important role in the natural, social and economic situation of the region.

Framework Convention on the protection and sustainable use of the Carpathians, also known as the Carpathian Convention, was adopted in 2003 with the general objective to work together for the protection and sustainable development of the Carpathians with a view to improve quality of life, strengthen local economies and communities and conserve natural values and cultural heritage. Those objectives have guided work of the Convention under consecutive Presidencies, each of them carried by different Party and lasting three years.

During several years that have passed since the Carpathian Convention entered into force, the Parties defined main areas of interest that require immediate action on the transnational, national and local level. *Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity to the Framework Convention on the Protection and Sustainable Development of the Carpathians* from 2008 and *Protocol on Sustainable Tourism to the Framework Convention on the Protection and Sustainable Development of the Carpathians* from 2011 are among first sectoral protocols adopted by the Parties. Their successful implementation depends among others on the ability to communicate their objectives to the entities that should be involved in their implementation, especially at the regional and local level.

Polish Presidency in the Carpathian Convention shares the assumption on which the Centralparks project is based: that it is possible to reconcile and link the conservation of biological and landscape diversity with sustainable development of local communities and to raise their support for protected areas, and that in order to achieve this, protected areas should be properly used as the drivers and assets for the local economic development (including sustainable tourism), and benefits arising from this should be effectively communicated to the local stakeholders.

One of the priorities of the Polish Presidency in the Carpathian Convention is supporting implementation of the convention at regional and local levels. It is at those levels that the activities necessary to protect natural values of the Carpathians must be undertaken and the actions aiming at sustainable development of local communities should be designed and implemented.

Similar approach is a distinctive feature of the Centralparks project - the Strategies that we have been presented are addressed to the local level, not to the central one.



We are thankful for the efforts of the partners involved in the project that resulted in development of the *Strategy for enhancing biodiversity and landscape conservation outside and inside protected areas*, the *Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians* and *Guidelines on communication between protected areas and local communities in the Carpathians*.

Polish Presidency would also like to thank the Interreg Central Europe Programme for supporting the Centralparks project, including its work package on “Integration of biodiversity conservation and sustainable development in the Carpathian region”. It is a very valuable contribution to the implementation of the Carpathian Convention and its core elements.

Polish Presidency hopes that the results of this project will help to achieve the objectives of the sustainable development of the Carpathians.

Address by the Secretariat of the Carpathian Convention

The Carpathians are widely recognized as an important biodiversity hotspot for mountain species in Europe, including rich native flora and many rare animals. About one-third of all European vascular plants, representing 4000 species, grow in the Carpathian area. The biodiversity of invertebrates and fungi in the woods is especially remarkable. Different bird species, including migrating birds and owls have been registered in the area. Red deer, roe deer, chamois, brown hare, otter, bats and many other species are living in the area. The region is also home to one of the biggest populations of large carnivores in Europe, such as wolf, lynx, wildcat and brown bear. Due to its diverse landscape, the Carpathian Mountains host a vast variety of natural and semi-natural ecosystems, including forests, grasslands, pastures and wetlands.

The Framework Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Convention) unites seven Carpathian countries located in Eastern and Central Europe (Czech Republic, Hungary, Poland, Romania, Serbia, Slovakia, Ukraine), in a unique partnership, providing a transnational framework for cooperation and multi-sectoral policy integration. The Convention, which was signed in 2003 and ratified in 2006 by all its 7 Member States, is the only international legal framework covering the entire Carpathian region. In addition, it is the second sub-regional treaty worldwide for the protection and sustainable development of a mountain region, the first being the Alpine Convention.

Being strongly aware of the fact that efforts to protect, maintain and sustainably manage the natural resources of the Carpathians cannot be achieved by one country alone and require regional cooperation, the Secretariat of the Carpathian Convention would like to thank the Interreg Central Europe Programme for the support provided in strengthening the cooperation in the region through the Centralparks Project.



Centralparks has been developed in the framework of the Carpathian Convention, with the support of the seven Parties of the Carpathian Convention are its observers. Some of the Centralparks project partners are also long-standing partners of and observers to the Carpathian Convention but new partners also joined the consortium, opening the strong network to new frontiers of cooperation in the region. Centralparks is strategic and relevant for the entire Central Europe region and beyond and it has been mentioned as a good practice within the new EUSDR Action Plan for its support to nature protection and local sustainable development, the improvement of integrated environmental management capacities and policies and mitigation of current threats and pressures to biodiversity.

The Secretariat of the Carpathian Convention would like to also thank all the involved Carpathian national experts and scientists who, under the guidance of Stowarzyszenie Ekopsychologia, have strongly contributed to the preparation of draft “Carpathian Strategy for enhancing biodiversity and landscape conservation outside and inside protected areas”, aiming at implementing the Carpathian Convention, its Protocol on conservation and sustainable use of biological and landscape diversity (Bucharest, 2008) and relevant provisions and COP decisions on biodiversity, in harmony with and support to all applicable EU and relevant national policies.

Mountain ecosystems are important for a healthy planet and their conservation is a key factor for sustainable development, as also mentioned in Goal 15 of the Sustainable Development Goals. The Centralparks project activities, carried out in cooperation with the Carpathian Convention and the Carpathian Network of Protected Areas, are strengthening collaborative efforts in addressing the global biodiversity crisis at the subregional scale.

While strongly implementing the Carpathian Convention and supporting the network protected areas in the region, the work developed under Centralparks and its Thematic Transnational Task Forces (TTTFs) will also contribute to the implementation of the global and European policies in the Carpathian region, such as the 2030 Agenda for Sustainable Development, Convention on Biological Diversity and its future Post-2020 Global Biodiversity Framework, the European Green Deal and the EU 2030 Biodiversity Strategy.

The ambition and expectations are high, but the protection of the Carpathian precious biodiversity and its inhabitants’ livelihood deserves the maximum of the joint efforts.

Address by EURAC Research

Eurac Research, in the role of **Centralparks** lead partner, would firstly thank all the involved Carpathian experts, under the guidance of Stowarzyszenie Ekopsychologia, for their constructive and crucial contribution to the preparation of the present strategy, a significant step forward to the urgent establishment of a new and consistently harmonized biodiversity protection framework for the Carpathian region. Thanks to many years of fruitful collaboration with the Secretariat of the Carpathian Convention, Eurac Research has been awarded as one of the most significant scientific partners for the Convention.



Indeed, the Eurac Research Institute for Regional Development was invited to present the Protocol on Sustainable Agriculture and Rural Development at the Conference of the Parties (COP), the main decision-making body of the Framework Convention on the Protection and Sustainable Development of the Carpathians. Eurac's contribution to biodiversity protection has been demonstrated through the numerous projects in which it has been directly involved, both in the Carpathians and the Alps¹.

The Coronavirus, which has spread all over the planet, had its origin in a problem related to biodiversity. In a case of zoonosis, the transmission of disease from animals to humans was triggered by human interference in wildlife and is now transforming the world as we know it. This strategy is a landmark moment for the efforts made so far, since the much sought-after Carpathian synergies are all going in the same direction: strategically act to develop a lasting plan to implement broad-based actions to bring about a transformation in society's relationship with biodiversity.

A special thanks to the **Interreg Central Europe Programme**², which fosters the materialization of important synergies in countries of increasing importance for Europe's future. This has been demonstrated by the constant support granted to the project and the implementation of the WPT1 **"Integration of biodiversity conservation and sustainable development in the Carpathian region"** as well as the work of its multinational expert group, the **Thematic Transnational Task Force (TTTF) on biodiversity and landscape conservation**, specifically.

Following the **EU Biodiversity Strategy for 2030**³, to put biodiversity on the path of recovery by 2030, we need to increase the efforts regarding the protection and restoration of nature. This task can be also undertaken by improving the defence and conservation of Carpathian protected areas (PAs). The present strategy is the right instrument aiming at recovering the health of our protected areas and restore a diverse and resilient environment to all landscapes and ecosystems. The EU has already aligned with the United Nations (UN) proposals presented in the Zero Draft of the **CBD post-2020 global biodiversity framework** to underline how an international and integrated approach is now demanded more than ever.

As the human population and its demand for natural resources continues to increase, its impact on the planet will likely intensify. This evolution makes the conservation of the natural environment - on which humans depend for key ecosystem services, such as clean air, forests, wildlife, and water - very challenging. To address this challenge, the strategy aims at understanding the spatial and temporal patterns of human influences on biodiversity. Wilderness areas, such as the Carpathians, represent one of the planet's last large contiguous regions with little to no human influence. They are important not only for preserving biodiversity but also for contrasting climate change and especially for supporting local communities.

1 (1) <http://www.bioregio-carpathians.eu> (2) <http://www.greenalps-project.eu> (3) <https://www.alpine-space.eu/projects/alpbionet2030/en/home> (4) <https://lifestockprotect.info> (5) <https://www.lifewolfalps.eu>
2 <https://www.interreg-central.eu/Content.Node/home.html>
3 <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1590574123338&uri=CELEX:52020DC0380>



All PAs will need to have clearly defined conservation and monitoring objectives and measures. However, protecting and restoring nature need more than just regulation. It requires action by citizens, businesses, social partners, and the research and knowledge community, as well as strong partnerships at local, regional, national, and European levels.

The **protocol on biodiversity of the Carpathian Convention⁴** is based on connected principles: the acknowledgment of the contribution of local populations to sustainable social, cultural, and economic development and the preservation of traditional knowledge in the Carpathians; the awareness that efforts to protect, maintain and sustainably manage the Carpathians' natural resources cannot be made by one country alone but require **regional cooperation**; and the recognition of the **added value of cross-border cooperation in achieving biodiversity protection coherence**.

While there have been some important achievements over the past decade, many constraints and challenges persist, such as a still scarce coverage of landscape diversity protection by the Carpathian Convention protocols and lack of valid long-term management plans or delays in their revision in many PAs in the Carpathians. The relevance of this strategy lies in the **innovative recommendations and updated hints** that should be adopted to address these important weaknesses. Although reasons varied, PAs alone are unlikely to be successful in protecting wilderness areas, and the Carpathians are a clear example. To achieve protection, it is important to **address loss and improve environmental governance and management plans**. The socio-economic factors driving the increases in human footprints within the mountain PAs must be coherently addressed. Effective management of the PAs and successful governance is imperative since it is clear that in some mountain areas, human pressure has intensified within them. The present strategy takes that direction.

Furthermore, the work provided by the experts emphasizes the need to capture the social impacts of PAs and understand how ecosystem management interacts with the social-economic system. This is particularly important for the Carpathians and similar mountain regions, where EU designations exist alongside national legislation, interacting in various ways with the variety of cultures that exist in these regions.

The long-term expectation is that the implementation of the strategy will contribute to achieving the 2030 Agenda for Sustainable Development⁵ goals of building the capacity of the mountain ecosystems and their biodiversity, to provide essential benefits for sustainable development, reducing the degradation of natural habitats, and halting the loss of biodiversity. Biodiversity protection does not mean to reduce the human presence within the PAs, but rather acknowledging the existence of optimum ways of co-managing PAs across the Carpathian regions, guaranteeing positive socio-economic impacts on communities living near them, and reaching biodiversity conservation targets while protecting people's livelihood.

4 <http://www.carpathianconvention.org/protocol-on-biodiversity.html>

5 United Nations General Assembly Resolution A/RES/70/1 Transforming our world: the 2030 Agenda for Sustainable Development, Targets: 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage; 15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development; 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species. <https://sdgs.un.org/2030agenda>



Address by the Ekopsychology Society

The Ekopsychology Society is based in the Polish part of the Carpathian region, which includes parts of the three provinces characterized by the highest population density in rural areas (in two - over twice the average for the country), while protected areas of different categories encompass almost 70% of this territory (e.g. 6 national and 13 landscape parks cover around one third, hence thrice the country average). Under such circumstances, nature and landscape conservation cannot be effective without the support and broad involvement of the local communities.

However, in addition to their role for biodiversity and landscape conservation, protected areas can also become drivers and assets for the sustainable local economic development, which is one of the basic assumptions and main objectives of the Centralparks project, being already the 20th project implemented by the Ekopsychology Society in support of the Carpathian Convention since 2003.

We highly value the fact that under the Centralparks project we could simultaneously pursue our several statutory objectives, related to the protection of natural and cultural heritage, support for local sustainable development, and fostering the involvement of the local communities in the implementation of the Carpathian Convention and its thematic Protocols.

The Centralparks project allowed us to pool, use and share the experience and expertise acquired in the course of many projects to which the Ekopsychology Society previously contributed, including "Carpathians Unite - mechanism of consultation and cooperation for implementation of the Carpathian Convention" (co-financed by the Swiss Contribution), "Carpathian Space - Spatial planning as a tool for nature protection in the Carpathians" (EU), "Carpathian University of Participation" (EEA and Norway Grants), "INRUTOU - Innovation in Rural Tourism" (EU), "Supporting the sustainable development of the Carpathians through environmentally friendly tourism" (EEA and Norway Grants).

We would like to thank the Interreg Central Europe Programme for supporting the Centralparks project, including its work package "Integration of biodiversity conservation and sustainable development in the Carpathian region", for which the Ekopsychology Society is responsible. This project was another great opportunity for us to contribute to the implementation of the Convention in a constructive manner, allowing to identify common transnational approaches and innovative solutions to challenges vital for our shared Carpathian region.

We would like to thank all project partners and experts who contributed to the work of the Centralparks Thematic Transnational Task Force, whose involvement and constant dedication allowed to draft the Carpathian strategy for enhancing biodiversity and landscape conservation outside and inside protected areas.

We sincerely hope that this strategy will become a useful tool for its target audience, and facilitate building strong partnerships between protected area administrations, regional and local community authorities, and other relevant stakeholders (as stipulated by the EU Biodiversity Strategy for 2030), for the implementation of the Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity to the Framework Carpathian Convention.



1. Introduction

The Carpathian Mountains are the third longest (after the Ural Mts. and Scandinavian Mts.) European mountain range, stretching along some 1,500 km between the Czech Republic and Austria in the west, and eastern Serbia in the south. The Carpathian region encompasses approx. 209,000 km², covering considerable parts of the Slovak Republic and Romania, as well as vast border areas of the Czech Republic, Hungary, Poland, Ukraine, and Serbia. Unique natural and cultural heritage values of this region, shared by seven Parties to the Carpathian Convention, are usually best preserved inside and around countless protected areas. As of January 2021, as many as 323 of protected areas in the Carpathian region exceeded 100 ha in size, including 43 national parks, 8 nature parks, 2 geoparks, 19 landscape parks, 38 protected landscape areas, 168 nature reserves, 38 nature monuments, and 7 other protected sites.

The Strategy for enhancing biodiversity and landscape conservation outside and inside protected areas (further as “the Strategy”) aims to support, facilitate, and enhance the implementation of the Framework Convention on the Protection and Sustainable Development of the Carpathians (Kyiv, 2003) and its thematic Protocol on conservation and sustainable use of biological and landscape diversity (Bucharest, 2008) at the local and regional level, as well as foster the achievement of the objectives of the EU Biodiversity Strategy for 2030 “Bringing nature back into our lives”.

