



REPUBLIC OF POLAND FIRST NATIONAL REPORT
ON THE IMPLEMENTATION OF
THE PROTOCOL ON CONSERVATION AND
SUSTAINABLE USE OF BIOLOGICAL AND
LANDSCAPE DIVERSITY TO THE
FRAMEWORK CONVENTION ON THE PROTECTION
AND SUSTAINABLE DEVELOPMENT OF THE
CARPATHIANS

AUGUST 2017

Introduction & background

This National Report has been elaborated in accordance with the Framework Convention on the Protection and Sustainable Development of the Carpathians¹, its Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity² done in Bucharest on 19 June 2009 which entered into force on 28 April 2010, and its Strategic Action Plan adopted at the Third Meeting of the Conference of the Parties to the Carpathian Convention (COP3)³.

Following Article 28.1 of the Protocol, "*The Parties shall regularly report to the Conference of the Parties on measures related to this Protocol and the results of the measures taken*".

According to Article 29.1 of the same Protocol, "*The Parties shall regularly examine and evaluate the effectiveness of the provisions of this Protocol*".

¹ Hereinafter named "the Convention"

² Hereinafter named "the Protocol"

³ Hereinafter named "the SAP"

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A. GENERAL INFORMATION OF NATIONAL IMPLEMENTATION PROGRESS AND CHALLENGES

A.1 Which are the legal, policy and institutional achievements on national and regional levels since the adoption of the Protocol in your country, aiming at its implementation and the realisation of its objectives?

Please give a short summary of all relevant measures, laws, projects, programs, initiatives, multilateral agreements, etc.

Activities planned to be executed by individual Parties to the Protocol in Poland are mostly typical tasks within the scope of obligations of government administration bodies (e.g. General Directorate for Environmental Protection and territorially competent Regional Directorates for Environmental Protection (RDOŚ)), organisational units (e.g. State Forests, national parks) and scientific-research units subordinate to and supervised by the Minister of the Environment. Many activities defined in the Protocol are implemented on an ongoing basis by these bodies and units under their statutory activity, even without referring to the fact of a special Protocol being in place, which is applied solely to the Carpathian region and after announcement in the Journal of Laws of 27 May 2010 (Journal of Laws 2010 No.90 item 591) became a part of the national legal order and is directly applied within Poland.

Some of the provisions of the Protocol are also implemented via instruments of the Common Agricultural Policy (CAP), which includes the implementation of objectives, which aim to guarantee a balanced impact of agriculture on the natural environment, including on biodiversity preservation e.g. in the area of the Carpathians.

For the purpose of efficient coordination of activities serving for implementation of the Carpathian Convention and the Protocols thereto, a National Steering Committee has been appointed, which includes representatives of ministries, local governments, scientific and research units and NGOs.

An important role in implementing the provisions of the Protocol was performed by "Carpathians Unite – a Mechanism for Consultations and Cooperation for the Implementation of the Carpathian Convention" (Karpaty Łączą – mechanizm konsultacji i współpracy dla wdrażania Konwencji Karpackiej) implemented in the Polish part of the Carpathian Mountains between 2012 and 2016 by a consortium of six organisations coordinated by the UNEP/GRID – Warsaw Centre, co-financed by Switzerland under the Swiss–Polish Cooperation Programme. Under this project, apart from activities designed to support traditional livestock farming and develop a regional sustainable tourism strategy, a "Carpathian Informatorium" was created – an Internet portal, which currently is the main source of information on the Carpathian Convention available in the Polish language, addressed to experts and scientists, local governments and inhabitants of the Carpathian region, as well as tourists and enthusiasts of the Carpathian Mountains, and a number of activities have been undertaken comprising a so-called consultation and cooperation platform, the purpose of which was to ensure public participation in implementing the Convention.

Please give a narrative description of the main features (geography, biological and landscape diversity) of the Carpathian region of your national territory.

In Poland, the Carpathian region comprises ca. 6% of the land area of the country in three regions: Małopolskie, Podkarpackie and Śląskie; it includes mountains, foothills, as well as valleys and mountain basins. In comparison with other regions of the country, the Carpathians are distinguished by a low degree of urbanisation and industrialisation, extensive forests and traditional farming. More than a half of this area is covered by at least one area-related form of nature protection, which is proof of the immense natural wealth of this part of Poland. Natural areas were preserved mainly in regions, which have for a long time been covered by nature protection, or are particularly difficult to access due to their topography, which is crucial for preserving many rare and endangered ecosystems and species, particularly those characterised by an endemic distribution. On the other hand, in more accessible areas, where silviculture and agriculture are maintained, many semi-natural habitats developed, including open habitats with extensive ecotone zones, of significant importance for preserving biological and landscape diversity of the Carpathians. Especially characteristic for this region is the substantial fragmentation of agricultural lands, separated by boundary strips and buffer strips interspersed with ponds or caricions.

Biological and landscape diversity of the Carpathians is mainly conditioned by the topography and geological structure of the area. Natural landscapes belong to three classes: uplands and low mountains (including foothills), highlands and high mountains (divided into a number of types depending on the height above sea level and climate-vegetation zones prevailing therein), as well as valleys and depressions (basins and terrace plains). High mountains comprise only 0.6% of all the area of the Polish part of the Carpathians, highlands - 12.6%, high foothills and low mountains - 14%, medium foothills - 38.3%, and low foothills - 23%. In addition, the bottoms of valleys and basins comprise 11.5% of all the area of the Carpathians.

The Polish Carpathians host bird and vegetation species, which are typical of mountain regions, changing vertically, connected mostly with climate changeability in accordance with the increase of the height above sea level. Vegetation zones have their own characteristic plant cover and distinctive species. Climate and topographical conditions are an important source of biological and landscape diversity in the mountains, alongside human activity and manner of land use. At present, more than one third of the Polish Carpathians' area is covered with forests (ca. 42%), slightly less - arable land (31.5%); meadows cover 11.7%, pastures - 6.1%, orchards and gardens - 0.8% and areas of other types comprise 13%. The dynamic increase of the areas occupied by settlement units and communication routes took place in the last 50 years, at present, they occupy 8.7% of the Polish Carpathians' area.

Agriculture in the Carpathians is a significant element affecting biological and landscape diversity of mountainous areas. The structure of agricultural holdings in this region is dominated by small, multi-directional, individual farms, based on high manual labour. However, thanks to such a form of management, the Carpathians are characterised by a

specific and unique landscape, where forests are intertwined with arable fields, pastures, meadows and alpine tundra above the tree-line, which resulted in the development of valuable semi-natural habitats, such as e.g. the abovementioned extensively used meadows, floristically rich mountain *Nardus* grasslands, tall herb communities or caricions.

One very important element of the Carpathian landscape, are its forests - the Carpathian Mountains are characterised by high afforestation, significantly exceeding the national average. A good biodiversity indicator, is the high diversity of habitat conditions and specific composition of Carpathian forests, which are dominated by beech with smaller numbers of fir and spruce, representing mainly mountain forests (ca. 49%), upland forests (ca. 26%) and mixed deciduous mountain forests (ca. 12%), as well as, to a small extent (in the foothills), mixed deciduous forests (ca. 4%). In total, they occupy ca. 91% of the Carpathian forest area. These are most often multispecies stands, often multi-generational, with a high degree of stability. The specific forest composition in the higher parts of the Carpathians is comprised mainly of: beech (25.3%), fir (25%) and spruce (21.7%), and the lower sections additionally pine (17.0%). Other species such as grey alder and black alder, common oak and sessile oak, silver birch, hornbeam and aspen play a lesser role.

Natural and semi-natural habitats are a refuge for many rare and endangered species, including valuable endemic species. The Polish part of the Carpathians lacks an accurate estimate of the numbers of individual systematic groups, while according to the data of the Central Statistical Office (2015), the numbers of populations of selected protected animal species in the Małopolskie, Podkarpackie and Śląskie regions are: wolf – 583 specimens; lynx – 300; capercaillie – 285; black grouse – 114, chamois – 314; brown bear – 224. The brown bear, Alpine marmot and chamois, as well as several other animal species, e.g. Tatra pine vole, *Rosalia longicorn* and also a large number of plant species such as: Carpathian *tozzia*, *Campanula napuligera* or *Oxytropis carpatica* can be found in Poland, only in the Carpathians. In connection with specific habitat and topographical conditions, the Carpathians (including the Polish Carpathians) are a refuge for many endemic species. The largest number of Carpathian endemic species are mainly plants (e.g. *Cochlearia tatrae*, *Erysimum hungaricum*) and invertebrates (e.g. *Pseudogaurotina excellens*, *Allogamus starmachi*).

The natural value of Polish Carpathians is emphasised by the fact that there are as many as 6 national parks (Babia Góra, Gorce, Tatra, Pieniny, Magura and Bieszczady) of a total area of ca. 81 872 ha and 13 landscape parks of a total area of 448 323 ha belonging to the Carpathian Network of Protected Areas, supplemented with 7 protected landscape areas of a total area of ca. 671 107 ha., which gives a total of almost 70% of the Polish Carpathian area covered with one of the aforementioned forms of nature protection⁴.

⁴ The above description of the Carpathian region has been taken from the "National Action Plan for the Implementation of the Protocol on Protection and Sustainable Use of Biological and Landscape Diversity on the Polish Side" (Krajowy Plan Działań na rzecz wdrażania po stronie polskiej Protokołu o ochronie i zrównoważonym użytkowaniu różnorodności biologicznej i krajobrazowej) (Journal of Laws 2010 No.90, item 591) to the Framework Convention on the Protection and Sustainable Development of the Carpathians (Ramowa Konwencja o ochronie i zrównoważonym

B. ACHIEVEMENTS AND FURTHER IMPLEMENTATION INFORMATION

B.1 Please provide information on measures to implement the Protocol and the results of the measures taken.