The target audience of the Strategy are:

- administrations of protected areas, nature conservation and landscape protection agencies and other nature and landscape conservation bodies and authorities
- local communities, including municipal and regional authorities

in the Carpathian region

Accordingly to the Interreg Central Europe Programme, the main result of activities under the Programme priority specific objective 3.1 shall be *“Improved integrated environmental management capacities of the public sector and related entities for the protection and sustainable use of natural heritage and resources in central Europe achieved through transnational cooperation”*.

The aim of the Centralparks project is to build management capacities of Carpathian protected areas (further as “PAs”). Hence, the most obvious target audience, users and end beneficiaries of the Strategy are the public nature/landscape conservation authorities, in particular the administrations of PAs in the Carpathian region.

However, the term ‘public sector’ relates also to the local and regional community authorities, which, depending on the national legislation of a country concerned, can either be directly responsible for the management of some PA categories (e.g. locally or regionally designated PAs), or have the decisive powers on planning the land-use and development inside and outside PAs.



The Strategy, once effectively disseminated to its target audiences, shall provide guidance for:

- administrations of PAs, nature conservation and landscape protection agencies and other nature and landscape conservation bodies and authorities, preparing or updating PA management and/or conservation plans
- local communities, municipal and regional authorities preparing or updating their relevant local or regional planning documents (related to environment protection, nature and landscape conservation, land-use, development)

It should be noted, that, as at 2021, in many Carpathian PAs valid long-term conservation and/or management plans are missing, while in some other cases the validity of the current plans would soon expire, so that these PAs would soon be required to develop their new plans, replacing the outdated ones.

Taking into account that this Strategy can be applied by all local communities, including municipal and regional authorities - it can influence either the whole, or at least a considerable part of the Carpathian region.

Although the designation of protected areas is one of the most effective tools for the preservation, conservation, protection, restoration and sustainable use of biological and landscape diversity, protected areas alone are not enough sufficient for safe-keeping these values. Also due to the fact, that many different factors limit the size of areas that can be excluded from the economically used territories for the conservation purposes. Hence, a significant proportion of biological and landscape diversity is located outside of protected areas, often remaining well beyond the scope of responsibilities and influence of PA administrations.

Furthermore, protected areas in the Carpathians are usually part of a broader mosaic of man-altered landscapes, often surrounded by densely populated municipalities, thus cannot perform their functions acting as the stand-alone “isolated islands”. The environmental situation, human economic activities and land development outside the PA territory (in its external buffer zone, or other adjacent, neighbouring or surrounding areas) are often the sources of threats, and have direct impacts and adverse effects on e.g. the ecological connectivity issues, conservation status of ecosystems, habitats, and species inside PA, conditions for implementing PA operations, and largely influence the efficiency of protective measures undertaken inside the PA.

However, the still growing ecological awareness and involvement of the local communities, their different interest groups, and other relevant local stakeholders can make the economic activities (e.g. agriculture, forestry, tourism development) more sustainable, and more compatible with biological and landscape diversity conservation.

This is why the high natural values of the Carpathian region have successfully been preserved until today, despite that only some 18% of the Carpathian ecoregion have been designated as protected areas⁶.

⁶ ConnectGREEN. Ecological connectivity, the web of life for people and nature
http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/00%20NEWS/connectgreen.pdf



The implementation of this Strategy by the local stakeholders will bring the following expected results:

- increased capacities of PA managers, involvement and support of local communities and authorities
- enhancement of biological and landscape diversity conservation outside and inside protected areas and improvement of ecosystem services provided by protected areas and ecosystems outside protected areas
- preservation and improvement of ecological connectivity
- integration of the Carpathian protected areas into broader landscapes
- implementation of the Protocol on conservation and sustainable use of biological and landscape diversity (Bucharest, 2008) to the Framework Convention on the Protection and Sustainable Development of the Carpathians (Kyiv, 2003).

It should be noted, that this Strategy duly takes into account the need for the preservation, maintenance and restoration of landscape values of the Carpathian region, compared to all other strategic documents previously adopted under the Framework Convention on the Protection and Sustainable Development of the Carpathians (Kyiv, 2003) and its thematic Protocol (e.g. the Strategic Action Plan for the implementation of the Protocol, adopted in 2011 at the Third Meeting of the Conference of the Parties).

Another distinctive feature and an obvious advantage for the implementation of this strategy is that, compared to the strategic documents previously adopted under the Convention, it is addressed to the local stakeholders, not the central Governments. The above results from the intervention logic of the Centralparks project, translating the motto "think globally, act locally" into the Carpathian context.

It should also be emphasized, that due to the above "local action focus", this strategy is a kind of a compendium of recommended measures and activities that proved to be efficient inside and/or outside PAs. The local stakeholders as the 'end-users' and beneficiaries of this Strategy shall select the most proper and feasible measures and activities, accordingly to the local priorities, needs, and management challenges, as well as the capacities of the local partners implementing the Strategy, and the specific local socio-economic context.

The intervention logic of the Centralparks thematic Work Package No 1 "Integration of biodiversity conservation and sustainable development in the Carpathian region" was the synergy of the three compatible project outputs, simultaneously prepared by the three Centralparks multinational expert groups (Thematic Transnational Task Forces, TTTFs).



The basic WTP1 assumption was that the reconciliation, linking the conservation of biological and landscape diversity to sustainable local socio-economic development, and raising the support of local communities for protected area operations is possible, if well protected natural and landscape values are properly used as the drivers and assets for the local economic development (including sustainable tourism development), while the conservation objectives, and benefits arising from the above synergy are effectively communicated to the local stakeholders.

Therefore, the two other compatible outputs of the Centralparks project also contain recommendations and solutions supporting the conservation of biological and landscape diversity outside and inside protected areas.

The strategy concerning the local sustainable tourism development indicates measures and activities which can prevent or mitigate possible adverse effects of tourism and related infrastructure developments on the biological and landscape diversity, while the Guidelines on communication between protected areas and local communities include issues related to raising the ecological awareness of tourists coming to the Carpathian protected areas, and the sense of the common ownership and responsibility for protected areas among the local residents.

Due to the above, it is recommended that the local stakeholders enhance the implementation of this Strategy by applying the two other Centralparks mutually reinforcing tools: the Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians, and the Guidelines on communication between protected areas and local communities in the Carpathians.



2. Correspondence with international legal acts in force and strategic documents, synergy with other projects

This Strategy aims to support, facilitate, and enhance the implementation of the **Framework Convention on the Protection and Sustainable Development of the Carpathians** (Kyiv, 2003) and its thematic **Protocol on conservation and sustainable use of biological and landscape diversity** (Bucharest, 2008, further the Protocol) at the local and regional level.

The Strategy provides guidance on measures and activities towards the preservation, maintenance and restoration of biodiversity and landscape values of the Carpathian region (pursuant to Article 4⁷ of the Convention), with the involvement of the local stakeholders, and in transboundary cooperation (thus in line with the general objectives and principles of the Convention, determined in its Article 2⁸).

The objectives of this Strategy correspond with the provisions of the above mentioned Protocol, concerning the conservation and restoration of habitats (Articles 8 and 10 of the Protocol⁹), maintenance and restoration of the ecological continuity and connectivity (Article 9¹⁰), conservation of species (Articles 11 and 12¹¹), prevention of introduction of invasive alien species, their control or eradication (Article 13¹²), measures to be undertaken outside the protected areas (Article 15¹³), and transboundary cooperation on the above (Article 16¹⁴), as well as the involvement of the local stakeholders (Article 6¹⁵) and the preservation of landscapes (mentioned in numerous Articles of the Protocol, but always solely in the “biological and landscape diversity” phrase context).

⁷ The Framework Convention on the Protection and Sustainable Development of the Carpathians (Kyiv, 2003), Article 4 Conservation and sustainable use of biological and landscape diversity, paragraph 1. The Parties shall pursue policies aiming at conservation, sustainable use and restoration of biological and landscape diversity throughout the Carpathians. The Parties shall take appropriate measures to ensure a high level of protection and sustainable use of natural and semi-natural habitats, their continuity and connectivity, and species of flora and fauna being characteristic to the Carpathians, in particular the protection of endangered species, endemic species and large carnivores; paragraph 2. The Parties shall promote adequate maintenance of semi-natural habitats, the restoration of degraded habitats, and support the development and implementation of relevant management plans (...) paragraph 5. The Parties shall cooperate in developing an ecological network in the Carpathians, as a constituent part of the Pan-European Ecological Network, in establishing and supporting a Carpathian Network of Protected Areas, as well as enhance conservation and sustainable management in the areas outside of protected areas (...).

<http://www.carpathianconvention.org/text-of-the-convention.html>

⁸ The Framework Convention on the Protection and Sustainable Development of the Carpathians, Article 2, paragraph 2. In order to achieve the objectives referred to in paragraph 1, the Parties shall take appropriate measures, in the areas covered by Articles 4 to 13 of this Convention by promoting (...) (c) public participation and stakeholder involvement, (d) transboundary cooperation.

⁹ Protocol on conservation and sustainable use of biological and landscape diversity (Bucharest, 2008), Article 8 Conservation, maintenance, restoration and sustainable use of natural and semi-natural habitats. Article 10 Restoration of degraded habitats <http://www.carpathianconvention.org/protocol-on-biodiversity.html>

¹⁰ Protocol on conservation and sustainable use of biological and landscape diversity, Article 9 Continuity and connectivity of natural and semi-natural habitats, ecological network in the Carpathians

¹¹ Protocol on conservation and sustainable use of biological and landscape diversity, Article 11 Conservation and sustainable use of species of flora and fauna of the Carpathians. Article 12 Conservation of endangered species including endemic species, and large carnivores of the Carpathians.

¹² Protocol on conservation and sustainable use of biological and landscape diversity, Article 13 Prevention of the introduction of invasive alien species and/or genetically modified organisms threatening ecosystems, habitats or species, their control or eradication

¹³ Protocol on conservation and sustainable use of biological and landscape diversity, Article 15 Enhancing conservation and sustainable management in the areas outside of protected areas

¹⁴ Protocol on conservation and sustainable use of biological and landscape diversity, Article 16 Consultation, harmonisation and coordination of measures undertaken in border areas

¹⁵ Protocol on conservation and sustainable use of biological and landscape diversity, Article 6 Participation of regional and local authorities, and other stakeholders



This Strategy translates into the language of local actions numerous provisions of the **Strategic Action Plan (SAP)** for the implementation of the Protocol, adopted in 2011 at the Third Meeting of the Conference of the Parties for the period of the next twelve years (until 2023), feasible for their implementation at the local level.

Another legal basis for developing this Strategy was the **Convention on Biological Diversity** (Rio de Janeiro, 1992), (further as CBD) where the Parties committed to cooperate with other Parties (article 5¹⁶), and develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity (Article 6¹⁷).

The implementation of this Strategy shall foster the achievement of the CBD objectives, by e.g. enhancing the in-situ conservation of biological resources within or outside protected areas, promoting the protection and restoration of ecosystems and natural habitats, and the maintenance of viable populations of species in natural surroundings, as well as environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas (Article 8¹⁸).

Moreover, this Strategy reflects the goals, and provides a follow-up to the **CBD Strategic Plan for Biodiversity 2011-2020**¹⁹ and its corresponding Aichi Biodiversity Targets, by e.g. integrating biodiversity values into the local development planning processes (Aichi Target 2), preventing the loss, degradation, and fragmentation of natural habitats (Target 5), ensuring the conservation of biodiversity in areas under forestry and agriculture (Target 7), enhancing the conservation of terrestrial areas of particular importance for biodiversity and ecosystem services, improving the connectivity between protected areas, and integrating such into the wider landscapes (Target 11), preventing the extinction and improving the conservation status of threatened species (Target 12), promoting the maintenance of the genetic diversity of cultivated plants and farmed and domesticated animals (Target 13), safeguarding and encouraging the restoration of ecosystems (Target 14), and enhancing traditional practices of local communities relevant for the conservation and sustainable use of biodiversity (Target 15).

¹⁶ Convention on Biological Diversity (Rio de Janeiro, 1992), Article 5. Cooperation. Each Contracting Party shall, as far as possible and as appropriate, cooperate with other Contracting Parties, directly or, where appropriate, through competent international organizations, in respect of areas beyond national jurisdiction and on other matters of mutual interest, for the conservation and sustainable use of biological diversity. <https://www.cbd.int/convention/text/>

¹⁷ Convention on Biological Diversity, Article 6. General Measures for Conservation and Sustainable Use. Each Contracting Party shall, in accordance with its particular conditions and capabilities: (a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, inter alia, the measures set out in this Convention relevant to the Contracting Party concerned (...)

¹⁸ Convention on Biological Diversity, Article 8. In-situ Conservation. Each Contracting Party shall, as far as possible and as appropriate: (...) (c) Regulate or manage biological resources important for the conservation of biological diversity whether within or outside protected areas, with a view to ensuring their conservation and sustainable use; (d) Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings; (e) Promote environmentally sound and sustainable development in areas adjacent to protected areas with a view to furthering protection of these areas; (f) Rehabilitate and restore degraded ecosystems and promote the recovery of threatened species, inter alia, through the development and implementation of plans or other management strategies (...).

¹⁹ CBD Decision X/2. The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets
<https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-02-en.pdf>

Furthermore, the objectives of this Strategy correspond to several targets determined by Zero Draft of the **CBD post-2020 Global Biodiversity Framework** of 6 January 2020, further upgraded by the CBD Open-ended Working Group on the Post-2020 Global Biodiversity Framework²⁰, concerning ecosystems restoration, spatial planning, ecological connectivity and integrity issues (Target 1), protected areas, and area-based conservation measures (Target 2), control or eradication of invasive alien species (Target 3), integration of biodiversity into local planning, and development processes (Target 13), capacity building (Target 15), and participation of local communities (Target 19), while the involvement of relevant stakeholders and local authorities is also perceived as an enabling condition facilitating the implementation of the framework).

The implementation of this Strategy, aimed at strengthening efforts towards protecting and safeguarding the natural heritage of the Carpathian region, ensuring the conservation of mountain ecosystems, protection of threatened species, halting the loss of biodiversity and degradation of natural habitats, and integrating biodiversity values into local planning, shall foster the successful achievement of the goals set by the **2030 Agenda for Sustainable Development**, and resulting SDG Targets 11.4, 15.4, 15.5, and 15.9²¹.

The Strategy shall also support the implementation of the **Convention concerning the Protection of the World Cultural and Natural Heritage**²² (Paris, 1972), the **Convention on Wetlands of International Importance Especially as Waterfowl Habitat**²³ (Ramsar, 1971), the **Convention on the Conservation of Migratory Species of Wild Animals**²⁴ (Bonn, 1979) and its instruments, the **Convention on the Conservation of European Wildlife and Natural Habitats**²⁵ (Bern, 1979), the **European Landscape Convention**²⁶ (Florence, 2000), and the relevant **EU Directives** (Habitats Directive²⁷, Birds Directive²⁸).