Objective 1 – Measures for harmonization of policies and strategies and integration into other sectoral policies:

Pursuant to Articles 4, 5, 6 and 7 of the Protocol

The area of Polish Carpathians is covered by the *Biodiversity Protection and Sustainable Use Programme with an Action Plan for 2015-2020* (Program ochrony i zrównoważonego użytkowania różnorodności biologicznej), adopted by way of the resolution of the Council of Ministers of 6 November 2015. This document is a continuation of the *National Strategy for the Protection and Sustainable Use of Biodiversity and the Action Plan for 2007-2013* (Krajowa strategia ochrony i zrównoważonego użytkowania różnorodności biologicznej oraz Programu działań na lata 2007 – 2013). The objective of the programme is to effectively limit the negative trends leading to loss of biological diversity and to establish sustainable management of natural resources.

Regional directorates for environmental protection undertake actions for the harmonisation of policies and strategies via a strategic environmental impact evaluation system, participating in controlling the investment process, reviewing documents related to spatial development:

1. Reviewing strategy projects, plans and programmes created within individual regions, located within the range of application of the Carpathian Convention, under the strategic environmental impact assessment in terms of requirements connected with environmental protection and forms of nature protection, including Natura 2000 sites, taking account of the principles of sustainable development.
2. Determining the projects of studies of the conditions and spatial development directions for communes, local spatial development plans, region spatial development plans in terms of requirements related to the aforementioned forms of nature protection.
3. Issuing environmental decisions for large projects implemented within the range of application of the Carpathian Convention with respect for the principles of sustainable development, important from the perspective of economic relations between states of the Carpathian Convention.

Region local governments adopted a number of documents of a strategic nature, which account for the need of including objectives of protection and sustainable use of biological diversity into sectoral policies.

State Forests, in accordance with the binding Act on Forests, ensure integration of the Protocol objectives into forestry by executing a permanently sustainable forest management, implemented on the basis of forest management plans, in particular accounting for the following objectives:

- preserving forests and the favourable impact thereof on the climate, air, water, soil, living conditions, human health and natural balance;
- protection of forests, especially forest ecosystems constituting natural fragments of native nature, or forests of particular value, due to preserving natural diversity, forest genetic resources, landscape values and scientific needs;
- protection of soil and areas particularly exposed to damage or destruction and of a special social importance;
- protection of surface, and ground waters, and basin retention;
- production, in accordance with the rational economy principle, of wood, raw materials and secondary forest use products.

In accordance with the above, forest districts implement protection, reconstruction and sustainable biological and landscape use of the Carpathians' diversity. In order to ensure the implementation of policies and strategies, close cooperation is implemented with nature protection authorities (national parks, regional directorates for environmental protection, landscape parks), local governments, nature protection authorities in the Ukraine, Hungary and Slovakia.

National parks operate with the use of protection plans announced by the Minister of the Environment and being strategic documents for park operations. They include guidelines for local development plans designed to, first and foremost, maintain ecological corridors connecting park areas, which encompass Natura 2000 sites, with adjacent nature areas of this kind. In 2014, a protection plan was established for the Pieniny National Park; similar plans for other national parks are under development. In the course of works on protection plan designs for national parks, their contents undergo public consultations, as well as consultations with local governments.

National parks cooperate with local governments. Thanks to this cooperation, they aim to preserve environmental corridors and secure them against investments. Cooperation between protected areas in the Carpathian region is carried out on an ongoing basis. Under the cooperation, emphasis should be given to the cooperation between national parks and regional directorates for environmental protection in the scope of protecting environmental corridors with adjacent protected areas and NGOs.

Example:

The Pieniny National Park cooperates with the Nature Protection League (Liga Ochrony Przyrody), Association in Favour of All Beings (Stowarzyszenie na rzecz wszystkich istot), ProNatura Association and individuals willing to enter into cooperation, for the purpose of protecting environmental corridors.

National parks also cooperate internationally in order to harmonise their policies.

Example:

The Pieniny National Park (PPN) cooperates with the Pieniny National Park (PIENAP) in Slovakia. Based on a multi-annual framework contract, annual agreements are prepared,

which determine areas of cooperation in the scope of joint monitoring of species, protective actions on the Dunajec border river, border investment determinations. Additionally, the PIENAP Director is a member of the PPN Scientific Council and the PPN Director is a member of the PIENAP Scientific Council. This enables a current flow of information concerning key issues relating to the operations of both the border national parks. The annual agreement between the parks enables a fast response to current, most important issues relating thereto.

Between 2012 and 2016, the UNEP/GRID Centre - Warsaw was the leader of a project entitled "Carpathians Unite – a mechanism of consultation and cooperation for the implementation of the Carpathian Convention" (Karpaty Łączą – mechanizm konsultacji i współpracy dla wdrażania Konwencji Karpackiej) co-financed by the Swiss-Polish Cooperation Programme under the Swiss programme of cooperation with new EU Member States. The main objective of the project was the protection and sustainable use of biological and landscape diversity of the Polish part of the Carpathians, therefore a number of actions implemented within the aforementioned project concerned the implementation of the Protocol.

In accordance with Art. 4 of the Protocol, the UNEP/GRID Centre - Warsaw, in cooperation with the National Carpathian Workgroup for Biological and Landscape Diversity created under the implementation of the "Carpathians Unite" project (consisting of experts delegated i.a. by territorially competent Region and Marshal's Offices, Regional Directorates for Environmental Protection, national park and landscape park directorates, State Forests, and the local government organisational unit Upper Silesian Nature Heritage Centre) prepared between 2014 and 2015, a draft of the National Action Plan (NAP) for the implementation of the Protocol in Poland that, after consultations with local governments of 200 Carpathian communes, was submitted to the Minister of the Environment.

The solutions proposed in the NAP and the role of local government units in the preservation of biological and landscape diversity of the Carpathians constituted one of the topics of training for local governments entitled "Joint Management in the Carpathian Area. Code of Good Practice", organised in 2016 under implementation of the project "Carpathians Unite". The purpose of the trainings was to support spatial planning in communes for the benefit of nature and landscape protection and shaping areas of green infrastructure - which is concurrent with recommendations of Art. 5, passage 1 of the Protocol. The participants of the training course included employees of 62 Carpathian communes, perceived as potential active participants and beneficiaries the NAP implementation.

In accordance with Art. 6 of the Protocol, the draft NAP was the object of consultations with local governments of 200 communes, covered by the range of applying the Protocol in Poland. In addition, during the workshop part of the aforementioned training courses for local governments, on the basis of the text of the Protocol and the NAP project, participants developed a number of proposals of local projects (of a commune or supracommune range) for the implementation of the Protocol.

Objective 1 of the present Protocol is also executed through the implementation of the Rural Development Programme for the years 2014-2020 (RDP), one of the priorities of which is sustainable natural resource management and actions in the area of climate, as well as the

sustainable development of rural areas.

The Ministry of Infrastructure and Construction executes the objectives included in Art. 5 and 6 of the Protocol, by implementing the Act of 23 April 2015 on amending certain acts in connection with strengthening the tools of landscape protection (hereinafter: the "*Landscape Act*"). The Landscape Act introduced changes in the Act of 27 March 2003 on spatial planning and development, allowing for the preparation of a landscape audit at the regional level, which gives grounds for identifying and protecting priority landscapes and guidelines for protecting landscapes, by way of the provisions on the Nature Protection Act and the obligation of compliance with the audit of commune and region spatial planning acts, while ensuring cooperation of communes, and social participation. In addition this mechanism, shall be reinforced and maintained in the Urban-Construction Code, which is under development.

Creating strategic sectoral documents accounts for the sustainable development principle, which fosters the inclusion of the objectives of protection and sustainable use of biological and landscape diversity of the Carpathians into sectoral policies

Objective 2 – Measures for conservation, maintenance, restoration and sustainable use of natural and semi-natural habitats:

Pursuant to Articles 8, 10, 16 and 18 of the Protocol

Actions for the protection, maintenance, restoration and sustainable use of natural and semi-natural habitats are implemented mainly under the efforts for preserving *biological diversity*, which is the subject of protection under international conventions ratified by Poland, EU policy and the provisions of national law. In accordance with the provisions of the Act of 16 April 2004 on Nature Protection, the protection of nature, including natural and semi-natural habitats includes the preservation, sustainable use and renewal of natural resources, formations and components. Nature protection objectives are executed i.a. under the catalogue of nature protection forms, designated in accordance with the provisions of the aforementioned Act. The Act on Nature Protection distinguishes the following forms of nature protection: national parks, nature reserves, landscape parks, areas of protected landscape, Natura 2000 sites, nature monuments, documentation stands, ecological sites, natural-landscape units, as well as species protection of plants, animals and fungi. Despite the fact that each of the forms performs a different role in the Polish nature protection system and serves different goals, which is reflected by the different protection regime and scope of limitations of use, they all enable and aim at the protection, restoration and sustainable use of natural and semi-natural habitats.

Operating within the range of the influence of the Carpathian Convention are: 6 national parks, 128 nature reserves, 13 landscape parks, 13 protected landscape areas and 95 Natura 2000 sites. Additionally, the range of the Convention includes 1790 nature monuments, 75 documentation sites, 168 ecological sites and 18 natural-landscape complexes.

The surface of areas protected within the range of the Carpathian Convention is accordingly: for national parks with buffer zones - 168650.98 ha, for nature reserves with buffer zones - 12111.67 ha, for landscape parks - 519045.29 ha, for protected landscape areas - 712214.18 ha, for Natura 2000 sites -939891.05 ha. The surface of other forms of nature protection within the scope of the Convention is: for documentation positions - 122.34 ha, for ecological sites - 4804.97 ha, for natural-landscape complexes - 11703.65 ha, and for the surface of nature monuments -22.68 ha. The total protected area within the scope of the Carpathian Convention is 2 368 566.81 ha (as of 31.05.2017).