²⁰ <https://www.cbd.int/doc/c/da8c/9e95/9e9db02aaf68c018c758ff14/wg2020-02-03-en.pdf>
<https://www.cbd.int/conferences/post2020/wg2020-02/documents>

²¹ United Nations General Assembly Resolution A/RES/70/1 Transforming our world: the 2030 Agenda for Sustainable Development, Targets: 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage; 15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development. 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species; 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts
<https://sustainabledevelopment.un.org/post2015/transformingourworld>

²² UNESCO, (1972): Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)
<http://whc.unesco.org/archive/convention-en.pdf>

²³ The Convention on Wetlands (Ramsar, Iran, 1971) (Ramsar Convention)
https://www.ramsar.org/sites/default/files/documents/library/current_convention_text_e.pdf

²⁴ UNEP (1979): Convention on the Conservation of Migratory Species of Wild Animals (CMS, Bonn Convention) and its instruments
<https://www.cms.int/en/legalinstrument/cms>

²⁵ Council of Europe (1979) Convention on the Conservation of European Wildlife and Natural habitats (Bern Convention)
<https://www.coe.int/en/web/conventions/full-list/-/conventions/rms/0900001680078aff>

²⁶ Council of Europe, (2000) The European Landscape Convention (Florence Convention)
<https://www.coe.int/en/web/landscape/text-of-the-european-landscape-convention>

²⁷ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive)
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>

²⁸ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (Birds Directive) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0147>



Furthermore, the implementation of this Strategy shall facilitate the achievement of the objectives of the **EU Biodiversity Strategy for 2030**²⁹, emphasizing the importance of setting up ecological corridors to prevent genetic isolation, allow for species migration, and maintain and enhance healthy ecosystems; as well as the need for cooperation across borders among Member States, and the involvement of citizens, social partners, and the research community.

An indispensable precondition for the successful implementation of this Strategy are strong partnerships between protected areas, local communities, local and regional authorities in the Carpathians, allowing to undertake joint actions for the benefit of nature and local inhabitants, as stipulated by the **EU Biodiversity Strategy for 2030**³⁰.

This Carpathian Strategy supports also implementation of the **EU Regulation on invasive alien species**³¹.

The Strategy takes into account the outcomes of **several multinational initiatives and projects** recently undertaken in the Carpathian region, e.g. the measures and activities recommended by the Carpathian Wetland Initiative (Regional Initiative of the Ramsar Convention), the draft International Action Plan for the conservation and sustainable management of the Carpathian large carnivores populations, elaborated by the Working Group on conservation and sustainable use of biological and landscape diversity of the Carpathian Convention, recommendations included in the Common Integrated Management Measures for key natural assets in the Carpathians³² and in the study on ecological connectivity in the Carpathians³³ developed under the BioREGIO Carpathians project “Integrated Management of Biological and Landscape Diversity for Sustainable Regional Development and Ecological Connectivity in the Carpathians”³⁴, supported by the ETC Programme South East Europe; as well as the relevant recommendations of the Guidelines³⁵ elaborated under the TRANSGREEN Project “Integrated Transport and Green Infrastructure Planning in the Danube-Carpathian Region for the Benefit of People and Nature”³⁶, supported by the EU Interreg Danube Transnational Programme (DTP).

²⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - EU Biodiversity Strategy for 2030 Bringing nature back into our lives COM/2020/380 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1590047327627&uri=COM:2020:380:FIN>

³⁰ EU Biodiversity Strategy for 2030: “protecting and restoring nature will need more than regulation alone. It will require action by citizens, businesses, social partners and the research and knowledge community, as well as strong partnerships between local, regional, national and European level”.

³¹ Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1417443504720&uri=CELEX:32014R1143>

³² Appleton M. R. and Meyer, H. Editors. (2014). Development of Common Integrated Management Measures for Key Natural Assets in the Carpathians. Work Package 4. Integrated Management of Biological and Landscape Diversity for Sustainable Regional Development and Ecological Connectivity in the Carpathians. WWF Danube-Carpathian Programme, Vienna.

http://www.bioregio-carpathians.eu/tl_files/bioregio/downloads_resources/Key%20Outputs%20and%20Publication/CIMM_study_05.07.2014.pdf

³³ Favilli, F., Hoffmann, Ch., Mariachiara A. & Elmi M. (2014). Strategies & Recommendations to sustain, restore & enhance Ecological Connectivity in the Carpathians. Eurac Research, European Academy of Bolzano.

http://www.bioregio-carpathians.eu/tl_files/bioregio/downloads_resources/Key%20Outputs%20and%20Publication/Recommendations_Connectivity_EURA_C.pdf

³⁴ BioREGIO Carpathians project http://www.bioregio-carpathians.eu/home_bioregio.html

³⁵ TRANSGREEN project. Wildlife and Traffic in the Carpathians. Guidelines how to minimize the impact of transport infrastructure development on nature in the Carpathian countries. Part of Output 3.2 Planning Toolkit. April 2019. http://www.interreg-danube.eu/uploads/media/approved_project_output/0001/35/02caaaf3c1c1365f76574e754ddbdc4e1af4a7a.pdf

³⁶ TRANSGREEN project <http://www.interreg-danube.eu/approved-projects/transgreen>



Furthermore, this Strategy, due to its focus on measures feasible for implementation at the local level, shall additionally reinforce, and be complementary to the Action Plan on ecological connectivity in the Carpathians, elaborated under another DTP-supported project ConnectGREEN “Restoring and managing ecological corridors in mountains as the green infrastructure in the Danube basin”³⁷.

The Strategy will also support implementation of recommendations of the UN Environment, WWF and Eurac Research study on combating wildlife and forest crime in the Danube-Carpathian region³⁸ (by promoting integrated rural and local development, developing an inventory of the old growth forests, and increasing awareness of the public on the importance of virgin forests).

In the above regional context it is worth to mention that this Strategy is targeted at the local stakeholders within the whole Carpathian region, thus also in its parts remaining beyond the geographical scope of the application of the European Union Strategy for Danube Region³⁹ (EUSDR) and the accompanying Action Plan⁴⁰, revised in 2020.

³⁷ ConnectGREEN project <http://www.interreg-danube.eu/approved-projects/connectgreen>

³⁸ Schlingemann, I., de Bortoli, I., Favilli, F., Egerer, H., Musco, E., Lucas, T., Lucius, I. (Eds), 2017. Combating Wildlife and Forest Crime in the Danube-Carpathian Region. A UN Environment - Eurac Research - WWF Report
http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/02%20Activities/Biodiveristy/UN%20Environment-WWF-Eurac%20Booklet%20on%20wildlife%20and%20forest%20crime%20in%20the%20Danube%20Carpathian%20Region.pdf

³⁹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - European Union Strategy for Danube Region * COM/2010/0715 final *
<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0715>

⁴⁰ Commission Staff Working Document SWD(2020) 59 final. Action Plan accompanying the European Union Strategy for Danube Region
https://ec.europa.eu/regional_policy/sources/cooperate/danube/eusdr_actionplan_sw202059_en.pdf



3. Goal and the intervention logic of the Strategy - strategic and operational objectives

The overall **goal** of this Strategy is to enhance the conservation of the biological and landscape diversity of the Carpathian region⁴¹ outside and inside protected areas.

The **intervention logic of the Strategy** is based on the relations between its overall goal, corresponding strategic objectives (SOs), resulting operational objectives (OO), and recommended measures and activities.

The majority of **strategic objectives** of this Strategy results from, and corresponds with the Articles of the Protocol on conservation and sustainable use of biological and landscape diversity (Bucharest, 2008) to the Framework Convention on the Protection and Sustainable Development of the Carpathians (Kyiv, 2003).

The first three strategic objectives (SOs) concern the preservation (passive conservation approach, and efforts towards safe-keeping), active protection, recovery, restoration (or revitalization), and the sustainable use of:

- plant, animal and fungi species (SO1, corresponding with Articles 11 and 12⁴² of the Protocol)
- natural and semi-natural habitats (SO2, corresponding with Articles 8 and 10⁴³ of the Protocol)
- landscapes (SO3, merely mentioned in the Protocol).

The fourth strategic objective (SO4) concerns the continuity and connectivity of natural and semi-natural habitats (Article 9, paragraph 1⁴⁴ of the Protocol) and the landscape connectivity, as well as strengthening the ecological network in the Carpathian region (Article 9, paragraphs 2 and 3⁴⁵ of the Protocol).

⁴¹ Carpathian region understood as the area within the geographical scope of application of the Framework Convention on the Protection and Sustainable Development of the Carpathians (Kyiv, 2003)

http://www.carpathianconvention.org/carpathian_administrative_units.html,
<https://maps.eea.europa.eu/EEAViewer/?appid=fa27e9737d4a4258bf31cc7bfd7a772e>

⁴² Protocol on conservation and sustainable use of biological and landscape diversity, Article 11 Conservation and sustainable use of species of flora and fauna of the Carpathians. Article 12 Conservation of endangered species including endemic species, and large carnivores of the Carpathians.

⁴³ Protocol on conservation and sustainable use of biological and landscape diversity (Bucharest, 2008), Article 8 Conservation, maintenance, restoration and sustainable use of natural and semi-natural habitats. Article 10 Restoration of degraded habitats

⁴⁴ Protocol on conservation and sustainable use of biological and landscape diversity, Article 9 Continuity and connectivity of natural and semi-natural habitats, ecological network in the Carpathians, paragraph 1. Each Party shall take measures in its national territory with the objective to improve and ensure continuity and connectivity of natural and semi-natural habitats in the Carpathians, thus allowing dispersal and migration of wild species populations particularly of large carnivores, and genetic exchange between such populations.

⁴⁵ Protocol on conservation and sustainable use of biological and landscape diversity, Article 9 Continuity and connectivity of natural and semi-natural habitats, ecological network in the Carpathians, paragraph 2. Each Party shall maintain, manage and, if need be, expand existing protected areas in its national territory in the Carpathians, and encourage the designation and management of new protected areas in the Carpathians. paragraph 3. The Parties shall cooperate on establishing an ecological network in the Carpathians, composed of protected areas and other areas significant for biological and landscape diversity of the Carpathians and for coherence of the network.



Hence, SO4 in correspondence with the previous three SOs, aims at enhancing both the structural and functional connectivity of the interrelated Carpathian ecosystems at the landscape level, following the approach acknowledged⁴⁶ by the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) towards the achievement of Aichi Target 7.

The above four equally important strategic objectives are closely inter-connected, but the recommended measures and activities had been grouped under separate SOs for the reasons of clarity. For instance, the effective protection of species requires both the habitat conservation, and the preservation or restoration of the ecological connectivity of their habitats. Similarly, the preservation and protection of habitats has to go hand in hand with the preservation and protection of landscapes.

Each strategic objective comprises three **operational objectives**, structured in the logical sequence, concerning:

- data collection and database maintenance, assessment of the conservation status, identification of threats
- identification of priorities for intervention, and planning relevant measures and activities
- implementation of previously planned priority measures and activities.

It should be noted, that the above second step in the sequence of the operational objectives of the Strategy can particularly be valuable for its target audience when preparing or updating protected area management and/or conservation plans, as well as the local or regional planning documents, related to environment protection, nature conservation, land-use, and land development (thus, supporting the application of Article 5⁴⁷ and Article 17⁴⁸ of the Protocol, and the achievement of the CBD Aichi Target 2).

Several **cross-cutting issues**, such as:

- enhancement of the biological and landscape diversity conservation outside the protected area territory (corresponding with Article 15⁴⁹ of the Protocol)
- prevention of introduction of invasive alien species threatening ecosystems, habitats or species, their control or eradication (corresponding with Article 13⁵⁰ of the Protocol)
- integration of Carpathian protected areas into broader landscapes (CBD Aichi Target 11)
- consultation, harmonization and coordination of measures in border areas (corresponding with Article 16⁵¹ of the Protocol)

have duly been incorporated into the strategic objectives.

⁴⁶ UNEP/CBD/SBSTTA/15/13 “As sustainability can only be achieved at an appropriate spatial and temporal context, the landscape level is arguably the most important spatial scale to improve and assess the sustainable management of agricultural and forest ecosystems.” <https://www.cbd.int/doc/meetings/sbstta/sbstta-15/official/sbstta-15-13-en.pdf>

⁴⁷ Protocol on conservation and sustainable use of biological and landscape diversity, Article 5 Integration of the objectives of conservation and sustainable use of biological and landscape diversity of the Carpathians into sectoral policies

⁴⁸ Protocol on conservation and sustainable use of biological and landscape diversity, Article 17 Development and implementation of management plans

⁴⁹ Protocol on conservation and sustainable use of biological and landscape diversity, Article 15 Enhancing conservation and sustainable management in the areas outside of protected areas

⁵⁰ Protocol on conservation and sustainable use of biological and landscape diversity, Article 13 Prevention of the introduction of invasive alien species and/or genetically modified organisms threatening ecosystems, habitats or species, their control or eradication

⁵¹ Protocol on conservation and sustainable use of biological and landscape diversity, Article 16 Consultation, harmonisation and coordination of measures undertaken in border areas



The integration of Carpathian protected areas into broader landscapes shall be enhanced in line with the CBD Programme of Work on Protected Areas⁵², not only by applying the ecosystem approach and taking into account ecological connectivity issues (under SO4), but also by recommending relevant measures for inclusion in the local and regional planning documents (under all first four SOs).

This Strategy perceives the scientific research and exchange of information (Article 19 of the Protocol), monitoring activities, and the development and maintenance of information systems (Article 18) not as the stand-alone objectives, but as tools necessary for the achievement of the above main substantive priorities, as well as for the assessment of the effectiveness of locally implemented strategies and action plans. Thus, research, monitoring, and database maintenance related activities have also been incorporated into the strategic objectives.

However, some activities related to the involvement of the local communities and their local and regional authorities (Article 6⁵³ of the Protocol), as well as information and raising the ecological awareness (Article 24 of the Protocol) are not dealt with in this Strategy, as such issues are adequately covered by the Centralparks Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians.

The Centralparks Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians recommends e.g. the measures and activities aimed at:

- activating the inhabitants for the purposes of identification, preservation and restoration of the locally specific natural and landscape values
- raising the appreciation and awareness of the importance and values of the above resources, and on threats for their preservation, among the local residents and tourists
- creating cooperation platforms for various local stakeholder groups.

Furthermore, the Centralparks Strategy for local sustainable tourism development includes a separate operational objective (OO 1.3) concerning prevention and mitigation measures as possible responses to the tourism impact on the fragile mountain ecosystems of the Carpathians.

Consequently, the other Centralparks Strategy (for local sustainable tourism development), under its operational objective 1.3, indicates numerous recommended measures and activities which can prevent or mitigate possible adverse effects of tourism and related infrastructure developments on the biological and landscape diversity.