In the scope of the Carpathian Convention, the authorities responsible for supervision and protection of designated forms of nature protection include:

- for nature reserves and Natura 2000 sites in individual regions – competent regional directorates for environmental protection;
- for landscape parks in individual regions – competent Marshal's Offices;
- for national parks - individual park directorates and the Ministry of the Environment.

Regional directorates for environmental protection of the Carpathian area take part in protection and restoration of habitats by protecting and managing the Natura 2000 sites, nature reserves and other forms of nature protection within relevant regions, including:

- coordinating the functioning of Natura 2000 sites,
- preparing plans of protective tasks for the Natura 2000 sites,
- preparing protection plans of Natura 2000 sites and nature reserves
- establishing protection tasks for nature reserves requiring active protection
- gradual, annual in certain complexes, performance of active protection treatments in reserves protecting natural and semi-natural habitats, including temporary succession stages or other requiring human interference (mainly extensively used meadows; stone runs, peat bogs, etc.)
- acquiring funds for the above activities
- gathering data concerning natural and semi-natural habitats - task is implemented continuously
- creating and operating a database concerning habitats - task is implemented continuously

Marshal's Offices in the Carpathian Mountains undertake actions for the benefit of sustainable use of meadows and mountain pastures:

In the Małopolskie region in the MRPO for 2014-2020, 10 million EUR were allotted for biodiversity protection. Under this action, the Landscape Parks Complex of the Małopolskie Region prepared a project financed from RPOWM entitled "*Maintaining of Biodiversity of Meadows and Mountain Pastures with the use of pastoral economy*" (Utrzymanie różnorodności biologicznej łąk i pastwisk górskich poprzez prowadzenie gospodarki pasterskiej). The Project will be implemented in 2017–2019. As part of the task, the biodiversity of meadows and mountain pastures shall be maintained by implementing

pastoral economy on an area of ca. 3000 ha. with the participation of ca. 80 shepherds and 15000 animals. It is also planned to construct 3 educational shepherd's huts, where visitors can learn about the idea of active habitat protection, protected species, as well as shepherding culture and tradition. In other locations, single notice boards will be constructed, describing habitats and valuable species present therein. The total cost of the project shall be PLN 7.2 million, 85% of which constitutes reimbursements from EU funds and 15% is the budget of the Małopolskie Region. Additionally, the Marshal's Office is conducting courses for shepherds and junior shepherds, as those who, through their work, act in a responsible manner for maintaining the biodiversity of meadows, alpine tundra areas, pastures; this work also contributes to landscape valuation. Training in this scope has been conducted for 70 people, who are operating within the Małopolska part of the Carpathians. In Małopolska, ca. 70 000 sheep are grazed by ca. 100 shepherds.

The Podkarpacie Marshal's Office implements the programme "*Natural Grazing in Podkarpacie*" - this is a cyclic programme, accepted annually by way of a resolution of the Executive Board of the Podkarpackie Region.

In the Śląskie region, the *Regional Economic Activation And Preservation of the Cultural Heritage of the Beskid Mountains and the Jura Krakowsko-Częstochowska – Owca Plus until the year 2020 Programme* (Wojewódzki Program Aktywizacji Gospodarczej oraz Zachowania Dziedzictwa Kulturowego Beskidów i Jury Krakowsko-Częstochowskiej – Owca Plus do roku 2020) (and in the years 2010-2014) has been implemented. It is an example of a practical implementation of active protection of naturally valuable alpine tundra areas and mountain clearings of the Beskid Mountains by preventing forest succession on the basis of a pastoral economy. The main objective of the programme, which is the preservation, protection and reproduction of biodiversity on the basis of a pastoral economy, is executed by maintaining and improving the condition of valuable natural habitats and species dependent on agricultural use, especially grazing, strengthening the role of the pasture economy in counteracting secondary succession on semi-natural habitats, implementing and supporting active nature protection activities, supporting protection of local breeds and reproducing landscape qualities. The Owca Plus programme is financed in full from the funds of the Local Government budget of the Śląskie Region. The measures are employed by way of announcing open tenders for NGOs.

The main actions within the main objective of the Programme are sheep grazing in alpine tundra areas and clearings of the Beskid Mountains within the Śląskie region, mowing and shrub removal in grazing areas, protecting animal herds (veterinary care, electric fences) and protecting the local mountain sheep breed.

Within the areas covered by Programme implementation, an increase of sheep numbers was observed. In the Beskid Mountains during the first years of the Programme, 2000 sheep were included, currently in 2017 nearly 4000 sheep are grazed. A greater number of sheep allows to conduct grazing on larger areas of alpine tundra and clearings and affects the increase in production of cheese and lamb meat. Environmental monitoring results, conducted by the Upper Silesian Nature Heritage Centre in many cases indicated an improvement, and at least maintaining the condition of natural habitats.

National parks in the Carpathian Mountains conduct statutory activities in the scope of strict protection and active protection of forest and non-forest ecosystems (including mountain pastures, meadows and pastures) and species related thereto.

Examples:

Babia Góra National Park: cooperation within the project "Carpathians Unite" for preserving and reconstructing semi-natural meadow habitats and pastures through traditional sheep grazing on clearings belonging to the BgPN. Reconstruction of the Polana Kaczmarczykowa by removing shrubs and trees, as well as mowing and reconstructing vanishing non-forest habitats

Gorce National Park: active protection of semi-natural meadow habitats through buy-outs, mowings, as well as sheep and cattle grazing mountain clearings, including the following endangered ones: Nardus grass Hieracio-Nardetum, extensively used mountainous fresh meadow Gladiolo-Agrostietum, mountain and lowland alkaline peat bogs classified as caricions, carex meadows and moss complexes

Magura National Park: active protection of ecosystems - maintenance of non-forest habitats through mowing, shrub removal and grazing on the surface of 775 ha

Pieniny National Park:

- protective actions aiming at maintaining semi-natural communities - mowing and biomass removal, shrub removal from meadows, caricions and grasslands; part of the area is used for grazing sheep. The area grows by 3-4 ha annually, where, after purchases from private owners, efforts are reintroduced (in 2016, the efforts encompassed ca. 100 ha.)
- within forests – reconstruction of spruce stands acquiring only ca. 200-300 m³ of wood annually; simultaneously, protection-cultivation activities are conducted in renewed areas, bosks and young generation, aiming at obtaining tree stands matching natural tree stands found in the Pieniny Mountains; in tree stands with a species composition corresponding to the habitat, passive protection is conducted or no protective actions are taken, as to not disturb the course of natural processes (in 2016, efforts in forest ecosystems were conducted on about 35 ha)
- as part of raising knowledge about the consequences of efforts that are undertaken, monitoring of activities is conducted in forest and non-forest ecosystems; in addition, monitoring of natural habitats and species is conducted or ordered, which are the object of protection under the Natura 2000 programme; apart from ongoing monitoring, research works are conducted, concerning the impact of mechanical mowing on green growth of mowed meadows, the impact of fertilising with compost, mulching (i.e. mowing, grass grinding and covering the mown area with fine layer of windrow) and traditional mowing on meadow complexes.

Polish national parks also conduct cross-border cooperation with parks from neighbouring states:

- The Pieniny National Park cooperates with the Pieniny National Park (PIENAP) in Slovakia under a multi-annual framework contract. Under executing the objectives undertaken in the border areas, the Pieniny National Park and PIENAP conduct removal of the invasive Sosnowsky's hogweed, combat angling poaching in the Dunajec River Gorge, as well as take joint efforts to preserve the quality and safety of rafting on the Dunajec river. Additionally, both parks have jointly submitted an application for recognising the Dunajec River Gorge as an object of UNESCO heritage as part of the protection of Mesozoic Carpathian Valleys, where the Slovak side is the leading party of the project.

- *The Pieniny National Park and PIENAP lack a uniform monitoring system, however, employees of both parks perform joint monitoring of selected species as part of their professional activities. Ornithologists conduct joint observations of the peregrine falcon and golden eagle, botanists exchange observations on the prevalence of the *Erysimum hungaricum*. A project of protecting the *Parnassius apollo* is carried out jointly on the basis of assumptions prepared by the Polish side. Also, this information is exchanged annually.*
- *The Tatra National Park entered into relevant contracts with its Slovak partners SL TANAP and Sprava TANAP, in the scope of protection and management of natural resources and scientific and professional cooperation in the scope of fauna research and monitoring.*

The Complex of Natural Landscape Parks of the Śląskie Region conducts the LIFE Project No.LIFE12 NAT/PL/000081, entitled "Protection of Non-Forest Complexes in the Beskid Natural Landscape Parks", Component I: Nature and Biological Diversity (Ochrona zbiorowisk nieleśnych na terenie Beskidzkich Parków Krajobrazowych – komponent I przyroda i różnorodność biologiczna). Objectives of the actions include the preservation of non-forest habitats within the area of Beskid Żywiecki and Beskid Śląski with rare plant localities protected by way of conducting large-scale grazing, as well as mowing alpine tundra areas and mountain clearings, preventing their gradual overgrowing.

Long-term protection, reconstruction and sustainable use of natural and semi-natural habitats in the Carpathians is provided by implementation of sustainable forest management by the State Forests, intended to preserve forest durability. Management is conducted on the basis of forest management plans (PUL) with contents updated every 10 years. In subsequent versions of the PUL, the ranges of existing habitats are verified and updated and new natural habitats are recognised. Additionally, within the Regional Directorate of State Forests (RDLP) in Krosno, a periodical, common inventory-taking is conducted, of plants, animals and other organisms, as well as a parameterisation for the selected biotope characteristics.

Under the conducted forest management, riparian forests and sycamores are under protection, as well as mid-forest water reservoirs and courses preserved in a state close to natural. Other natural habitats (especially acidic and fertile beech forests) are protected in accordance with the provisions of protective task plans for the Natura 2000 sites - at the same time entered into the PUL.

Implemented Projects

- *In 2009-2015, as part of enriching the diversity of forest habitats, a project was completed of Protection and Restitution of yew in RDLP forests in Krakow*
- *For the enrichment of biodiversity of forest habitats, the Regional Directorate of State Forests in Krosno implemented in 2007-2016 a "Programme for the Protection and Restitution of the *Taxus baccata* L.". Within the concerned programme, tasks were implemented in the scope of:*
 - *gene resource evaluation,*
 - *improving conditions for growth and development of the existing yew stands under the*

conducted forest management outside nature reserves,

- introducing 65.2 thousand pcs. of yew saplings in forest cultivations on an area of 22.89 ha.

- Under the priority axis III of the "Infrastructure and Environment" Operational Programme, a project was executed, participants of which included RDLPs in Krosno, Krakow, Katowice. The full name of the programme is: "Counteracting the Effects of Rainfall Outflow in Mountain Areas. Increasing Retention and Maintaining Streams and Related Infrastructure in Good Condition" (Przeciwdziałanie skutkom odpływu wód opadowych na terenach górskich. Zwiększenie retencji i utrzymanie potoków oraz związanej z nimi infrastruktury w dobrym stanie). The project was mainly aimed at slowing down water outflow, increasing retention capacities of mountain basins and re-naturalisation of permanent courses and wetlands, as well as restoring biological continuity therein.
 - RDLP Krosno - under the project, 500 objects were executed, including: reservoirs storing almost 600 000 m³ of water, bridges, culverts, fords, protection of river and stream banks, securing landslides.
 - RDLP Kraków - 107 reservoirs were created, of varying size, capable of retaining more than 113.315 thousand m³ of water. In total, 843 objects were constructed, regulating the water outflow in mountain streams, or ensuring their permeability and biological continuity, such as e.g. culverts, bars, barrages, rapids, sluices, debris flow barriers.
 - RDLP Katowice - in total, 249 objects were constructed under the projects, the objective is to obtain additional retention of 0.5 million m³ of water.

The implementation of objective 2 of the Protocol is contributed to by the Common Agricultural Policy, i.a., by means of the principle of cross-compliance, payments for agricultural practices favourable for the climate and environment (greening) and environmental activities under the Rural Development Programme, for 2014-2020 (RDP), which had 30% of the RDP budget allocated to their implementation.

Under the principle of cross-compliance farmers are bound by specific requirements resulting from the "birds" (2009/147/EC) and "habitat" directives (92/43/EEC). Support for biodiversity in rural areas including the Carpathians is also served by maintaining Ecological Focus Areas (EFA) as part of greening, which is an obligatory element of direct payments since 2015. The obligation of maintaining EFAs applies to farmers with more than 15 ha of arable land and consists of designating therefor, an area corresponding to 5% of arable land. The list of EFAs is broad and includes, fallow land, landscape elements, buffer zones, intercrops and nitrogen binding cultivation.

Additionally, a prohibition is in place in Natura 2000 sites, on converting or ploughing designated permanent environmentally valuable grasslands. Additionally, in order to prevent mass conversion of permanent grasslands (TUZ) into arable land, an obligation exists of maintaining TUZ share in arable land on the scale of the country, which cannot decrease by more than 5% as compared to the reference year 2015.

Under the Rural Development Programme, for 2014-2020 (2nd CAP pillar) there is a number of activities contributing to protection, maintenance, restoration and sustainable use of natural and semi-natural habitats having influence on the biological diversity of rural

areas, including the Carpathian region:

Agri-environment-climate measure under RDP 2014-2020 promotes practices, which contribute to sustainable management of lands and biodiversity protection by: protection of valuable natural habitats and endangered species of birds, protection of endangered genetic resources of cultivated plants and farm animals, as well as protection of landscape diversity. Due to protection, maintenance, reconstruction and sustainable use of natural and semi-natural habitats, the following packages are of utmost importance: Package 4. *Valuable habitats and Endangered Bird Species in the Natura 2000 sites* and package 5. *Valuable Habitats Outside the Natura 2000 sites* are targeted at extensifying management, applying appropriate quantities and deadlines of performed windrows or the intensity of grazing on valuable natural habitats, which has a positive effect on biological diversity. Additionally, in the scope of Package 4., the aforementioned actions also pertain to habitats of endangered species of birds, located in the Natura 2000 sites.

Preserving biodiversity in the area, which includes the Carpathians, is also supported under organic farming RDP 2014-2020, under which sustainable plant and animal production is promoted, as well as the application of biological and mineral substances, which were not technologically processed.

In all packages of the Agri-Environment-Climate Measure and the Organic Farming Measure, the preservation of natural values of agricultural areas is fostered by a prohibition of converting permanent grasslands in an agricultural holding and an obligation to preserve landscape features not used for agriculture, constituting wildlife refuges.

Preservation of biodiversity is also contributed to by the Foresting Action, implemented under RDP 2014-2020. It supports maintaining and strengthening ecological stability of forest areas by combining fragmented forest complexes into dense and continuous landscape structures, so-called ecological corridors constituting migration routes for animals.

Additionally, mountain areas, as areas with specific natural conditions, under which business operations are conducted, receive support from RDP 2014-2020, including under LFA actions. These payments are supposed to make it easier for farmers to continue agricultural land use and in result, affect maintaining the vivacity of rural areas and preserving biodiversity.

Under implementation of the action entitled "Traditional Pastoral Economy in the Carpathians" of the project "*Carpathians Unite*" coordinated by UNEP-GRID, active protection was conducted (mowing, grazing) in 16 selected alpine tundra areas in the Polish part of the Carpathians.

Detailed habitat monitoring was conducted in 13 alpine tundra areas of a total area of 852.59 ha, where habitats are present from Annex I of the Habitats Directive: 6230 (floristically rich mountain *Nardus* grasslands) on a total area of 9.02 ha and 6510 (mountain hay meadows used extensively) on a total area of 324.15 ha.

Actions for sustainable use of semi-natural habitats consisted also of supporting the revival of local traditional sheep grazing in the Polish part of the Carpathians, through practices including: purchasing sheep and transferring them to farmers (730 pcs. of the domestic Polish mountain sheep), direct financial support for grazing (remuneration payments for shepherds for subsequent grazing seasons, subject to adjusting the grazing methods to guidelines prepared for a specific location by environmental experts), as well as repairs and

construction of 65 grazing infrastructure facilities (including 18 shepherd huts).

The "Traditional Pastoral Economy in the Carpathians" Action simultaneously serves:

- the protection and reproduction of landscape diversity in the Polish part of the Carpathians (Art. 1, passage 1 of the Protocol) by preventing forest succession and maintaining open landscapes
- the strengthening, protection and sustainable management in areas outside the protected areas (Art. 15 passage 1 of the Protocol)
- the protection and promotion of traditional patterns of sustainable use of lands, land management practices and local domestic animal breeds (Art. 23 of the Protocol)
- the promotion of sustainable use and proper maintenance of semi-natural habitats (Art. 4 passages 1 and 2 of the Convention)
- the preservation and sustainable management of areas traditionally used for agriculture (Art. 7 passage 1 of the Convention)
- the preservation of traditional architecture, land use methods and local farm animal breeds in the Carpathians (Art. 11 of the Convention).

Actions of the "Pro Carpathia" Association based in Rzeszów, for the protection, maintenance and restoration of sustainable use of natural and semi-natural habitats in the Podkarpackie region were taken under the project "*Initiatives for a Green Podkarpacie*" (Inicjatywy dla Zielonego Podkarpacia), implemented in 2015-2017 – in two editions, co-financed from the funds of the NFEPWM. The initiatives are intended to improve the natural environment and involve the community in actions at a local level for sustainable development. Among the aforementioned initiatives for the environment of the environment, particular mention should be made of:

- recovery of buffer strip trees in the Chłopice and Orły communes,
- revitalisation of a patch of Oakwood in Kalwaria Paławska, and setting out therein, an environmental-didactic trail.
- cultivation of valuable historical tree stands in Radruż, Lubaczów, Krowica Sama and Zgłobień among other locations,
- counteracting the disappearance of pollinators by actions including: construction and assembly of 6 bee logs in the Głogów Małopolski commune,
- planting a European yew (ca. 1400 pcs.) and staphylea bush (ca. 250 pcs.) refuges in Łukowe.

Objective 3 – Measures for conservation and sustainable use of species of flora and fauna, conservation of endangered species including endemic species and large carnivores of the Carpathians:

Pursuant to Articles 11, 12, 16 and 18 of the Protocol

Actions taken by regional directorates for environmental protection in relevant regions:

- gathering data concerning plant, animal and fungi species

- creating and operating a database of plant, animal and fungi species
- evaluation of the conservation status, specification of protective actions for plant and animal species
- issuance of permits for deviating from the prohibitions binding within nature reserves and for deviations from the prohibitions binding in relation to wild species of plants, fungi and animals under protection
- determination of the protection zones of refuges and localities of plants covered by species protection, the refuge protection zones, and locations of reproduction and regular stay of protected animals, protection zones of refuges and localities of fungi covered by species protection - the zone system within the scope of the Carpathian Convention is well developed, updated and supplemented
- improvement of the social reception of the presence of large predators (bear, wolf and lynx) and the European bison in the environment via an efficiently operating system of evaluating damage made by these species in human economy and cooperation with farm owners in securing against damages made thereby
- gradual, in some objects annual, performance of active protection treatments in reserves protecting populations and habitats of plants and animals of protected and endangered species
- species monitoring

Examples:

RDOŚ Rzeszów:

- *cooperation with NGOs in the scope of protection of large predators - agreement with the WWF Poland foundation of 2011 on cooperation during the implementation of the project "Species Protection of the Lynx, Wolf and Bear in Poland", agreement with the WWF Poland Foundation of 6 March 2014 concerning actions related to the protection of large predators (lynx, wolf and bear) in the Podkarpackie region, agreement with the Institute of Nature Conservation in Krakow of 22 May 2014 concerning research and protection of the brown bear.*
- *financial support of the Rehabilitation Centre of Protected Animals in Przemyśl.*

RDOŚ Katowice

- *monitoring of 2 bird species: white-throated dipper (Cinclus cinclus), grey wagtail (Motacilla cinerea)*
- *establishment of 4 protection zones for species of animals requiring zone protection - 2 zones for the western capercaillie (Tetrao urogallus), 2 zones for the wolf (Canis lupus)*
- *within the Śląskie region, protection is conducted of the population of the Campanula serrata and the Crocus scepusiensis under the implementation of the Region Economic Activation Programme and the Preservation of the Cultural Heritage of the Beskid Mountains and the Jura Krakowsko-Częstochowska – Owca Plus until 2020.*

Actions designed for species protection implemented by national parks include active and close protection of plant, animal and fungi species in the entire area of the park, including

close or active protection or nesting and hunting regions of protected and endangered species.