This is why recommendations related to the management of the tourism development and regulating the visitor traffic are almost absent in this Strategy, in order to avoid thematic overlaps between these two documents.

⁵² CBD Programme of Work on Protected Areas UNEP/CBD/COP/DEC/VII/28 <https://www.cbd.int/doc/decisions/cop-07/cop-07-dec-28-en.pdf>

⁵³ Protocol on conservation and sustainable use of biological and landscape diversity, Article 6 Participation of regional and local authorities, and other stakeholders



The implementation of these two Centralparks strategies should additionally be facilitated by the application of the Centralparks Guidelines on communication between protected areas and local communities, in order to raise the ecological awareness of tourists coming to the Carpathian protected areas and surrounding areas, and enhance the sense of the common ownership and responsibility for protected areas among the local residents.

Due to the above, it is recommended that the local stakeholders enhance the implementation of this Strategy by applying the two other Centralparks mutually reinforcing tools: the Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians, and the Guidelines on communication between protected areas and local communities in the Carpathians.



4. Recommended measures and activities

This chapter contains measures and activities recommended for the preservation, protection, and sustainable use of the biological and landscape diversity of the Carpathian region, grouped under the general headings of strategic objectives (SOs) and operational objectives (OOs).

These measures and activities are numbered, which shall help navigate through the contents. However, it should be the local stakeholders as the ‘end-users’ and ‘end beneficiaries’ of this Strategy who shall select and prioritize measures and activities most relevant and feasible for them, in consultation between all partners involved in the development or revision (and later the implementation) of the local strategies and plans for the preservation, protection, and sustainable use of the biological and landscape diversity, accordingly to the local priorities, most urgent needs and management challenges, as well as the financial and operational capacities of the local partners implementing the Strategy, and the specific local socio-economic context.

Some recommended measures and activities (marked 📍), while the remaining other measures and activities can be applied regardless the legal protective status of the area, thus also in the external buffer zone of protected areas, and the larger surrounding region. Moreover, some recommended measures and activities (marked 🌐) can successfully be implemented also at the transboundary scale, in cooperation between the local and regional authorities, and other stakeholders from the two or more bordering countries, in line with Articles 7 and 16 of the Protocol on conservation and sustainable use of biological and landscape diversity, where the Parties committed to encourage cooperation among the competent institutions and organisations, and between regional and local authorities at the international level⁵⁴, as well as to consult, harmonise and coordinate protective measures undertaken in border areas (in particular in transboundary protected areas)⁵⁵.

Last, but not least, additional recommendations concerning prioritizing (marked ☉) are sometimes accompanying Strategy operational objectives (OOs) or particular recommended measures, following the pragmatic approach and principles of the systematic conservation planning concept, which acknowledges the common constraints related to the limited funding availability and other operational capacities, confronted with the competing multitude of statutory goals and urgent management challenges. Systematic conservation planning emphasizes the need for the efficient achievement of conservation objectives at the least possible financial investment and staff involvement, by e.g. identifying and prioritizing key biodiversity elements, identifying priority threats, pressures, challenges and areas; and selecting priority intervention areas accordingly, thus enhancing the feasibility of achieving the most urgent and important conservation objectives at the limited operational costs.

⁵⁴ Protocol on conservation and sustainable use of biological and landscape diversity (Bucharest, 2008), Article 7 International cooperation 1. The Parties shall encourage active cooperation among the competent institutions and organisations at the international level with regard to the conservation, restoration and sustainable use of biological and landscape diversity of the Carpathians. 2. The Parties shall facilitate the cooperation between regional and local authorities in the Carpathians at the international level, and seek solutions to shared problems at the most suitable level.

⁵⁵ Protocol on conservation and sustainable use of biological and landscape diversity, Article 16 Consultation, harmonisation and coordination of measures undertaken in border areas 1. Each Party shall harmonise and coordinate measures, undertaken in its border area in the Carpathians aimed at achieving objectives listed under Article 1 paragraphs 2 and 3, with the neighbouring Party, in particular in transboundary protected areas. 2. The Parties shall cooperate within existing transboundary protected areas in the Carpathians and harmonise the management objectives and measures applied and, if need be, encourage the expansion of existing transboundary protected areas or creation of new transboundary protected areas in the Carpathians. 3. In a case where the natural habitat of the endangered species is located on both sides of the state border between the Parties, such concerned Parties shall cooperate on ensuring the conservation and, as may be necessary, recovery of those species and their natural habitats.



Strategic Objective 1 (SO1)

Preservation, protection, recovery and sustainable use of plant, animal and fungi species in the Carpathian region

Operational Objective 1.1 (OO 1.1) Assessment of the regional and local conservation status of plant, animal and fungi species⁵⁶

Measure 1.1.1. Collection of data on plant, animal and fungi species

Collecting and compiling available data on wild species of plants, animals or fungi placed under species protection by applicable national legislation, other locally or regionally threatened, rare or endemic species, species of Community interest and other species included in the Carpathian Red List of Species (once adopted under the Convention), including species used for economic purposes; as well as the local Carpathian breeds of livestock and cultivated plant varieties (i.e. breeds of livestock, poultry and other domestic animals or cultivated plant varieties that are either native to, or developed in the Carpathian region as a distinctive breeding or cultivated variety, adapted to specific environmental conditions as a result of the long-term influence of local natural factors and agricultural practices of the past generations of the local communities living in the Carpathian region); and invasive alien species.

In particular, data should be collected on the distribution of the habitats of species, refuges, native and invasive alien plant or fungus occurrence localities, animal breeding sites, and other sites of regular presence of wild species, and the course of ecological corridors appropriate for these species (i.e. areas of migration corridors, and routes of movement of individuals of these species); on the species population structure and size, and changes in the populations of these species; on measures undertaken up to date with the objective to ensure the long-term preservation, protection, recovery, and sustainable use of these species, on measures undertaken up to date for prevention of introduction of invasive alien species and their control or eradication, and on the effectiveness of such measures.

⊙ *Additional recommendation on prioritizing: in the first place, the data obtained as a result of nature inventories, environmental monitoring and scientific research conducted with the use of public funds within the territory remaining within the geographical scope of application of the Protocol on the protection and sustainable use of biological and landscape diversity shall be collected, including the results of the standardized monitoring of the Carpathian large carnivore and herbivore species.*

⁵⁶ Convention on Biological Diversity, Article 7. Identification and Monitoring. Each Contracting Party shall, as far as possible and as appropriate, in particular for the purposes of Articles 8 to 10: (a) Identify components of biological diversity important for its conservation and sustainable use having regard to the indicative list of categories set down in Annex I; (b) Monitor, through sampling and other techniques, the components of biological diversity identified pursuant to subparagraph (a) above, paying particular attention to those requiring urgent conservation measures and those which offer the greatest potential for sustainable use; (c) Identify processes and categories of activities which have or are likely to have significant adverse impacts on the conservation and sustainable use of biological diversity, and monitor their effects through sampling and other techniques; and (d) Maintain and organize, by any mechanism data, derived from identification and monitoring activities pursuant to subparagraphs (a), (b) and (c) above.



Measure 1.1.2. Development and maintenance of a database on plant, animal and fungi species

Designing a regional and/or local digital archiving system and database, enabling the integration, harmonization, retrieval, updating and analysis of data on plant, animal or fungi species (including invasive alien species); development of the database, entering the data collected under Measure 1.1.1., continuous updating of gathered data on regular basis, and improvement of tools serving for data analysis, maintenance and updating of records, lists, etc.

Measure 1.1.3. Assessment of the conservation status of plant, animal and fungi species

Analysis of available data for the purposes of assessing the regional or local conservation status of plant, animal or fungi species specified in Measure 1.1.1., including, to the extent necessary to plan the protection, identification of the recent changes and trends in the local and regional populations of these species, including migratory species, and possible reasons for these changes, forecast of future population trends, assessment of the effectiveness of measures undertaken up to date with the objective to ensure the long-term preservation, protection, recovery and sustainable use of these species.

Measure 1.1.4. Identification and assessment of threats to the preservation of plant, animal and fungi species

Analysis of available data for the identification and assessment of the existing and potential internal and external threats⁵⁷, which could affect the regional or local conservation status of plant, animal or fungi species specified in Measure 1.1.1., including the assessment of the impact of taking the wild species of plants, animals or fungi on the long-term preservation and viability of the local and regional populations of these species; taking into account their population number and dynamics, natural range, size and integrity of their natural habitat, mainstays and migration routes, and the legal conservation status of such areas.

⁵⁷ For example threats indicated in the List of pressures and threats available at the reference portal for reporting under Article 17 of the Habitats Directive http://cdr.eionet.europa.eu/help/habitats_art17, and/or Direct Threats Classification (v2.0) by Open Standards for the practice of Conservation, introduced at <https://cmp-openstandards.org/using-cs/tools/threats-classification-v2-0/> and further described in detail https://docs.google.com/spreadsheets/d/1rJSNz1LG_KOqoudVFglodx47HZ9LR-M6iVlRYMvn9Wk/edit#gid=310830663, by following Step 2 indicated in the IUCN World Heritage Outlook - Conservation Outlook Assessments - Guidelines for their application to natural World Heritage Sites Version 3.1. (26.03.2020) available at <https://worldheritageoutlook.iucn.org/sites/default/files/files/publications/Guidelines%20-%20IUCN%20Conservation%20Outlook%20Assessments%20Version%203.1.pdf>



Operational Objective 1.2 (OO 1.2) Planning the measures and activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species

Measure 1.2.1. Identification of the target priority species

Identifying, on the basis of results of Measures 1.1.3. and 1.1.4., the regional or local target priority species (from among the plant, animal or fungi species specified in Measure 1.1.1.), the preservation or recovery of which urgently requires undertaking special protective measures at the local or regional scale.

Measure 1.2.2. Planning measures and activities for the preservation, protection, or recovery of species

Determining the proposed methods and special protective measures that shall be undertaken at the local or regional scale for the preservation, protection or recovery of plant, animal or fungi species, including, if stipulated by applicable national legislation, planning the establishment of protective zones (e.g. non-intervention zones) safekeeping the habitats of species, refuges, occurrence localities, breeding sites, and other sites of regular presence of wild species; the development of local or regional strategies, programmes and plans aimed at species preservation, protection or recovery, appropriate management plans specifically designed for particular species or sites; the incorporation of relevant provisions into the other local or regional planning documents, or the application of the other appropriate statutory, administrative or contractual measures, including other effective area based conservation measures.

Recommended measures and activities include, but should not be limited to:

- maintaining or restoring the natural (soil, water and light) conditions appropriate for the plant or fungi species
- maintaining or restoring the species composition appropriate for the habitat or occurrence localities of the species, including regulating the populations of the other, non-protected species that can affect the conditions of a given habitat or occurrence localities for species subject to protection
- preventing or controlling plant succession undesirable from the point of view of protection of a given species, e.g. by grazing, mowing, cutting down trees and shrubs in a manner appropriate to the species subject to protection, and removal of obtained biomass
- restoring existing and establishing new tree and/or shrub vegetation patches and belts within fields and meadows, contour buffer strips, edge of field buffers, riparian vegetation buffers, swampy areas buffers
- increasing the number and size of beneficial microhabitats (e.g. leaving dying or dead wood and trees with hollows, creating small water reservoirs for amphibians)
- in-situ conservation, restoration or restitution of wild species populations
- preservation of wild species populations through ex-situ conservation
- preventing, controlling or eradicating invasive alien species
- effectively preventing and addressing wildlife and forest crime.



© *Additional recommendation on prioritizing: in the first place, special protective measures shall be planned for the target priority species identified in result of Measure 1.2.1., and other species which protection and/or recovery could contribute to the protection and/or recovery of such target priority species.*

Measure 1.2.3. Assessment of the need for the extension or designation of protected areas for the preservation, protection, or recovery of the target priority species

Assessing the needs for strengthening the preservation, protection or recovery of the target priority species by territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the applicable national legislation; by analysing the spatial data in order to determine the extent to which the habitats of the target priority species, their refuges, occurrence localities, breeding sites, and other sites of their regular presence (in particular the protective zones harbouring such areas and sites, referred to in Measure 1.2.2.) overlap with the existing protected areas or their external buffer zones, and deciding which form of spatial nature protection would be appropriate and sufficient in a given area of species occurrence to ensure effective preservation, protection, or recovery of these species; that is, assessing which of the following solutions is recommended in a given case:

- assigning the area concerned, located within an existing protected area, a more suitable protective status (e.g. designating the species protective zone located inside a protected landscape area as a nature reserve, or a non-intervention zone)
- designating the area concerned, not yet legally protected, as a new protected area
- undertaking other appropriate statutory, administrative or contractual measures, for the establishment of protective zones for the target priority species
- applying other effective area based conservation measures, e.g. by amending the local and/or regional planning documents (e.g. local spatial development plans, forestry plans) in order to prevent or mitigate threats to the preservation or restoration of habitats of target priority species, their refuges, occurrence localities, breeding sites, and other sites of their regular presence.

Measure 1.2.4. Planning activities for the sustainable use of wild species

Determining the acceptable methods and limits for taking the wild species of plants, animals and fungi used for economic and other purposes in a way which will not disturb or damage their populations and habitats, and implement the principles of adaptive harvest management⁵⁸, taking into account the results of Measure 1.1.4., and the specific local condition of the area concerned.

⁵⁸ Adaptive harvest management is the periodic process of setting regulations based on a system of population and habitat monitoring, harvest-level recording, data analysis and defining regulatory options (Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA), Annex 3, Action Plan)
https://www.unep-aewa.org/sites/default/files/basic_page_documents/agreement_text_english_final.pdf



Measure 1.2.5. Planning activities for the sustainable use of the local Carpathian breeds of livestock and cultivated plant varieties

Developing proposals for actions to be undertaken at the local or regional scale, with the objective to maintain and strengthen the interest of local communities and individual farmers in the preservation and sustainable use of the local Carpathian breeds of livestock and cultivated plant varieties, in particular the development of educational and training programmes targeted at farmers in the Carpathian region, economically attractive and socially sound incentive programs, including the relevant agri-environmental schemes where appropriate, and activities which are in correspondence with the Protocol on Sustainable Agriculture and Rural Development of the Carpathian Convention.

Measure 1.2.6. Planning transboundary cooperation activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species 🌱

Identifying common priorities, in consultation between the local and regional authorities, and other stakeholders from the two or more bordering countries, and the joint preparation of proposals for common transboundary programs and projects aimed at the long-term preservation, protection, recovery, and sustainable use of plant, animal and fungi species (e.g. bilateral or multilateral species conservation, recovery or reintroduction action plans, plans for prevention of introduction of invasive alien species, their control or eradication; combating poaching, illegal logging and illegal taking and killing of species), in particular when the natural habitats of selected species are located across the state borders between the Parties concerned, to be implemented in border areas, in particular in transboundary protected areas.



Operational Objective 1.3 (OO 1.3) Implementation of measures and activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species

© *Additional recommendation on prioritizing: Measures from 1.3.1. up to and including 1.3.8. should be undertaken in the first instance to protect and recover the target priority species (identified under Measure 1.2.1), following the provisions of the local or regional strategies, programmes and plans, or management plans for particular species or sites, adopted or updated in result of the implementation of Measure 1.2.2.*

Measure 1.3.1. Protecting habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species against external threats by promoting the principles of sustainable resource management

Promoting at the local or regional scale the principles of sustainable agriculture, forestry, water management, fishing, hunting, tourism and investment activities; indicating the recommended methods and techniques of works, enabling the preservation of habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species (e.g. by preserving the specific features of the habitat by maintaining the diverse species composition of forest habitats, implementing medium and long rotation forestry practices, maintaining some part of the overmatured tree stands, leaving decaying wood, extensive grazing of mountain pastures and meadows, or maintaining certain succession stages, including short-term / ephemeral habitats), allowing for the adjustment of methods, intervals and periods of conducting activities related to the economic use of the areas of species occurrence (e.g. agrotechnical, forestry, fishing, hunting, construction or hydrotechnical works) to the protective requirements of these species, in order to limit the potential negative impact of works related to economic activities on the habitats of these species.

Measure 1.3.2. Protecting habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species against external threats by limiting their penetration by humans ↓

Eliminating or limiting human penetration of habitats and refuges of species, refuges, occurrence localities, and breeding and wintering sites by introducing permanent (in a non-intervention zone) or temporary restrictions in making these areas accessible for economic purposes, hunting, angling or tourist visitation⁵⁹, e.g. excluding or limiting access to specific areas, modification of the layout of tourist routes and trails, logging roads and forestry roads; and the effective enforcement of these restrictions.

⁵⁹ Please see also measures recommended under OO 1.3. (Managing tourism impact on the fragile mountain ecosystems of the Carpathians) of the Centralparks Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians.



Measure 1.3.3. Protecting habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species against external threats by designating protective zones

Designation by the local or regional authorities, if stipulated by applicable national legislation, protective zones (including non-intervention zones) safekeeping the habitats of species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of wild species (planned under Measure 1.2.2), which may result in, and justify the need for imposing restrictions on the possibility and scope of economic and other use of the area within such zones, or on methods and techniques of works related to the conduct of economic activities, permitted in such zones.

Measure 1.3.4. Protecting habitats of target priority species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of these species against external threats by the extension or designation of protected areas 🔄

Enhancing the effective preservation, protection or recovery of the target priority species by the territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the applicable national legislation, in order to establish or increase the protective status of areas encompassing the habitats of target priority species, refuges, occurrence localities, breeding sites, wintering and other sites of regular presence of these species; basing on the assessment conducted under Measure 1.2.3. and following necessary agreements with the owners and/or administrators of the areas concerned.

Measure 1.3.5. Active protection of habitats of wild species

Implementation of the local or regional scale active protective measures in the habitats or occurrence localities of wild species, aimed at the maintenance or restoration of the desired favourable conditions for individual species, planned under Measure 1.2.2., following necessary agreements with the owners and/or administrators of the areas concerned.

Measure 1.3.6. Supporting in-situ conservation of wild species populations

Implementation of various protective measures in-situ, in particular interventions aimed at improving the conditions for the existence, feeding, roosting and reproduction of wild species in their natural habitats or occurrence localities (e.g. by building waterholes or artificial breeding places, implementing medium and long rotation forestry practices, selective logging instead of clearcutting, maintaining some part of the overmatured tree stands, enhancing the spontaneous natural regeneration of the forest habitats, maintaining and/or restoration of roosting, hibernation and hiding places, shelters), and, should significant external threats to the species habitat or occurrence locality emerge, that are difficult to prevent, eliminate or mitigate, also the transfer of specimens of species subject to protection from their endangered habitats or occurrence localities to the carefully selected new ones.



Measure 1.3.7. In-situ restoration or restitution of wild species populations

Supplying the local or regional populations of wild species in their natural habitats or occurrence localities by introducing individuals acquired from the other nearby natural habitats or occurrence localities rich in a given species, in order to restore or reconstitute the local population of a given species.

Measure 1.3.8. Supporting the preservation of wild species populations through ex-situ conservation 🌱

Implementation of activities aimed at securing a representative part of the local or regional population of a given species by ex-situ breeding or cultivation of this species (e.g. by establishing genetic repositories, seed banks, breeding centres and nurseries), in order to introduce the selected individuals to the natural environment, or reintroduce the species to its previously native but new habitat or locality.

Measure 1.3.9. Promoting the sustainable use of wild species

Implementation of activities aimed at improving the effectiveness of systems and mechanisms regulating and controlling the take of wild species of plants, animals and fungi locally used for economic and other legal purposes from their natural environment; other activities (planned under Measure 1.2.4.) aimed at the promotion of sustainable uses of these species, and of acceptable methods and limits for acquiring the wild species used for economic purposes in a way which will not disturb or damage their populations and habitats (taking into account the results of Measure 1.1.4. and the specific local conditions of the area concerned); and ex-situ breeding or cultivation of this species, in order to reduce the pressure on their acquisition from their natural habitats or occurrence localities.

Measure 1.3.10. Supporting the sustainable use of the local Carpathian breeds of livestock and cultivated plant varieties

Implementation of the local or regional scale:

- informative, educational and promotional activities (including training for breeders and farmers) for the preservation, dissemination of breeding or cultivation, and sustainable use of the local Carpathian breeds of livestock and cultivated plant varieties;
- activities supporting the maintenance and strengthening the interest of local communities and individual farmers in the continuation of agricultural practices using the local Carpathian breeds of livestock and cultivated plant varieties, in particular by implementing economically attractive and socially sound incentive programs, including the relevant agri-environmental schemes where appropriate;
- measures to prevent population decline or the extinction of the local Carpathian livestock breeds and cultivated plant varieties, by applying special in-situ and ex-situ conservation measures for those animal breeds and plant varieties that are neither widespread outside the Carpathian region, nor commonly used in the modern large-scale agriculture, but considered potentially endangered due to the abandonment of traditional farming practices in mountain areas. Such specific ex situ conservation measures may, in particular, include the establishment of genetic repositories, seed banks, breeding centres and nurseries;
- initiatives supporting and facilitating scientific research for the preservation, promotion of breeding or cultivation, and sustainable use of the Carpathian local breeds of livestock and cultivated plant varieties.



Measure 1.3.11. Consultation, harmonisation and coordination of measures and activities for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species undertaken in border areas ★

Consultation, harmonisation and coordination of implementation of protective measures and other activities undertaken in border areas (in particular in transboundary protected areas) for the preservation, protection, recovery, and sustainable use of plant, animal and fungi species, between the local and regional authorities, and other stakeholders from two or more bordering countries; as well as the implementation of the common transboundary programs and projects aimed at the long-term preservation, protection, recovery, and sustainable use of plant, animal and fungi species (e.g. bilateral or multilateral species conservation, recovery or reintroduction action plans, plans for prevention of introduction of invasive alien species, their control or eradication, combating poaching, illegal logging and illegal taking and killing of species), in particular when the natural habitats of selected species are located across the state borders between the Parties concerned.



Strategic Objective 2 (SO2) Preservation, protection, restoration and sustainable use of natural and semi-natural habitats in the Carpathian region

Operational Objective 2.1 (OO 2.1) Assessment of the regional and local conservation status of natural and semi-natural habitats

Measure 2.1.1. Collection of data on natural and semi-natural habitats

Collecting and compiling available data on natural and semi-natural natural habitats, in particular the locally or regionally rare or threatened natural habitats, habitat types of Community interest and other habitats included in the Carpathian Red List of Habitats (once adopted under the Convention).

In particular, data should be collected on the distribution of natural habitats and changes in their range, size and shape of the areas occupied by particular habitats, the state of preservation of the structure and functions of these habitats, on the local practices related to economic uses of these habitats and the impact of their use on the state of preservation of the structure and functions of habitats, as well as on existing and potential threats that may cause the loss of habitats and spread of invasive alien species; on possible methods for the management and restoration of these habitats, measures undertaken up to date with the objective to ensure the long-term preservation, management, protection, restoration, and sustainable use of these habitats, and on the effectiveness of such measures.

© *Additional recommendation on prioritizing: in the first place, the data obtained as a result of nature inventories, environmental monitoring and scientific research conducted with the use of public funds within the territory remaining within the geographical scope of application of the Protocol on the protection and sustainable use of biological and landscape diversity shall be collected.*

Measure 2.1.2. Development and maintenance of a database on natural and semi-natural habitats

Designing a regional and/or local digital archiving system and database, enabling the integration, harmonization, retrieval, updating and analysis of data on natural and semi-natural habitats; development of the database, entering the data collected under Measure 2.1.1., continuous updating of gathered data on regular basis, and improvement of tools serving for data analysis, maintenance and updating of records, lists, etc.

Measure 2.1.3. Assessment of the conservation status of natural and semi-natural habitats

Analysis of available data for the purposes of assessing the local or regional conservation status of natural and semi-natural habitats specified under Measure 2.1.1., including, to the extent necessary to plan the protection, identification of the recent changes and trends in the local and regional resources of these habitats, and possible reasons for these changes, forecast of future trends, assessment of the effectiveness of measures undertaken up to date with the objective to ensure the long-term preservation, protection, management, restoration and sustainable use of these habitats.



Measure 2.1.4. Identification and assessment of threats to the preservation of natural and semi-natural habitats

Analysis of available data for the identification and assessment of the existing and potential internal and external threats⁶⁰, which could affect the local or regional conservation status of habitats specified under Measure 2.1.1., including, where appropriate, the assessment of the impacts of their economic use on the state of preservation of the structure and functions of these habitats.

Operational Objective 2.2 (OO 2.2) Planning the measures and activities for the preservation, protection, management, restoration, and sustainable use of natural and semi-natural habitats

⊙ *Additional recommendation on prioritizing: in the first place, special protective measures shall be planned for the target priority habitats identified in result of Measure 2.2.1. Therefore, OO 2.2 and OO 2.3 concern solely the target priority habitats.*

Measure 2.2.1. Identification of the target priority habitats

Identifying, on the basis of results of Measures 2.1.3. and 2.1.4., the regional or local target priority habitats (from among habitats specified in Measure 2.1.1.), the preservation, protection or restoration of which urgently requires undertaking special protective and management measures at the local or regional scale.

⊙ *Additional recommendation on prioritizing: restoration of degraded habitats should in the first place be planned in areas perceived conducive to achieving the other objectives of this Strategy, in particular in areas of key importance for improving the continuity and connectivity of natural and semi-natural habitats, and for improving and ensuring connectivity between existing protected areas; thus based also on the results of the assessment of continuity and connectivity of natural and semi-natural habitats carried out under Measure 4.1.3.*

Measure 2.2.2. Planning activities for the sustainable use of the target priority habitats

Developing proposals for actions to be undertaken at the local or regional scale, with the objective to promote, where appropriate, the sustainable use of the target priority habitats, in particular through the continuation of sustainable agricultural and land-use practices traditional for the Carpathian region, including the development of promotional, educational and training programmes targeted at farmers and private forest owners, strengthening of the interest of local communities and individual farmers in the sustainable use of habitats, prevention of introduction of invasive alien species, their control and eradication, as well as other economically attractive and socially sound incentive programs, including the relevant agri-environmental schemes where appropriate.

⁶⁰ For example threats indicated in the List of pressures and threats available at the reference portal for reporting under Article 17 of the Habitats Directive http://cdr.eionet.europa.eu/help/habitats_art17, and/or Direct Threats Classification (v2.0) by Open Standards for the practice of Conservation, introduced at <https://cmp-openstandards.org/using-cs/tools/threats-classification-v2-0/> and further described in detail https://docs.google.com/spreadsheets/d/1rJSNz1LG_KOqoudVFglodx47HZ9LR-M6iVIRYMvn9Wk/edit#gid=310830663, by following Step 2 indicated in the IUCN World Heritage Outlook - Conservation Outlook Assessments - Guidelines for their application to natural World Heritage Sites Version 3.1. (26.03.2020) available at <https://worldheritageoutlook.iucn.org/sites/default/files/files/publications/Guidelines%20-%20IUCN%20Conservation%20Outlook%20Assessments%20Version%203.1.pdf>



Measure 2.2.3. Planning measures and activities for the protection, management or restoration of the target priority habitats

Determining the proposed methods and special protective measures that shall be undertaken at the local or regional scale for the protection, management or restoration of habitats, including, if appropriate, the development of local or regional strategies, programmes and plans aimed at habitats protection, management or restoration, appropriate management plans specifically designed for particular habitats or sites; the incorporation of relevant provisions into the other local or regional planning documents, or the application of the other appropriate statutory, administrative or contractual measures, including other effective area based conservation measures.

Recommended measures and activities include, but should not be limited to:

- removing the causes, and mitigating adverse effects of habitat disturbance
- improving or restoring, and maintaining the appropriate environmental conditions, by regulating water conditions, including the restoration of the natural course and flow of water courses, prevention of undesirable excessive water runoff from the habitat occurrence area (through increasing the retention of the area, e.g. by building water gates, blocking or eliminating drainage ditches) as well as the prevention of undesirable flooding or swamping of the habitat occurrence area, or the inflow of waters containing undesirable substances
- improving or restoring, and maintaining appropriate habitat conditions by regulating soil conditions
- improving or restoring, and maintaining appropriate habitat conditions by regulating light conditions (e.g. by inhibiting undesirable spontaneous forest succession in areas of non-forest target priority habitats occurrence, by removing trees, shrubs, brushwood or undergrowth, also by reducing the artificial light pollution)
- improving or restoring, and maintaining the appropriate species composition (e.g. by regulating the plant, animal and fungi populations structure and size, introduction of native species, control or removal of expansive and/or invasive species that could threaten native species, enrichment of the species composition of forest renewals, reconstruction of monocultures, protection of forest cultivations or seedling plots against excessive damage caused by herbivores)
- including relevant provisions into the forest management plans, e.g. on banning or limiting the clear-cuts, maintaining part of the overmatured tree stands, preserving the natural forest edge and shape gentle ecotone transition zones between forest and non-forest ecosystems (with a loose top layer of tree crowns and a dense layer of shrubs)
- improving or restoring, and maintaining the appropriate condition of a habitat by the continuation or restoration of its favourable economic use techniques and methods (e.g. traditional extensive pastoral or pasture-mowing management)
- combating forest and environmental crime.

Decision on the selection of methods and special protective measures shall duly take into account the results of Measure 2.1.3. (assessments of the conservation status, and of the effectiveness of measures undertaken up to date) and Measure 2.1.4. (assessment of threats to the preservation of habitats). Proposed methods should duly take into account not only the available funding and operational capacities of the local stakeholders, but also the advantages and disadvantages



of the passive conservatory versus the active protective approach, confronted with the current demographic and migration trends, such as ageing of the European society and the outmigration of young rural generations to cities, resulting in the depopulation of rural areas (in particular affecting mountain regions) and the degradation of several semi-natural habitats, following the abandonment of traditional agricultural and land-use practices in the Carpathian region and spread of invasive alien species.