Examples:

Babiogórski National Park

Conducting annually a joint inventory-taking of large predators in the area of Babia Góra with co-participation of Forest Districts Sucha and Nowy Targ and the CHKO Horna Orava (Slovakia).

Exchange of information and consultations between the BgPN and the CHKO Horna Orava regarding the presence of the bear and the capercaillie.

Bieszczady National Park

Proper waste management counteracting the synantropisation of the bear

Gorce National Park

Providing selected mountain clearings – State Treasury land being the property of the GPN, for traditional sheep and cattle grazing on the basis of lease contracts with interested shepherds – planned, regular mowings and shrub removal from mountain clearings aiming to restore or re-create the good condition of meadow habitats and protection of flora and fauna species connected therewith, in particular: priority habitats for the European Community and protected, endangered species being the object of particular attention for GPN

Magura National Park

Creation of water reservoirs optimal for the presence and breeding of amphibians

Mowing meadows to create optimum conditions for the presence of valuable species of flora.

Mowing meadows to provide optimum foraging conditions for accipitriformes on an area of 8.27 ha

Securing the migration route to reproduction areas for amphibians on the distance of 600m

Maintaining reproduction locations and support for localities of the rosalia longicon by laying out stacks of beech wood

Mowing meadows to create optimum conditions for the presence of valuable invertebrate species on the area of 1.8 ha

Pieniny National Park

The 2014 Protection Plan determines protective actions for 20 years, under which the Pieniny National Park is to pursue the restoration, maintenance and preservation of habitats and species. Introduction of treatments on purchased lands, maintaining regularity of these treatments allows to preserve a wide range of species characteristic for the Pieniny Mountains. The Plan includes a list of special interest species. Species included on the list are covered by monitoring, specifying the condition of plant species or communities. In forest communities, proper for habitats, treatments are to be limited to a minimum allowing a free course of natural processes.

The protective actions focused on habitat protection, including natural habitats, are favourable for the preservation of special interest species. To protect large predators,

ecological corridor protection is conducted, as well as monitoring of their usage. As part of raising knowledge about the consequences of conducted treatments, activities are monitored in forest and non-forest ecosystems on the basis of available methodology. Additionally, monitoring is conducted, of natural habitats or species, which are the object of protection in the Natura 2000 programme.

Apart from ongoing monitoring, research is being conducted, concerning the impact of mechanical mowing on the green growth of meadows, the impact of fertilising with compost, mulching and traditional mowing on meadow communities.

The actions undertaken with the neighbouring Slovak park (PINEAP) consist of a jointly implemented project of protection of the *Parnassius apollo* based on the assumptions prepared by the Polish side. Also, this information is exchanged annually.

As part of the protection of the Dunajec River Gorge against the invasion of the Sosnowsky's hogweed, monitoring and removal of specimens are conducted. Also, as part of joint activities information is transferred on the usage of the ecological corridor in the Dunajec River Gorge by large predators.

Tatra National Park:

A strategy of protecting the brown bears has been developed and consequently carried out, consisting of: eliminating access of these animals to waste containers by protecting human settlements with electrical fences, catching specimens entering urban areas outside the park and causing problems therein, fitting them with GPS/GSM collars and later, scaring them off from these regions with rubber projectiles.

The Tatra National Park entered into relevant contracts with its Slovak partners SL TANAP and Sprava TANAP, in the scope of protection and management of natural resources and scientific and professional cooperation in the scope of fauna research and monitoring.

The Tatra National Park together with its Slovak partners, has developed a monitoring system of the Tatra chamois, which is conducted annually throughout the Tatra Mountains.

As part of the forest management conducted by the State Forests, sustainable use of Carpathian forests allows the implementation of the protection of endemic species of domestic flora and fauna and large predators.

Under the conducted economic activities, ca. 5% of tree stands achieving cutting age or envisaged in the forest management plan for felling is designated in each forest habitat, both within the areas Natura 2000 network and beyond. Simultaneously, forest use provides places for dwelling, reproduction and rearing the young of large predators. Implementation of sustainable forest management allows for maintaining the population of animals constituting a nutritional base for large predators.

The protection of particularly valuable species of protected animals (e.g. bats) is implemented in compliance with the provisions of protection task plans for the Natura 2000 sites, also included in the basic forest management documents for forest districts i.e. forest management plans (PUL).

Examples:

RDLP in Krosno: showing care for protected species it continued, among other things, the implementation of the project of breeding the only wild population of 400 specimens of

wisent in Bieszczady forest districts. The following tasks have been completed: spatial monitoring of the population, wisent health monitoring, genetic monitoring and winter feeding. After the quarantine period due to tuberculosis, in 2017 the reconstruction of the wild herd of European bison "Górny San" was successfully commenced. Another project was also implemented called the "Protection of the Carpathian Forest Fauna - Migration Corridors". The objective of the project implemented since 2011 was the determination and long-term protection of migratory corridors for large forest mammals, which ensure the cohesion of the forest areas of the Bieszczady, Beskid Niski, and Pogórze Przemysko-Dynowskie. In addition, the RDLP in Krosno participated in the following projects: "Species Protection of the Lynx, Wolf and Bear in Poland"(Ochrona gatunkowa rysia, wilka i niedźwiedzia w Polsce) carried out by the WWF Poland "Active Protection of the Aesculapian Snake in the Western Bieszczady Mountains" (Czynna ochrona węży Eskulapa w Bieszczadach Zachodnich) carried out by the Institute of Nature Conservation PAS. It should also be added that the RDLP in Krosno grants significant support to the rehabilitation centre for protected animals "Lecznica dla Zwierząt "ADA"" in Przemyśl. RDLP Kraków: The Forest District Nawojowa carries out a project of protection and reintroduction of the capercaillie within the Jaworzyna Krynicka mountain range. Forest Districts cooperate with NGOs as part of various projects e.g. Carpathian Birds carried out by the OTOP.

RDLP Katowice: Execution of protective task plans for Natura 2000 sites, including active protection of the capercaillie population within the Forest District Wisła – aviary capercaillie breeding is carried out since 2002 – in total, ca. 950 specimens were reared.

In addition, within the forest districts, protection zones, nesting areas and areas of regular stay of the following protected species are being designated and updated: brown bear, golden eagle, lesser spotted eagle, white-tailed eagle, black stork, Eurasian Pygmy-owl, Eurasian eagle-owl, capercaillie, Aesculapian snake and Lobaria pulmonaria.

Aside from that, Poland has for a long time been initiating actions towards developing common management methods of cross-border populations of large predators in Poland and in Slovakia (Polish-Slovak Work Group for Environmental Protection and Silviculture functioning as part of the Polish-Slovak Intergovernmental Commission for Cross-Border Co-Operation).

With regards to other activities for nature protection concerning in particular the Carpathian area it should be pointed out that on 4 March 2016, the General Director for Environmental Protection adopted the "National Programme for the Protection of the Lesser Spotted Eagle in Poland" (Krajowy program ochrony orlika krzykliwego w Polsce).

Additionally, in 2008 the "Red Book of the Polish Carpathians – Vascular Plants" (Czerwona Księga Karpat – rośliny naczyniowe) has been published. The set includes 224 species (slightly more than 10% of all vascular plant species occurring in the wild within the Polish Carpathians), including 18 completely extinct species within the Polish Carpathians, 4 extinct in nature but protected ex situ, 47 critically endangered species, 42 endangered species and 77 vulnerable species.

Actions for the protection of species within the Carpathians are also taken by landscape parks. These include active protection, including e.g. joint visits of landscape park areas with the employees of the Border Guard, Forest Districts, Angling Guard and the Police in order to recognise potential hazards and eliminate them periodical field visits, recording of

vulnerable flora species and preparing photographic documentation, visual check of trees, in order to include them in a form of nature protection – nature monuments.

The protection of endangered genetic resources of cultivated plants and farm animals in Poland, including in the Carpathians, is contributed to by the Agri-Environment-Climate Measure, implemented under the RDP (e.g. package 6. *The Preservation of Endangered Genetic Resources of Plants in Agriculture* and 7. *The Preservation of Endangered Genetic Resources of Animals in Agriculture*). The purpose of the aforementioned Packages is first and foremost, the preservation of vanishing and valuable species and varieties of cultivated plants and production of seeding material of regional varieties, as well as the preservation of domestic breeds of animals by supporting and maintaining the breeding of local, valuable breeds of selected livestock species (cattle, horses, sheep, pigs and goats).

Under Package 7. it is possible to obtain support for specific female specimens covered by the programme of genetic resource protection of a given race, kept by The National Research Institute of Animal Production in Balice near Krakow. This support is paid annually in the period of a 5-year obligation.

Within the aforementioned Package, support is given to sheep breeding. The support applies to the following breeds: wrzosówka, świniarka, olkuska, Polish mountain sheep of the coloured variety, merino of the coloured variety, uhuska, wielkopolska, żelaźnieńska, kordeil, kamieniecka, pomorska, cakiel podhalański, old-type Polish merino, czarnogłówka, owca pogórza.

Other projects:

The Action "*Traditional Grazing Economy in the Carpathians*" implemented under the project "*Carpathians Unite*", carried out by the UNEP-GRID having a positive impact on the preservation and maintaining of habitats of a variety of plant species specific for meadows and grasslands and the preservation of open landscapes constituting convenient hunting areas for numerous species of birds of prey and, at the same time, key foraging areas for wild herbivore species (deer), in turn constituting a food base for large predators, including protected species (Art. 11 and Art. 12 of the Protocol).

The project is implemented by the Upper Silesian Nature Heritage Centre: *Protection of the Campanula serrata and the Crocus scepusiensis* as part of the implementation of the Region Programme for Economic Activation and Preserving the Cultural Heritage of the Beskidy Mountains and the Jura Krakowsko-Częstochowska – Owca Plus until 2020

Between 2011 and 2015 within the project "Birds of the Carpathians" subsidised from Swiss funds, the OTOP conducted research regarding the state, hazards and protection of birds in the Polish Carpathians. Research was based on field inventory-taking of relevant groups of birds on a representative, randomly selected sample of relevant research areas. A monograph published after project completion included a presentation of analyses for ecological groups of forest, river, alpine birds, owls and accipitriformes, as well as detailed data with distribution maps, threat analysis and propositions of protection solutions for 37 key species.

Objective 4 – Measures for continuity and connectivity of natural and semi-natural habitats; ecological network in the Carpathians; enhancing conservation and sustainable management inside and outside the Protected Areas

Pursuant to Articles 9, 14, 15 and 16 of the Protocol

Actions listed in Objective 4 are carried out mainly by way of management and setting subsequent protected areas under the nature protection forms catalogue, established by virtue of the Act on Nature Protection. The concept of a uniform ecological network across the entire country has been implemented to a certain extent (at the landscape level) by creating a network of landscape parks and areas of protected landscape, a considerable part of which has been later designated as Natura 2000 sites. Areas of the Natura 2000 network play an important role in preserving mutual continuity of the ecological network in the Carpathian Mountains.

Within the scope of the Carpathian Convention under the Natura 2000 network, a total of 82 special habitat protection areas have been designated, along with 13 special bird protection areas. From among the above, plans of protection tasks have currently been designated for 4 special bird protection areas and a protection plan is in place for 1 area. Accordingly, for special habitat protection areas, protection plan tasks have been designated for 38 areas, while a protection plan is in place for 2 areas (as of 24.04.2017).

Regional directorates for environmental protection perform the following tasks:

- protection and management of Natura 2000 sites, nature reserves and other forms of nature protection within regions, including coordination of the functioning of Natura 2000 sites, preparation of protection task plans for Natura 2000 sites, protection plans for Natura 2000 sites and nature reserves, as well as execution of the provisions of protection task plans/protection plans for the Natura 2000 sites, in order to maintain/restore the proper condition of protection.
- taking account of the presence of migration corridors in the numerous implemented administrative procedures, including the Main Carpathian Corridor.
- reviewing drafts of the conditions study and directions of spatial management of communes, reviewing drafts of local spatial development plans and issuing decisions on environmental conditions for endeavours consisting of changing forests not being the property of the State Treasury into agricultural land

Regional Local Governments of the Carpathian Region:

1. manage landscape parks
2. actively participate in works of Local Cooperation Units concerning the preparation of drafts of protection task plans for the Natura 2000 sites.

Example:

In the spatial development plan of the Śląskie region 2020+, a network of ecological corridors has been designated, in order to ensure integrity of species habitats and natural habitats and integrity of protected areas, as well as ensure the possibility of species migration. Guidelines have been prepared for proper management of the network. Also,

nature refuges and ecological corridors have been designated, which encompass valuable natural areas located beyond the system of area nature protection forms, and guidelines developed, for the appropriate management of natural refuges and ecological corridors.

Activities carried out by national parks:

Babia Góra National Park

- Membership of a representative of the CHKO Horna Orava in the Scientific Council of the BgPN in order to ensure consultations, coordination and harmonisation of the undertaken protective actions and reviewing drafts of protection task plans and the draft of the protection plan for the BgPN.
- Joint execution with the CHKO Horna Orava (Slovakia) of educational projects "*Forests of Babia Góra as a Natural Wealth of the Polish-Slovakian Borderland*" (*Babiogórskie lasy bogactwem przyrodniczym pogranicza Polski i Słowacji*) and "*Education for Borderland Nature*" (*Edukacja dla przyrody pogranicza*) reinforced the protective and sustainable use of the areas adjacent to protected areas.

Bieszczady National Park

- Preparation of the map of large predator ecological corridors for the Carpathian part of the Podkarpackie region as part of a joint project of two national parks and 11 forest districts.

Gorce National Park

Continuous work for the integrity of the ecological network in the Carpathians by:

- negative reviews of area development and spatial management in the buffer zone of the Gorce National Park,
- introducing relevant provisions to the design of a protection plan for the Gorce National Park and marking out the course of migration corridors for animals, connecting Gorce with neighbouring Carpathian ranges,
- social consultations and arrangements with local communities concerning amendments to spatial development plans of communes from the GPN area, concerning land development in migration corridors.
- monitoring of migration corridors linking Gorce with neighbouring Carpathian ranges by way of winter tracking and camera traps, in cooperation with the RDOŚ in Krakow
- active protection of non-forest communities and close protection of forest communities within GPN areas, under SOOS and OSOP Natura 2000 sites
- efforts for increasing the area of Natura 2000 OSOP Gorce beyond the GPN borders for reasons of protecting one of the few capercaillie populations in the Polish Carpathians

Magura National Park

Preparation of the map of large predator ecological corridors for the Carpathian part of the Podkarpackie region as part of a joint project of two national parks and 11 forest districts.

Pieniny National Park

The Pieniny National Park undertakes actions connected with protecting ecological corridors

between the area of the Park and neighbouring protected areas. As part of protection of those corridors, a Protection Plan has been established, which graphically and descriptively presents these corridors. As part of their protection, spatial management plan projects are agreed upon and opinions issued, concerning the location of buildings. Such a policy enables maintaining them, and thereby, gives actual chances for exchanging organisms at the genetic level.

As part of strengthening protection and management outside the protected areas the Pieniny National Park cooperates with the Regional Directorate for Environmental Protection in Krakow in protecting ecological corridors with neighbouring protected areas. In addition, the Park conducts nature education, which should affect the awareness of the local community and as a result, affect actions outside the protected area, in this case, a national park.

Joint actions for integrity consist of transferring information about use of the ecological corridor in the Dunajec River Gorge by large predators. In addition, both parties cooperate in preserving the ichthyofauna of the Dunajec River Gorge, combating angling poaching.

Tatra National Park

The Tatra National Park undertakes actions connected with protecting ecological corridors between the Park and neighbouring protected areas. The protection plan for the Tatra National Park, which is in development, includes guidelines to local spatial management plans intended first and foremost to maintain said ecological corridors. As part of their protection, projects of local spatial management plans are agreed upon, and opinions concerning buildings locations are issued.

Cooperation between protected areas in the Carpathian area is carried out on a current basis. This applies to both the national parks and the Regional Directorate for Environmental Protection in Krakow.

The Tatra National Park cooperates with the Regional Directorate for Environmental Protection in Krakow in order to maintain existing ecological corridors linking the Tatras with neighbouring protected areas.

The park cooperates with Slovak partners under contracts entered into therewith.

The continuity and mutual integrity between natural and semi-natural habitats of the ecological network in the Carpathians operates largely due to the rational forest management, which aims at preserving the durability of forest habitats.

Examples

- *In 2016, the RDLP in Krosno was implementing a project entitled "Protection of the Carpathian Forest Fauna Refuge – Migration Corridors". The objective of the project implemented since 2011 is the designation and long-term protection of migration corridors for large forest mammals, ensuring the integrity of forest areas of the Bieszczady Mountains, Beskid Niski Mountains and the Przemyśl-Dynów foothills. Field works were conducted by: winter tracking along all hardened roads, collecting information on road crossing by wildlife, wildlife photography. The programme is financed from the funds of the Swiss–Polish Cooperation Programme.*
- *RDLP Krakow - expansion of the "Las Lipowy Obrożyska" and "Wierchomla" reserves, a buy-out of 5 ha of private land and preparation of the design for establishing therein, a nature reserve "Cisy w Wyskitnej". The border Forest Districts cooperate with Slovak*

forest inspectors as part of nature protection and forest education.

- *RDLP Katowice - Counteracting investment projects violating the functioning of ecological corridors in Natura 2000 sites*

Execution of objective 4. is fostered by financial support instruments functioning under the CAP. Apart from the direct subsidies greening implemented since 2015, a principle of mutual compliance is implemented, as well as environmental actions under to Rural Development Programme 2014-2020.

Additionally, meeting the agri-environment-climate measures requirements (Package 4. *Valuable Habitats and Endangered Species of Birds in the Natura 2000 sites* and Package 5. *Valuable habitats beyond the Natura 2000 sites*) leads to an improvement of dwelling conditions of endangered species of birds, whose breeding habitats are connected with permanent grasslands, found special protection areas (SAP) of birds, and also leads to preserving, or restoring the proper condition or preventing deterioration of the condition of valuable natural habitats specified according to the types habitats for the classification of the Habitats Directive and other naturally valuable habitats present in meadows and pastures in the Natura 2000 sites and beyond, by traditional and extensive use of individual habitats.

On the other hand, the afforestation action executed under the Rural Development Programme for 2014–2020 contributes to maintaining and reinforcing ecological stability of forest areas by combining fragmented forest complexes into uniform and continuous landscape structures, the so-called ecological corridors constituting migration routes for animals. It also includes preventing the fragmentation of forest complexes, creating new plantings adapted to habitat conditions (introducing admixed and biocenotic species), protecting newly created forest cultivations and strengthening resistance by way of treatments.