Measure 2.2.4. Assessment of the need for the extension or designation of protected areas for the preservation, protection, management or restoration of the target priority habitats

Assessing the needs for strengthening the preservation, protection or restoration of the target priority habitats by territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the applicable national legislation; by analysing the spatial data in order to determine the extent to which the areas encompassing the target priority habitats overlap with the existing protected areas or their external buffer zones, and deciding (taking into account the results of Measures 2.1.3. and 2.1.4) which form of spatial nature protection would be appropriate and sufficient in a given area to ensure the preservation, effective protection or restoration of these habitats; that is, assessing which of the following solutions is recommended in a given case:

- assigning the area concerned, located within an existing protected area, a more suitable protective status (e.g. including areas encompassing the target priority habitats into the strictly protected PA non-intervention core zone)
- designating the area concerned, not yet legally protected, as a new protected area
- undertaking other appropriate statutory, administrative or contractual measures, for the preservation, effective protection, management or restoration of the target priority habitats
- applying other effective area based conservation measures, e.g. by amending the local and/or regional planning documents (e.g. local spatial development plans, forestry plans) in order to prevent or mitigate threats to the preservation or restoration of the target priority habitats.

Measure 2.2.5. Planning transboundary cooperation activities for the preservation, protection, management, restoration, and sustainable use of the target priority habitats ♻️

Identifying common priorities, in consultation between the local and regional authorities, and other stakeholders from the two or more bordering countries, and the joint preparation of proposals for common transboundary programs and projects aimed at the long-term preservation, protection, management, restoration, and sustainable use of the target priority habitats, in particular when such habitats stretch across the state borders between the Parties concerned, to be implemented in border areas, in particular in transboundary protected areas.



Operational Objective 2.3 (OO 2.3) Implementation of measures and activities for the preservation, protection, management, restoration, and sustainable use of the target priority habitats

Measure 2.3.1. Protecting the target priority habitats against external threats by promoting the sustainable use of the target priority habitats

Promoting, at the local or regional scale, the sustainable use of the target priority habitats, in particular through the continuation of sustainable agricultural and land-use practices traditional for the Carpathian region, by the implementation of the promotional, educational and training programmes developed under Measure 2.2.2.

Measure 2.3.2. Protecting the target priority habitats against external threats by promoting the principles of sustainable resource management

Promoting at the local or regional scale the principles of sustainable agriculture, forestry, water management, fishing, hunting, tourism and investment activities; indicating the recommended methods and techniques of works, enabling the preservation of the managed target priority habitats, allowing for the adjustment of methods, intervals and periods of conducting activities related to the management and economic use of these habitats (e.g. agrotechnical, forestry, fishing, construction or hydrotechnical works, control or eradication of invasive alien species) to the protective requirements of these habitats, in order to limit the potential negative impact of works related to economic activities on these habitats.

Measure 2.3.3. Protecting the target priority habitats against external threats by modifying the economic and other use of the area

Modifying the economic and other use of the area of the target priority habitat occurrence in order to protect this habitat (e.g. in agriculture, through replacing mechanical mowing by the combination of selective hand cutting and grazing, or in silviculture, by including in the forest management plan, where considered expedient, the requirement to maintain some part of the overmatured tree stands, implement medium and long rotation forestry practices, or apply partial gradual felling with long renewal period).

Measure 2.3.4. Protecting the target priority habitats against external threats by limiting the extraction of natural resources

Imposing restrictions or limitations on the extraction of natural resources in the area of the target priority habitat occurrence in order to protect this habitat (e.g. limiting the volume of allowed timber harvesting, limiting the number of forest plots allowed for commercial logging, limiting or abandoning the extraction of peat, or of the aggregate and compact rock raw materials, preventing and addressing illegal logging and other environmental crime, limiting of hunting, angling and accompanying activities such as feeding of game species, building of hunting and angling facilities, etc.).



Measure 2.3.5. Protecting the target priority habitats against external threats by limiting the adverse effects of human penetration

Eliminating or limiting the adverse effects of human penetration of the target priority habitats (e.g. preventing trampling of vegetation, disturbance of the subsoil structure and soil erosion on tourist routes and trails through trail surface hardening, raising the walkway surface above the ground level by the installation of footbridges, platforms, elevated meshes or trusses), or by introducing permanent (in non-intervention zones) or periodic restrictions in making these areas accessible for economic purposes or tourist visitation⁶¹, e.g. excluding or limiting access to specific areas, modification of the layout of tourist routes and trails, logging roads and forestry roads; and the effective enforcement of these restrictions.

Measure 2.3.6. Active protection, management or restoration of the target priority habitats

Implementation of the local or regional scale active protective measures in the area of the target priority habitat occurrence, aimed at the maintenance, improvement, or restoration of its desired favourable conservation status; by implementing local or regional strategies, programmes and plans aimed at habitats protection or restoration, appropriate management plans specifically designed for particular habitats or sites developed under Measure 2.2.2., following necessary agreements with the owners and/or administrators of the areas concerned.

Measure 2.3.7. Protecting the target priority habitats against external threats by the extension or designation of protected areas 🌱

Enhancing the effective preservation, protection or restoration of the target priority habitats by the territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the applicable national legislation, in order to establish or increase the protective status of areas encompassing the target priority habitats; basing on the assessment conducted under Measure 2.2.4. and following necessary agreements with the owners and/or administrators of the areas concerned.

Measure 2.3.8. Consultation, harmonisation and coordination of measures and activities for the preservation, protection, management, restoration, and sustainable use of target priority habitats undertaken in border areas 🌱

Consultation, harmonisation and coordination of implementation of protective measures and other activities undertaken in border areas (in particular in transboundary protected areas) for the preservation, protection, management, restoration, and sustainable use of target priority habitats, between the local and regional authorities, and other stakeholders from two or more bordering countries, including, but not limited to, the common implementation of bilateral or multilateral habitat conservation action plans, in particular when the target priority habitat is located across the state borders between the Parties concerned; as well as the implementation of the common transboundary programs and projects aimed at the long-term preservation, protection, management, restoration, and sustainable use of the target priority habitats, in particular when such habitats stretch across the state borders between the Parties concerned.

⁶¹ Please see also measures recommended under OO 1.3. (Managing tourism impact on the fragile mountain ecosystems of the Carpathians) of the Centralparks Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians.



Strategic Objective 3 (SO3) Preservation, protection, restoration, revitalization, and sustainable use of landscapes in the Carpathian region

Operational Objective 3.1 (OO 3.1) Assessment of the conservation status of landscapes

Measure 3.1.1. Collection of data on landscapes

Collecting and compiling available data on landscapes, in particular those of significant natural, historical and cultural importance (which could be essential for building and strengthening the local identity, as well as perceived as important assets for the local sustainable tourism development, strengthening the tourist attractiveness, competitive advantages, and the unique selling proposition of particular community, municipality or region as the potential tourism destination)⁶², including spatial data on the distribution and delimitation of particular landscape types and units, landscape components, characteristic features, and ecological relationships of landscapes, local traditional architectural forms of buildings, other objects of significant natural, historical and cultural importance within the areas of occurrence of these landscapes; traditional land-use, forestry and agricultural practices related to different economic uses of these landscapes, and the impact of their use on the state of preservation of the landscapes; the results of previously conducted valorisation and assessment of the aesthetic values and conservation status of landscapes, on threats to the preservation of these landscapes, on possible methods for the restoration and revitalization of these landscapes, measures undertaken up to date with the objective to ensure the long-term preservation, protection, restoration and revitalization, and sustainable use of these landscapes, and on the effectiveness of such measures.

© *Additional recommendation on prioritizing: in the first place, the data obtained as a result of landscape audits and assessments, and other relevant scientific research conducted with the use of public funds within the territory remaining within the geographical scope of application of the Protocol on the protection and sustainable use of biological and landscape diversity shall be collected.*

Measure 3.1.2. Development and maintenance of a database on landscapes

Designing a regional and/or local digital archiving system and database, enabling the integration, harmonization, retrieval, updating and analysis of data on landscapes (including GIS spatial data analysis, and visualization of landscapes); development of the database, entering the data collected under Measure 3.1.1., continuous updating of gathered data on regular basis, and improvement of tools serving for data analysis, maintenance and updating of records, lists, etc., for the purposes of landscape conservation status assessment, landscape protection and management planning.

⁶² Please see also the following operational objectives of the Centralparks Strategy for local sustainable tourism development based on natural and cultural heritage of the Carpathians: OO 1.1. (Well maintained and protected natural, landscape and cultural heritage assets for sustainable tourism development), OO 2.1 (Territorial brand of the tourism destination built on local resources), and OO 3.1. (Local identity as the social integration and activation factor).



Measure 3.1.3. Assessment of the conservation status of landscapes

Analysis of available data for the purposes of assessing the local or regional conservation status of landscapes, including, to the extent necessary to plan the protection, identification of recent changes and trends in landscapes, and possible reasons for these changes, forecast of future trends, delimitation of areas where landscapes are best preserved, areas where landscapes are disturbed or degraded, and areas where landscapes are subject to spontaneous transformations resulting from the abandonment of the former traditional land-use practices (e.g. forest succession on post-agricultural land, and historically used mountain meadows and pastures), assessment of the effectiveness of measures undertaken up to date with the objective to ensure the long-term preservation, protection, restoration, revitalization, and sustainable use of landscapes.

Measure 3.1.4. Identification and assessment of threats to the preservation of landscapes

Analysis of available data for the identification and assessment of the existing and potential internal and external threats, which could affect the local or regional conservation status of landscapes, including, where appropriate, the assessment of the impacts of the economic activities on the state of preservation of landscapes, basing on the results of previously conducted landscape audits, landscape valorisation studies, and other assessments of the aesthetic values and conservation status of landscapes, if available.

© *Additional recommendation on prioritizing: in the first place, threats to the preservation of landscapes within the boundaries of protected areas, other areas previously designated for the preservation and protection of landscapes, as well as areas inside and directly adjacent to the UNESCO World Heritage properties or sites inscribed on the Tentative Lists, and areas of the UNESCO-MaB Biosphere Reserves or areas proposed for such nomination should be analysed. Particular attention shall be paid to the need for the preservation, protection, sustainable use, and, if necessary, also the restoration and revitalization of the Carpathian cultural landscapes, that is traditional landscape structures, including landscape intentionally created and maintained by men, organically evolved, associative cultural landscapes, which are specific for the Carpathian region or its particular sub-regions, in particular those containing objects of the traditional architecture of the Carpathians, or resulting from the application of the traditional land-use patterns and practices in the Carpathians.*



Operational Objective 3.2 (OO 3.2) Planning the measures and activities for the preservation, protection, restoration, revitalization, and sustainable use of landscapes

Measure 3.2.1. Identification of the target intervention areas for the preservation, protection, restoration, revitalization, and sustainable use of landscapes

Identifying, on the basis of results of Measures 3.1.3. and 3.1.4., the regional or local target intervention areas for the preservation, protection, restoration, revitalization, and sustainable use of landscapes which urgently require undertaking special protective measures at the local or regional scale.

⊙ *Additional recommendation on prioritizing: in the first place, target intervention areas should be delimited for the landscapes of significant natural, historical, cultural, and spiritual importance, which could be essential for building and strengthening the local identity, perceived as important assets for the local sustainable tourism development, strengthening the tourist attractiveness, competitive advantages, and the unique selling proposition of particular community, municipality or region as the potential tourism destination, as well as landscapes within the boundaries of protected areas, other areas previously designated for the preservation and protection of landscapes, as well as areas inside and directly adjacent to the UNESCO World Heritage properties or sites inscribed on the Tentative Lists, and areas of the UNESCO-MaB Biosphere Reserves or areas proposed for such nomination. Particular attention shall be paid to the need for the preservation, protection, sustainable use, and, if necessary, also the restoration and revitalization of the Carpathian cultural landscapes, that is traditional landscape structures, including landscape intentionally created and maintained by men, organically evolved, associative cultural landscapes, which are specific for the Carpathian region or its particular sub-regions, in particular those containing objects of the traditional architecture of the Carpathians, or resulting from the application of the traditional land-use patterns and practices in the Carpathians.*

Measure 3.2.2. Planning activities for the sustainable use of landscapes in the target intervention areas

Developing proposals for actions to be undertaken at the local or regional scale, with the objective to promote the sustainable use of the target intervention areas for the preservation or restoration of landscapes (in particular by the continuation of sustainable agricultural and land-use practices traditional for the Carpathian region, and traditional methods of landscape management enhancing the preservation and protection of biological and landscape diversity), including the development of promotional, educational and training programmes targeted at farmers and private forest owners, strengthening the interest of local communities in the sustainable use and proper management of landscapes; as well as other economically attractive and socially sound incentive programs, including the relevant agri-environmental schemes where appropriate.

Measure 3.2.3. Planning the protection of landscapes in the target intervention areas against external threats by the modifications of the economic use of the area

Developing proposals for actions to be undertaken at the local or regional scale, with the objective to integrate, where appropriate, the requirements of landscape preservation, protection, restoration and revitalization of landscapes in target intervention areas into the local economic practice.



Recommended measures and activities include, but should not be limited to:

- including relevant provisions into the forest management plans, e.g. on banning or limiting the clear-cuts along communication routes, tourist routes and trails, water courses and water reservoirs; on avoiding straight logging lines; requirements to leave single visually attractive trees in the landscape, to maintain part of the overmatured tree stands, to preserve the natural forest edge and shape gentle ecotone transition zones between forest and non-forest ecosystems (with a loose top layer of tree crowns and a dense layer of shrubs)
- maintenance and restoration of tree and/or shrub vegetation patches and belts within fields and meadows, contour buffer strips, edge of field buffers, and riparian vegetation buffers in the agricultural areas
- limiting or banning the extraction of peat, or of the aggregate and compact rock raw materials
- combating illegal logging and environmental crime connected with natural resources.

Measure 3.2.4. Planning the protection of landscapes in the target intervention areas by integrating the landscape preservation and protection requirements into the spatial planning at the local and regional level

Determining in the local and regional spatial planning documents the locally specific conditions for the development of the target intervention areas aimed at the protection of landscapes.

Decision on recommended methods and measures should take into account the recommendations of the previously conducted landscape audits, landscape valorisation studies, and other assessments of the aesthetic values and conservation status of landscapes, if available.

Recommended measures and activities include, but should not be limited to:

- limiting the size of areas allowed for residential and recreational developments, or excluding particular areas from development
- regulating and limiting the permissibility of new infrastructural investments (e.g. technical, communication, tourist, recreational infrastructure development) in particular target intervention areas
- defining the parameters and indicators of shaping the settlement areas and buildings to preserve or restore landscape values of the target intervention area.

Measure 3.2.5. Planning measures and activities for the protection, restoration and revitalization of landscapes in the target intervention areas

Determining the proposed methods and measures that shall be undertaken at the local or regional scale for the protection, restoration and revitalization of landscapes in the target intervention areas identified under Measure 3.2.1., including, if appropriate, the development of local or regional strategies, programmes and plans aimed at the protection, restoration and revitalization of landscapes, appropriate management plans specifically designed for particular sites or areas; the incorporation of relevant provisions into the other local or regional planning documents, or the application of the other appropriate statutory, administrative or contractual measures, including other effective area based conservation measures.



Decision on recommended methods and measures should take into account the recommendations of the previously conducted landscape audits, landscape valorisation studies, and other assessments of the aesthetic values and conservation status of landscapes, if available.

Recommended measures and activities include, but should not be limited to:

- removing the causes, and mitigating adverse effects of landscape disturbance
- maintenance, restoration and revitalization of the characteristic features of landscapes through the continuation of traditional land-use, agricultural, and forestry practices that shaped these features in the past
- recreation, reconstruction, or revitalization of currently missing or degraded elements of the historic landscape composition, including the restoration of historic greenery and trees
- promotion of traditional settlement and architectural patterns, characteristic for the given area, preferably to be constructed with the use of natural, locally acquired construction materials, and traditional construction skills; or the adaptation of existing and newly built contemporary buildings and facilities to the traditional style of construction and regional architecture patterns
- introducing elements consistent with the characteristic features of landscapes, the history of the given area and the tradition of its sustainable use by humans
- restoration of the historical layout of different landscape elements, including also the use of natural components for enhancing the visual perception of historical cultural landscapes, e.g. by visualizing the historical spatial arrangement of either partially abandoned, or completely destroyed human settlement unit, and the spatial division of currently abandoned agricultural land historically used by their inhabitants, through: reconstructing and marking in the landscape the routing of the former village roads (by planting or recreating the characteristic lines of roadside vegetation, preferably composed of native species); restoring the former tree and /or shrub vegetation belts composed of native species within fields and meadows, and their contour buffer strips; indicating and visualizing the historical location of churches and churchyards in the landscape (by planting or recreating the characteristic rings of trees surrounding the church, of the proper species composition), and of the stand-alone civil and war cemeteries (by planting patches of vegetation traditional for such sites), visualizing the historical layout of home gardens and orchards (by planting non-invasive herbs, flowers, and other traditionally used plants, bushes and fruit trees); by clearing bushes screening the ruins and remnants of destroyed buildings, walls and fortifications where necessary
- merging the landscape composition, recomposing, or making the composition of the landscape layout easily readable for the common visual perception
- arranging the landscapes in desirable way by regulating at the local or regional level the allowed and/or recommended methods of visual advertising, the design of small architecture objects, fences and walls surrounding the buildings, built-up areas or open areas, and the allowed and/or recommended construction materials;
- arranging the landscapes in desirable way by removing or screening different anthropogenic disharmonious elements that disturb or degrade the landscape aesthetic values, or are undesirable in the landscape (e.g. removing large-format advertising banners and roadside billboards, screening smaller elements of technical infrastructure like e.g. transformer stations with trees), removing the technical infrastructure and/or vegetation disturbing the foregrounds of the landscape exhibition, viewing axes, or limiting viewpoints

and panoramas, replacing aerial power lines by underground cable power lines where deemed necessary for the restoration and enhancement of the landscape aesthetic values (which also benefits biodiversity protection, by preventing collisions of birds with electric power lines and poles)

- setting detailed standards for the spatial, land-use and land development planning at the local or regional level, in order to prevent the deterioration of landscapes, and the visual qualities of the public space
- delimitation of open areas proposed for afforestation, as well as open areas to be maintained as such (where the afforestation is not recommended, and the forest succession should be inhibited)
- prevention, mitigation, or eradication of spontaneous forest and shrub vegetation succession on abandoned post-agricultural land, and historically used mountain meadows and pastures
- reclamation of e.g. abandoned mining sites, with the use of native species of trees, shrubs and plants
- renaturalisation of watercourses and adjacent riparian vegetation buffers
- other locally-specific measures, recommended for particular areas, sites or objects, aimed at shaping and active protection of landscapes, and, if necessary, restoring and revitalizing significant or characteristic landscape features
- proper interpretation of landscapes to the local inhabitants and tourists, presenting the landscapes as the result of the local natural, cultural and spiritual heritage (especially the cultural landscapes of the Carpathians - traditional landscape structures, including landscape intentionally created and maintained by men, organically evolved, associative cultural landscapes, which are specific for the Carpathian region or its particular sub-regions, in particular those resulting from the application of the traditional land-use patterns and practices in the Carpathians, and/or containing urban and rural architectural arrangements, groups of buildings and architectural objects constructed with the use of traditional skills and traditional materials, following traditional architectural design patterns typical for particular subregions of the Carpathians).

Measure 3.2.6. Assessment of the need for the extension or designation of protected areas for the preservation, protection, restoration and revitalization of landscapes in the target intervention areas

Assessing the needs for strengthening the preservation, protection, restoration and revitalization of landscapes in the target intervention areas by territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the applicable national legislation; by analysing the spatial data in order to determine the extent to which the areas encompassing the target intervention areas overlap with the existing protected areas or their external buffer zones, and deciding (taking into account the results of Measures 3.1.3. and 3.1.4) which form of spatial landscape protection would be appropriate and sufficient in a given area to ensure the preservation, effective protection, restoration and revitalization of landscapes in target intervention areas; that is, assessing which of the following solutions is recommended in a given case:

- assigning the target intervention area concerned, located within an existing protected area of the comparatively low conservation regime (e.g. protected landscape area, landscape park) a more suitable protective status (by designating the target intervention area as e.g. landscape reserve of a higher conservation regime, if stipulated by the applicable national legislation)

- designating the target intervention area concerned, not yet legally protected, as a new protected landscape area
- undertaking other appropriate statutory, administrative or contractual measures, for the preservation, effective protection, or restoration of the landscape features in the target intervention area
- applying other effective area based conservation measures, e.g. by amending the local and/or regional planning documents (e.g. local spatial development plans, forestry plans) in order to prevent or mitigate threats to the preservation or restoration of the landscape in the target intervention area.

Measure 3.2.7. Planning transboundary cooperation activities for the preservation, protection, restoration, revitalization, and sustainable use of landscapes 🔄

Identifying common priorities, in consultation between the local and regional authorities, and other stakeholders from the two or more bordering countries, and the joint preparation of proposals for common transboundary programs and projects aimed at the long-term preservation, protection, restoration, revitalization, and sustainable use of landscapes, in particular when the target intervention areas selected in one country is adjacent to the state border, or when the high conservation value natural, cultural, or historical landscapes stretch across the state borders between the Parties concerned, to be implemented in border areas, in particular in transboundary protected areas.



Operational Objective 3.3 (OO 3.3) Implementation of measures and activities for the preservation, protection, restoration, revitalization, and sustainable use of landscapes

Measure 3.3.1. Protecting landscapes in the target intervention areas by promoting the principles of sustainable economy and resource management

Promoting, at the local or regional scale, the economic practices compatible with the preservation, restoration and revitalization of landscapes in the target intervention area (in particular by the continuation of sustainable agricultural and land-use practices traditional for the Carpathian region), integrating such requirements into the local and regional strategies and planning documents concerning agriculture, forestry, water management, extractive industries, and tourism development; as well as implementing the promotional, educational and training programmes developed under Measure 3.2.2.

Measure 3.3.2. Protecting landscapes in the target intervention areas by modifying the economic use of the area

Modifying the economic use of the target intervention areas in order to protect the landscape, by implementing measures and activities planned under Measure 3.2.3.

Measure 3.3.3. Protecting landscapes in the target intervention areas by the enforcement of the landscape preservation and protection requirements integrated into the spatial planning at the local and regional level

Enforcement of the provisions concerning the locally specific conditions for the development of the target intervention areas aimed at the protection of landscapes, determined and integrated into the local and regional spatial planning documents under Measure 3.2.4.

Measure 3.3.4. Protecting, restoring, and revitalizing landscapes in the target intervention areas

Implementing measures and activities for the protection, restoration and revitalization of landscapes in the target intervention areas planned under Measure 3.2.5., aimed at shaping and active protection of landscapes, and, if necessary, restoring and revitalizing significant or characteristic landscape features, following necessary agreements with the owners and/or administrators of the areas concerned.

The implementation of this measure can be enhanced by the local or regional awareness raising and motivational activities, emphasizing the social and economic benefits of effective landscape values protection for the land owners, investors and local residents (e.g. enhancing the quality of life of the local residents, maintaining or increasing the price of land due to maintaining or restoring the high attractiveness of the area for tourism and recreation, as well as for tourist, residential and recreational housing investments, or the inflow of permanent or seasonal settlers



to the community); or by introducing a local or regional incentive and award schemes for municipalities, communities or individual owners implementing measures and activities for the protection and restoration of landscapes, promoting and enhancing the social and ownership forms of care over landscapes in the target intervention areas.

Measure 3.3.5. Protecting landscapes in the target intervention areas by the extension or designation of protected areas for the preservation, protection, or restoration of landscapes

Enhancing the effective preservation, protection, restoration and revitalization of landscapes in the target intervention areas by the territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the applicable national legislation, in order to establish or increase the protective status of the target intervention areas; basing on the assessment conducted under Measure 3.2.6., following necessary agreements with the owners and/or administrators of the areas concerned.

Measure 3.3.6. Consultation, harmonisation and coordination of measures and activities for the preservation, protection, restoration or revitalization, and sustainable use of landscapes undertaken in border areas 🌍

Consultation, harmonisation and coordination of implementation of measures and activities undertaken in border areas (in particular in transboundary protected areas) for the preservation, protection, sustainable use and, if necessary, restoration or revitalization of landscapes, between the local and regional authorities, and other stakeholders from two or more bordering countries; as well as the implementation of the common transboundary programs and projects aimed at the long-term preservation, protection, restoration, revitalization, and sustainable use of landscapes, in particular when the target intervention areas are adjacent to the state border, or when the high conservation value natural, cultural, or historical landscapes stretch across the state borders between the Parties concerned.



Strategic Objective 4 (SO4) Ensuring continuity and connectivity of natural and semi-natural habitats, landscapes, strengthening the ecological network in the Carpathian region

Operational Objective 4.1 (OO 4.1) Assessment of the local and regional state of ecological connectivity

Measure 4.1.1. Consolidation of data for the assessment of the local and regional state of ecological connectivity

Consolidation of data allowing the assessment of the local and regional state of ecological connectivity⁶³, including the spatial data from the relevant local or regional land use and land development planning documents, as well as data either previously available, or gathered in the course of implementation of the local or regional strategy or action plan for enhancing biodiversity and landscape conservation outside and inside protected areas

- concerning the distribution and the course of ecological corridors appropriate for wild species of plants, animals or fungi placed under species protection by applicable national legislation, other locally or regionally threatened, rare or endemic species, species of Community interest and other species included in the Carpathian Red List of Species (once adopted under the Convention), collected under Measure 1.1.1., and stored in the regional and/or local databases on plant, animal or fungi species, developed under Measure 1.1.2.
- concerning the distribution of natural and semi-natural habitats, size and shape of the areas occupied by the locally or regionally rare or threatened natural habitats, habitat types of Community interest and other habitats included in the Carpathian Red List of Habitats (once adopted under the Convention), collected under Measure 2.1.1., and stored in the regional and/or local databases on natural and semi-natural habitats, developed under Measure 2.1.2.
- concerning landscapes, in particular the spatial data on the distribution and delimitation of particular landscape types and units collected under Measure 3.1.1. and stored in the regional and/or local databases on landscapes developed under Measure 3.1.2., as well as on the distribution and delimitation of the regional or local target intervention areas for the preservation, protection, restoration, and sustainable use of landscapes, identified under Measure 3.2.1.
- concerning protected areas, either existing or planned for the designation by the local or regional authorities under Measure 1.2.3., Measure 2.2.4., and Measure 3.2.5.

Measure 4.1.2. Development and maintenance of a database on the local and regional ecological connectivity

Designing a regional and/or local digital archiving system and database, enabling the integration, harmonization, retrieval, updating and analysis of the data consolidated under Measure 4.1.1.; development of the database, entering the data collected under Measure 4.1.1., continuous updating of gathered data on regular basis, and improvement of tools serving for data analysis, maintenance and updating of records, lists, etc.

⁶³ Recommended further reading: IUCN Best Practice Protected Area Guidelines Series No. 30 (2020) Guidelines for conserving connectivity through ecological networks and corridors <https://portals.iucn.org/library/node/49061>



Measure 4.1.3. Local and regional ecological gap assessment

Carrying out the local and regional ecological gap assessment, basing on data consolidated under Measure 4.1.1., with the use of the spatial data analysis tools developed under Measure 4.1.2., by undertaking the following steps:

- identifying key species and key habitats (from among those listed under Measure 4.1.1.) and key landscapes of significant natural, historical and cultural importance (mentioned under Measure 3.1.1.) for which the fragmentation is a key issue and which can benefit from improved connectivity
- assessing the degree of fragmentation of habitats of such key species, key habitats, and key landscapes
- identifying the ecological continuity and connectivity spatial gaps, critical zones and hot-spots, and other areas that create barriers and bottlenecks for annual and seasonal species movement or migration
- identifying patches of suitable landscapes and habitats which could serve as the stepping stones for annual and seasonal species movement or migration
- assessing the coverage of the habitats of such key species, key habitats, and key landscapes by the protected areas, either already existing or planned for the designation by the local, regional, or central level authorities
- assessing the spatial continuity and connectivity of areas either already designated as legally protected or planned for the designation by the central level authorities, or by the local or regional authorities under Measure 1.2.3., Measure 2.2.4., and Measure 3.2.5.

The assessment of the continuity and connectivity of the habitats of key species, key natural and semi-natural habitats, and key landscapes should additionally take into account the situations that may occur in border areas (in particular in transboundary protected areas and bordering protected areas of two or more neighbouring Parties to the Protocol), when the state border between the Parties runs through patches of a given habitat or landscape, or when such patches are located in their immediate vicinity on either side of the state border between the Parties.

Measure 4.1.4. Identification and assessment of threats to the preservation of the local and regional ecological connectivity

Analysis of available data for the identification and assessment of the existing and potential internal and external threats, which could affect the state of the local or regional ecological connectivity, or impair the efforts aimed at its restoration and improvement, including, where appropriate, the assessment of the impacts of the current economic activities, as well as planned developments and investments (e.g. the linear technical or transport infrastructure, waterbodies bank reinforcement, hydro-power plants or water reservoir development).



Operational Objective 4.2 (OO 4.2) Planning the preservation, restoration, and enhancement of the local and regional ecological connectivity and ecological network

Measure 4.2.1. Identification of the priority ecological connectivity intervention areas

Identifying, on the basis of results of Measures 4.1.3. and 4.1.4., the local or regional priority ecological connectivity intervention areas, which urgently require undertaking special protective measures at the local or regional scale, in order to restore or enhance the regional or local ecological connectivity, prevent and mitigate the adverse effects of fragmentation within landscapes and habitats.