It is also worth noting that in the scope of Art. 9 of the Protocol (continuity and cohesion of the ecological network), in accordance with the competency of the Minister of Infrastructure and Construction, achieving the objective is served by strengthening the effectiveness of the spatial planning regulations, which shall allow the preservation of the continuity of areas constituting ecological corridors, particularly in the case of including recommendations to cover them with protection in the audit, by way of establishing a landscape park or recognising them as priority landscapes. These actions are implemented by way of preparing an Urban-Construction Code, regulations of which include emphasis on investing based on spatial development plans, which will allow, in particular, for the strengthening of the ecological network consistency and actual protection of green areas and habitats, reinforcing the role of ecological corridors defined in spatial management plans and the need to include them in local spatial development plans.

Projects

Between 2012 and 2016, the Rzeszów "Pro Carpathia" association implemented the project entitled Carpathian Forest Fauna Refuge Protection - Migration Corridors. The project is implemented under the Swiss-Polish Cooperation Programme, in partnership with two National Parks: the Bieszczady National Park and the Magura National Park and 11 Forest Districts, the Regional Administration of the State Forests in Krosno and the Carpathian

Natural Landscape Park Complex.

The main objective of the project has been defined as preserving the refuges of forest fauna in the Carpathians within the Podkarpackie region. The following detailed objectives have been indicated: improving knowledge and awareness about the importance of ecological corridors, setting out and preserving existing ecological corridors, maintaining environmental consistency for animal populations.

These objectives were implemented by:

- Identifying the course of all existing local migration corridors, ensuring the movement of selected species of large mammals (wisent, bear, lynx, wolf, deer and wild boar) between forest complexes (habitat patches meeting all life requirements of large forest mammals) located in the Carpathian forest fauna refuge and in neighbouring areas within the area covered by the project and their verification in terms of the possibility of long-term protection.
- Determining the regions of the presence of moose within the area covered by the project.
- Determining the regions of the presence of the lesser spotted eagle within the area covered by the project.
- Information and educational activities.

Achievement of the main aim, which was to indicate ecological corridors between individual habitat patches (forest complexes), critical for maintaining the continuity of the population of large mammals in the distinguished Carpathian forest fauna refuge, was based on a theoretical designation of potential ecological corridors and their verification on the basis of data collected during field works performed in the course of project implementation. Additionally, when designating the functional (existing) corridors, the possibility of their long-term protection has been taken into consideration (investments, village development arising from spatial development plans or condition studies and spatial planning directions of the communes, land ownership, etc.).

Field works under the project had been conducted for four years - from 2012 to 2015. These works were performed by individual Forest Districts participating in the project, as well as the BdPN and MPN. Basic works concerned inventory-taking of indicator animal passages (deer, wild boar, wisent, wolf, lynx, bear and moose) through public roads with hardened pavements. Additionally, in the BdPN and the buffer zone thereof, as well as the MPN and parts of its buffer zone situated in areas covered by the project, long distance snow tracking was conducted with regards to wolves, lynxes and bears. With regards to European bisons, telemetric data was also used.

The most important project result is the valuation of the quality and functionality of local connections between individual habitat patches. An additional result is designating a uniform Carpathian forest fauna refuge, which mostly includes forest complexes constituting habitat population and reproductive patches and areas not being a part of refuges, of little afforestation and low quality of habitat patches for the functioning of the population. Also identified within the area covered by the project, were connections between habitat patches, which are furthest apart, enabling the functioning of viable populations of large forest mammals. These connections indicate a possibility of free movement of these animals within the area covered by the project, which is the condition enabling the preservation of the continuity of spatial distribution of their population across the entire area.

Project results were transferred to all local government units from the area of the project implementation in the region and institutions participating in spatial management.

As part of implementation of the project "*Carpathians Unite*" trainings have been conducted for local governments, entitled "Joint Management in the Carpathian Area. Code of Good Practice". There were supposed to strengthen the protection and sustainable management in the areas located outside the protected areas (Art. 15 of the Protocol) and in landscape parks, as well as maintain and reproduce the ecological continuity and connectivity (Art 9 of the Protocol), by among other things, shaping green infrastructure areas.

Objective 5 – Measures for prevention of introduction of invasive alien species and/or genetically modified organisms threatening ecosystems, habitats or species, their control or eradication:

Pursuant to Article 13 of the Protocol

According to Art. 120, passage 1 of the Act of 16 April 2004 on Nature Protection the introduction of alien animal, plant or fungi species into the natural environment and their movement therein shall be prohibited. Keeping, breeding, reproduction, offering for sale and sale of alien species, which, if released to the natural environment, could endanger native species or habitats, is only possible after obtaining a permit from the competent regional director for environmental protection, while importing invasive species from abroad and simultaneously, keeping, breeding, reproduction, offering for sale and sale of these imported specimens requires a permit of the General Director for Environmental Protection. The minister responsible for the environment, in consultation with the minister responsible for agriculture, defined, by way of a regulation, a list of alien plants, animals and fungi, which, if released to the natural environment, can endanger native species or habitats. This resulted from the need to ensure a continuity of the existence and protection of native plant, animal or fungi species.

A publication has been issued, entitled "Alien Plants in Poland with Particular Focus on Invasive Species" (Rośliny obcego pochodzenia w Polsce ze szczególnym uwzględnieniem gatunków inwazyjnych). It contains a list of foreign plant species that can be found in the natural environment in Poland. Each species has been assessed in terms of the hazard created thereby for native nature, including natural habitats protected under the Habitats Directive.

On the order of the General Directorate for Environmental Protection, guidelines were developed, concerning combating the following species in Poland: giant hogweed, Asian knotweed and pond sliders. These documents constitute a knowledge compendium about the biology of these species and their effect on the natural environment, the economy and human health. The study also contains a review of methods of combating these species, as well as potential sources of financing activities, which aim at eliminating the populations thereof from the natural environment.

The code of good practices "Horticulture with regards to Alien Invasive Plants" (Ogrodnictwo wobec roślin inwazyjnych obcego pochodzenia) was prepared by a group of experts, and its contents were accepted by 20 institutions representing public administration, NGOs, scientific units and leading associations of the horticultural industry. The publication contains

a set of principles that define how to proceed with alien plants, so as to reduce their penetration from our gardens and green areas into the wild. The code is intended for people cultivating their own gardens as well as those professionally involved in horticulture, who would like to contribute to nature protection.

The above publications have been made available on the website: <http://www.gdos.gov.pl/igo>.

In addition, the General Directorate for Environmental Protection signed a contract with the National Fund for Environmental Protection and Water Management, for subsidising the project entitled "Developing the Principles of Control and Combating Invasive Alien Species, along with Conducting Pilot Activities and Social Education" (Opracowanie zasad kontroli i zwalczania inwazyjnych gatunków obcych wraz z przeprowadzeniem pilotażowych działań i edukacją społeczną). The cost of its execution is PLN 20 million, of which 17 million (85%) are subsidies from the Operational Programme Infrastructure and Environment. The project shall be implemented until 30 June 2021.

Under the Agri-Environment-Climate Measures, Packages 4. *Valuable Habitats and Endangered Bird Species in the Natura 2000 sites* and 5. *Valuable Habitats Beyond the Natura 2000 sites* contribute to eliminating invasive species. Requirements for individual types of valuable habitats within the aforementioned packages and the participation of a qualified expert preparing the environmental documentation, allow for limiting the spread of invasive species. The development and spread of these species is limited by proper adjustment of the number of performed windrows (in the case of selected types of natural habitats), mowing or grazing deadlines, specification of proper livestock density or leaving appropriate areas without mowing. The expert, when preparing environmental documentation, including making a detailed field inventory, considers the presence of invasive species in agricultural areas, when particularising the requirements for using given habitats.

According to the national law, Poland constitutes an area free from genetically modified organisms, therefore GMO cultivation and introducing them into the environment is prohibited.

Regional directorates for environmental protection act for the benefit of controlling and restricting the hazards for biodiversity of the Carpathians from invasive alien species, by issuing permits for keeping, breeding, reproduction, offering for sale and sale of alien species (including invasive), which, in the case of releasing them into the environment can endanger native species or habitats.

Examples of actions undertaken by individual entities:

In the Śląskie region:

- *Bans on introducing invasive alien species and GMOs have been included in the spatial policy of the region by proper principles of management for the rural functional area in the Spatial Development Plan of the Śląskie Region 2020+.*

- Preparation and implementation of programmes of combating invasive plant and animal species have been included in the Nature Protection Strategy of the Śląskie Region until 2030.
- The "Invasive Vegetation Removal" task under the priority "Nature Protection" has been set out in the Environmental Protection Programme for the Śląskie Region until 2019 including perspectives until 2024.
- In July 2016, bearing in mind the execution of the objectives designated in the "Nature Protection Strategy for the Śląskie Region until 2030", all communes have received a request to commence activities in the scope of elimination, as well as the spreading of alien invasive species, alongside information on the possibilities of receiving subsidies from the "Regional Operational Programme of the Śląskie Region for 2014-2020" in the case related to combating the spread and eradication of invasive alien species in naturally valuable areas and from the funds of the Region Fund for Environmental Protection and Water Management in Katowice for 2017 in the case of "eradicating the localities of invasive alien species, posing a health risk".

Babia Góra National Park:

Control and eradication of specimens of *Reynoutria japonica* and *Impatiens glandulifera* within the BgPN.