Measure 4.2.2. Planning the preservation, restoration, and enhancement of the local and regional ecological connectivity by the modifications of the economic use of the area

Developing proposals for actions to be undertaken at the local or regional scale, with the objective to integrate, where appropriate, the requirements of preservation, restoration and enhancement of ecological connectivity in the local or regional priority ecological connectivity intervention areas into the relevant land use/spatial plans and local economic practice.

Measure 4.2.3. Planning measures and activities for the restoration or enhancement of the local and regional ecological connectivity⁶⁴

Determining the proposed methods and special protective measures that shall be undertaken at the local or regional scale for the restoration or enhancement of the ecological connectivity in the local or regional priority ecological connectivity intervention areas identified under Measure 4.2.1., including, if appropriate, the development of local or regional strategies, programmes and plans aimed at the preservation, restoration, or enhancement of the ecological connectivity, appropriate management plans specifically designed for particular sites or areas, the incorporation of relevant provisions into the other local or regional planning documents (especially land use/spatial plans), or the application of the other appropriate statutory, administrative or contractual measures, including other effective area based conservation measures.

Planning measures and activities for the protection, restoration, or enhancement of the local and regional ecological connectivity requires consultations, coordination and cooperation between all relevant stakeholders, in particular the local and regional authorities, as well as the owners and/or administrators of the areas concerned.

⁶⁴ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) Article 3, point 3: "Where they consider it necessary, Member States shall endeavour to improve the ecological coherence of Natura 2000 by maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora, as referred to in Article 10." Article 10: "Member States shall endeavour, where they consider it necessary, in their land-use planning and development policies and, in particular, with a view to improving the ecological coherence of the Natura 2000 network, to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species."

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043>



Recommended measures and activities include, but should not be limited to:

- determination of specific conditions and requirements for the land development in the priority ecological connectivity intervention areas (in particular for the residential and recreational housing development, tourist and recreational infrastructure, and the linear technical infrastructure development), indication of the rules for designing the infrastructure in a way preventing further fragmentation of landscapes and habitats, destruction or partitioning of ecological corridors; or, if deemed necessary, limitation of the admissibility of infrastructure location, or exclusion of the local or regional priority ecological connectivity intervention areas from housing and infrastructure development
- designing and delineation of possible alternative routes for the species migration corridors (i.e. hypothetical species migration routes determined on the basis of assessment of the suitability of individual habitats for particular species migration, environmental features and structural elements of landscapes), linking core areas, using landscape islands and patches as intermediate stepping stones on migration routes, based on the least cost path method
- abandoning or limiting land melioration, the extensive use of meadow habitats and pastures, leaving patches and rows of unused meadow vegetation
- implementation by (or following the agreement with) the owners and/or administrators of the areas directly concerned, of protective measures aimed at preventing the further fragmentation of landscapes and habitats, maintaining, shaping or restoring landscapes and habitats, the environmental features and structural elements of landscapes, and enhancing their permeability as corridors for key species movement and migrations, in particular by: the restoration, shaping and maintenance of different blue and green infrastructure elements (e.g. natural lakes and artificial water retention reservoirs, natural main watercourses, oxbow lakes and flood plains, wetlands, marshes, peat bogs, small mid-field and mid-forest ponds and streams; mid-field tree and/or shrub vegetation groves, patches and belts within fields and meadows, hedges, field and meadow contour buffer strips, balks, edge of field buffers, riparian vegetation buffers, other patches and strips of unused (e.g. ruderal) vegetation excluded from agricultural production; roadside and verge vegetation belts, steep slopes, embankments and rock outcrops
- ensuring the permeability of fauna migration corridors by eliminating or mitigating the adverse impact of barriers (physical, psychological, and behavioural) and bottlenecks for the annual and seasonal species movement or migration (identified under Measure 4.1.3), e.g. by ensuring the enhanced continuity of suitable habitat and landscape rows, by the construction and maintenance of fish passes, construction of collision-free wildlife overpasses and underpasses (tunnels, culverts, ecoducts, green bridges, gantry walkways, tree-top overpasses) under or over the linear transport infrastructure objects (such as highways, expressways, major roads, and railway lines)⁶⁵; taking measures on overhead electric power lines for elimination or reduction of electrocution of birds and their collisions with power lines (such as line marking, insulation of medium voltage poles, shape of consoles, line placement, orientation, configuration, their burying, etc.)⁶⁶, reconstruction or removal of (in particular

⁶⁵ see also TRANSGREEN project. Wildlife and Traffic see in the Carpathians. Guidelines how to minimize the impact of transport infrastructure development on nature in the Carpathian countries. Part of Output 3.2 Planning Toolkit. April 2019.

http://www.interreg-danube.eu/uploads/media/approved_project_output/0001/35/02caaafe3c1c1365f76574e754ddbdc4e1af4a7a.pdf

⁶⁶ e. g.

http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/03%20Meetings%20and%20Events/Working%20Groups/Biodiversity/9th%20meeting/Protecting%20birds%20from%20power%20lines%20focusing%20on%20countries%20of%20Danube-

unused) elements of technical infrastructure constituting a significant obstacle to the movement of animals (both in the area of the currently used wildlife movement and migration corridors, and along possible alternative routes, limits to fencing) or modifying the roadside infrastructure (e.g. drainage runoff water capture reservoirs and tanks, transparent road screening) in order to eliminate direct dangers to migrating animals; monitoring of the above measures.

Measure 4.2.4. Assessment of the need for the extension or designation of protected areas for the preservation, restoration, or enhancement of the local and regional ecological connectivity

Assessing the needs for strengthening the preservation, restoration, or enhancement of the local and regional ecological connectivity in the local or regional priority ecological connectivity intervention areas identified under Measure 4.2.1. by territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the applicable national legislation, taking into account the results of the local and regional ecological gap assessment, carried under Measure 4.1.3. (in particular the assessment of the priority ecological connectivity intervention areas coverage by protected areas, and the assessment of the ecological connectivity and continuity of the local and regional ecological network), and deciding which form of spatial nature protection would be appropriate and sufficient in a given local or regional priority ecological connectivity intervention area to ensure the preservation, restoration, or enhancement of the ecological connectivity; that is assessing which of the following solutions is recommended in a given case:

- assigning the local or regional priority ecological connectivity intervention area concerned, located within an existing protected area of the insufficient protective regime, a more suitable protective status
- designating the local or regional priority ecological connectivity intervention area concerned, not yet legally protected, as a new protected area
- undertaking other appropriate statutory, administrative or contractual measures, for the preservation, effective restoration, or enhancement of the ecological connectivity in such area/s
- applying other effective area based conservation measures, e.g. by amending the local and/or regional planning documents (e.g. local spatial development plans, forestry plans) in order to prevent or mitigate threats to the preservation or restoration of the ecological connectivity.

Measure 4.2.5. Planning transboundary cooperation activities for the preservation, restoration, or enhancement of the local and regional ecological connectivity

Identifying common priorities, in consultation between the local and regional authorities, and other stakeholders from the two or more bordering countries, and the joint preparation of proposals for common programs and projects aimed at the long-term preservation, restoration, or enhancement of the transboundary ecological connectivity, to be implemented in border areas, in particular in transboundary protected areas.



Operational Objective 4.3 (OO 4.3) Implementation of measures and activities for the preservation, restoration, and enhancement of the local and regional ecological connectivity and ecological network

Measure 4.3.1. Preservation, restoration, and enhancement of the local and regional ecological connectivity by the modifications of the economic use of the area

Implementing at the local or regional scale the actions planned under Measure 4.2.2., in order to integrate, where appropriate, the requirements of preservation, restoration and enhancement of ecological connectivity in the local or regional priority ecological connectivity intervention areas into the local relevant land use/spatial plans and economic practice.

Measure 4.3.2. Restoration or enhancement of the local and regional ecological connectivity

Implementing at the local or regional scale the actions planned under Measure 4.2.3., for the restoration or enhancement of the ecological connectivity in the local or regional priority ecological connectivity intervention areas identified under Measure 4.2.1.

Measure 4.3.3. Preservation, restoration, and enhancement of the local and regional ecological connectivity and ecological network by the extension or designation of protected areas ☆

Strengthening the preservation, restoration, or enhancement of the local and regional ecological connectivity in the local or regional priority ecological connectivity intervention areas identified under Measure 4.2.1., and the enhancement of the ecological network by territorial extension of the existing, or the designation of new protected areas by the local or regional authorities, accordingly to the results of the assessment carried out under Measure 4.2.4.

Measure 4.3.4. Supporting the restoration, and enhancement of the local and regional ecological connectivity and ecological network by informative, educational and awareness raising activities

Implementation of the local or regional scale informative, educational and awareness raising activities concerning the environmental, economic and social benefits resulting from the effective preservation, restoration, or enhancement of the ecological connectivity and ecological network, in particular for the agriculture, forestry, and local sustainable tourism development, including the promotion of the traditional local agricultural and land-use practices, which contribute to the preservation and enhancement of the ecological connectivity, and the application, where appropriate, of the relevant agri-environment-climate packages concerning the preservation and restoration of Ecological Focus Areas (EFAs) within agricultural land; as well as the indication of the other available funding sources for the local actions aimed e.g. at the preservation and restoration of the ecological corridors.



Measure 4.3.5. Consultation, harmonization and coordination of measures and activities for the preservation, protection, restoration, and enhancement of ecological connectivity and ecological network 🌱

Consultation, harmonisation and coordination of implementation of protective measures and other activities undertaken in border areas (in particular in transboundary protected areas) for the preservation, protection, restoration, and enhancement of ecological connectivity, between the local and regional authorities, and other stakeholders from two or more bordering countries; as well as the implementation of the common transboundary programs and projects aimed at the long-term preservation, protection, restoration, and enhancement of ecological connectivity, in particular when the local or regional priority ecological connectivity intervention areas are adjacent to the state border, or when the ecological corridors stretch across the state borders between the Parties concerned.



5. “Checklist” for planning the implementation

As “failing to plan is planning to fail”, it is highly recommended that the local stakeholder precede the elaboration of the Local (or Regional) Strategy / Action Plan for enhancing biodiversity and landscape conservation outside and inside protected areas by following the checklist of necessary preparatory activities below:

A. (Awareness and visioning)

- identification of the relevant local and regional stakeholders and the concerned interest groups
- establishing the local (or regional) partnership - a stakeholder working group for the common development and implementation of the local Strategy / Action, with the due involvement of the local, regional and protected area authorities
- involving the national experts on biodiversity and landscape conservation in the elaboration of the Local Strategy / Action Plan
- cooperation and consultations with e.g. the relevant local action groups (LAGs)

B. (Baseline Mapping)

- collecting / acquiring site-specific data and baseline information, analysis of gathered information for proper development and planning the implementation of the Local Strategy / Action Plan
- searching for relevant best practice examples from the other parts of the Carpathian region, to build on and learn the solutions which proved to be effective in similar environments and local socio-economic context

C. (Creative solutions)

- determining the most urgent management challenges related to the preservation and protection of the locally specific natural (species, habitats) and landscape values, and the ecological connectivity of the area
- setting clear conservation objectives including specific targets / goals and indicators for their monitoring (which implies a requirement for data collection for the determination of the current and desired future status)
- searching for partners from the other municipalities in the region, preparation of joint project applications, identifying possible synergies of dispersed local actions, avoiding overlaps and duplication of efforts by different local stakeholders
- identifying available operational human capacities and financial resources (and/or accessible external funding support schemes and programmes) necessary for the elaboration and public consultations of the Local Strategy / Action Plan, as well as for its implementation

D. (Decide on priorities)

- prioritizing needs for interventions, taking due account of the above operational capacities of the local partners
- selecting the most appropriate measures and activities from among those recommended in the Strategy, for the elaboration of the Local Strategy / Action Plan, in consultation between all involved local stakeholders, taking into account their priorities, needs, management planning challenges, legal powers, operational capacities, and the local socio-economic context



E. (Monitor the progress and effectiveness of implementation)

- ensuring continuous access of the local stakeholders to the information on the progress in the development and implementation of the Local Strategy / Action Plan
- monitoring the progress in the development and implementation of the Local Strategy / Action Plan (and later the effectiveness of implemented approaches / applied measures, and evaluating change).

6. Monitoring of effectiveness

The following indicators (more or less similar for all four strategic objectives of this Strategy) could potentially be used for the continuous monitoring of the progress achieved in the implementation of the Local Strategy / Action Plan, for the evaluation of the effectiveness of implemented measures and activities, and for the highly recommended ex-post adjustments and modifications of the resulting Local Strategies / Action Plans:

- the number of species, habitats, or landscape types, the conservation status of which has duly been evaluated
- the number of species (including IAS), habitats, or landscape types entered into the local or regional databases
- the number of the local Carpathian breeds (of livestock, poultry and other domestic animals) and cultivated plant varieties entered into the local or regional databases
- the complexity of data gathered and analysed for the assessment of the current state of the local or regional target intervention areas
- the complexity of data gathered and analysed for the assessment of the current state of the priority local or regional ecological connectivity intervention areas
- the number of local or regional projects implemented for the preservation, active protection, recovery or restoration of species or habitats, and the evaluation of their results and outcomes
- the number of species and habitats which conservation status improved in result of the implementation of the local or regional projects (according to monitoring data)
- the number of the local Carpathian breeds of livestock and cultivated plant varieties which conservation status and/or sustainable use improved in result of the implementation of the local or regional projects
- the number of local or regional projects implemented in the target intervention areas for the preservation, active protection, restoration, and sustainable use of landscapes, and the evaluation of their results and outcomes
- the per cent share of the area of the local and regional target intervention areas covered by the implemented projects in the total area of all determined target intervention areas
- the number of the local or regional target intervention areas, where the state of particular landscapes improved in result of the implementation of the local or regional projects (according to the next landscape audit or valorisation study)
- the number of local or regional projects implemented for the preservation, active protection, restoration or enhancement of the ecological connectivity in the priority ecological connectivity intervention areas, and the evaluation of their results and outcomes



- the per cent share of the area of the local and regional priority ecological connectivity intervention areas covered by the implemented projects in the total area of all determined priority ecological connectivity intervention areas
- the number of joint or harmonized project proposals developed in transnational partnerships involving local and regional authorities, and other local stakeholders from two or more bordering countries
- the number of common transboundary projects implemented by the transnational partnerships involving local and regional authorities, and other local stakeholders from two or more bordering countries, and the evaluation of their results and outcomes
- the number and total size of protected area extensions or designations by the local or regional authorities
- the number of smaller natural objects (e.g. nature monuments) designated as protected by the local or regional authorities
- the number of transboundary protected areas involved in transnational cooperation projects implemented for the achievement of the objectives of this Strategy, involving local and regional authorities, and other local stakeholders from two or more bordering countries.