Bieszczady National Park:

Combating alien plant species (giant hogweed), in an area of ca. 1.5 ha

Gorce National Park:

Inventory-taking and monitoring of alien species (including invasive), within the GPN as part of preparing the draft of the park protection plan

Eradicating invasive species: Asian knotweed from the area of the Wodzicki family manor park in Poręba Wielka

Magura National Park:

Refusal of agreement with regards to constructing a mink farm in the Park's buffer zone, due to high risk of the animals escaping and populating the MPN

Combating alien plant species: Sosnowsky's hogweed, *Impatiens glandulifera*, Japanese knotweed and *Nyctereutes* in areas of active protection

Pieniny National Park:

The Pieniny National Park has begun the eradication of Sosnowsky's hogweed from the Park as early as the 1990s and in agreement with the Czorsztyń commune authorities, on the foreground of the Pieniny mountains. In part of the localities, the plant is relatively rare, but within the Park during certain years, it is commonly found.

Since 2002 - combating Asian knotweed and giant knotweed. In order to increase effectiveness, the procedure is performed 3-4 times every year. The disappearance of certain localities can be observed, but also emergence of new clumps which float down the Dunajec river.

In relation to alien species of animals, the *Nyctereutes* has been observed, however last year, no specimens have been found.

Tatra National Park

The Tatra National Park conducts an annual monitoring and removal of invasive alien species. This applies first and foremost to the following species of vascular plants: *Reynoutria japonica*, *Telekia speciosa*, *Impatiens glandulifera*, *Impatiens parviflora*, *Heracleum sosnovskyi*.

Complex of Natural Landscape Parks of the Śląskie Region (ZPKWŚ):

The ZPKWŚ conducts the Project LIFE No.LIFE12 NAT/PL/000081 entitled "Non-Forest Communities Protection within the Landscape Parks of the Beskidy Mountains" Component I nature and biological diversity. The project includes the removal of dense patches of *Rumex alpinus* L. in alpine tundra areas and mountain clearings of the Beskid Żywiecki mountains on a total area of 50ha along with sowing domestic plant species in the area of the *rumex alpinus* presence on 3 ha.

Forest management conducted by the State Forests in a particular manner prevents the introduction of invasive species and GMOs, whose presence creates a hazard for forest ecosystems. Currently, the forest seeding base in Poland operates on the basis of the Act on the Forest reproductive material adopted on 7 July 2001, along with executive regulations thereto. By creating and maintaining forest base material at the proper quantity and quality level, Forest Districts care for the preservation and enhancement of forest diversity.

Examples:

- RDLP Krosno: Tasks in this scope are stipulated in the "Preservation of Forest Genetic Resources and Selective Tree Breeding Programme within the RDLP in Krosno for 2011-2021" (Program zachowania leśnych zasobów genowych i hodowli selekcyjnej drzew na terenie RDLP w Korśnie na lata 2011-2021). Within the RDLP in Krosno, tasks connected with tree stand reconstruction have been carried out for a number of years. For reconstruction – at the stage of project planning management works - pine, spruce and grey alder stands are qualified, growing in post-agricultural areas of the foothills and mountains. The above tree stands, at the stage of currently conducted works for preparing forest arrangement plans, are grouped in the so-called lists of tree stand for reconstruction. Additionally, at the stage of management works, the need for combating invasive species is taken into consideration.
- RDLP Krakow. Forest Districts participate in the implementation of projects designed to remove Sosnowsky's hogweed from the State Forests .

State Forests' units closely cooperate with the Forest Seeding Bureau in Warsaw, the Forest Research Institute and other scientific institutions.

Objective 6 – Measures to support cooperation under the Carpathian Network of Protected Areas:

Pursuant to Articles 7 and 14 of the Protocol

The border national parks cooperate with partners from neighbouring states:

Examples

Bieszczady National Park:

- *Cooperation with the Uzhanian National Nature Park (Ukraine), and Poloniny National Park (Slovakia) and the following landscape parks: Nadsiansky Regional Landscape Park (Ukraine), Cisna-Wetlina Landscape Park and San Valley Landscape Park (Poland) as part of the Biosphere Reserve "Eastern Carpathians"*
- *Cooperation with other national parks e.g. Skole Beskids National Park (Ukraine), Synewyr National Park (Ukraine).*

Pieniny National Park :

It cooperates with its equivalent on the Slovak side – PIENAP. They have a multi-annual framework contract, based on which, annual agreements are prepared, which define areas of cooperation in the scope of joint monitoring of species, protective actions on the Dunajec river, arrangements concerning border investments. The mutual participation of directors of national parks in the park scientific councils, enables ongoing exchange of issues significant therefor.

Tatra National Park:

It has entered into relevant contracts of cooperation with its Slovak partners: SL TANAP and Sprava TANAP.

All Carpathian national parks are in cooperation with each other, as well as the State Forests, regional directorates for environmental protection and NGOs.

State Forests have maintained partner contacts with Slovakia and the Carpathian Euroregion (Euroregion Karpacki): In September 2015 representatives of the RDLP in Krosno participated in the conference summarising the implementation of micro-projects financed from the financial perspective 2007-2013, organised by the Carpathian Euroregion. As part of this programme, two micro-projects were carried out:

- "International Forest-Educational Trail Udava–Solinka" (Międzynarodowa leśna ścieżka edukacyjna Udava–Solinka)
- "European Bladdernut as a Symbol of Polish and Slovak Border Region Cooperation" (Kłokoczka południowa roślinnym symbolem współpracy polskich i słowackich regionów nadgranicznych).

As part of the "Carpathians Unite" project, carried out by the UNEP–GRID, an action was implemented entitled "Consultation and Cooperation Platform". Under this action, a National Carpathian Work Group for Biological and Landscape Diversity was created, with the task of preparing and consulting the project of the National Action Plan for the Implementation of the Protocol in the Polish part of the Carpathians. This group included experts delegated by directorates of Carpathian National Parks and Landscape Park Complexes – i.e. Polish member areas of the Carpathian Network of Protected Areas. Representatives of protected areas also participated in the works of the National Carpathian Work Group for Sustainable Tourism, which worked on guidelines for the development of balanced tourism in the Carpathian Mountains (for use in the preparation of the Sustainable Tourism Development Strategy for the Magic Lemka and Pogorzan Country (Magiczna Kraina Łemków i Pogórze)) and the concept of developing a Vlach Culture Trail (Szlak Kultury Wołoskiej).

Objective 7 – Development and implementation of management plans or conservation measures:

Pursuant to Article 17 of the Protocol

In accordance with the provisions of the Act of 16 April 2004 on Nature Protection (Journal of Laws of 2016 item 2134, as amended), the basic tools for identifying hazards within the area of nature protection forms and preparing protective actions in response thereto, are protection plans and protection task plans. Protection plans shall be prepared and implemented for national parks, nature reserves and landscape parks. A plan may also be prepared for a Natura 2000 site or a part thereof, whereas the basic document for the Natura 2000 site is the protection task plan, and the protection plan for the area or a part thereof is prepared, should the need arise for detailing the planning.

Within the geographical range of the Carpathian Convention, under the Natura 2000 network a total of 82 special habitat protection areas have been designated, along with 13 special bird protection areas. Among the above, currently protection task plans have been prepared for 4 special bird protection areas and a protection plan is in place for 1 area. Accordingly, with regards to special habitat protection areas, protection task plans have been prepared for 38 areas, and protection plans are in place for 2 areas (as of 24.04.2017).

In the case of species protection of plants, animals and fungi, preparation and implementation of protection action plans is conducted in the form of a list of protected species, along with prohibitions binding in respect thereto included in the relevant regulations of the Minister of the Environment.

In relation to other activities for nature protection, it should be pointed out that on 4 March 2016 the General Director for Environmental Protection adopted a "National Programme for the Protection of the Lesser Spotted Eagle in Poland" (Krajowy program ochrony orlika krzykliwego w Polsce) (in accordance with Art. 57 of the Act on Environmental Protection).

Regional directorates for environmental protection create plans of protection tasks for the Natura 2000 sites with the identification of the distribution of valuable species and natural habitats, their conservation status, as well as activities necessary for the achievement thereby of a proper conservation status. They also prepare protection plans for nature reserves.

The RDOŚ in Rzeszów as part of the project "Preparation of the Draft of the Protection Plan for the Natura 2000 site of the Bieszczady Mountains PLC 180001 sans the Area of the Bieszczady National Park", financed from the funds obtained from NFOŚiGW, prepared a draft of the protection plan of the Natura 2000 site located within the range of application of the Carpathian Convention.

Local authorities of the Carpathian region introduce to their management plans provisions concerning mountain landscape and nature protection. Also protection plans for landscape parks are prepared, which are supposed to contribute to a better protection of the most valuable natural and landscape areas in the region.

For landscape parks located in the Małopolska part of the Carpathians, it is planned to

conclude works on the plans and approve them until the end of 2018.

Within the Podkarpackie region the Jałiski Natural Landscape Park, the Ciśniańsko-Wetliński Natural Landscape Park and the Słonne Mountains Landscape Park, all have protection plans in place. The provisions of these plans and cooperation with institutions and entities operating within the parks are carried out by the Carpathian Landscape Park Complex in Krosno and the Landscape Park Complex in Przemyśl – organisational units of the Podkarpackie Region Local Government.

Relevant actions are also conducted by national parks:

Babia Góra National Park:

Preparation and implementation of a protection task plan for the BgPN for 2016-2018

Preparation of the draft of Protection Plan for the Natura 2000 site of the BgPN in 2016

Bieszczady National Park:

Preparation of the long-term protection plan draft for the Bieszczady National Park

Preparation and implementation of protection task plans (annual or three-year) for the Bieszczady National Park

Preparation of a framework management plan for the International Biosphere Reserve "Eastern Carpathians" (for three states).

Gorce National Park:

Preparation and implementation of protection task plans for the GPN accounting for the needs of active protection of mountain clearings with support of the traditional pastoral and mowing economy.

Preparation of a draft of the protection plan for the Gorce National Park for 2015-2034 with participation of local governments in defining tasks and methods of spatial development of communes and designating the course and size of migration corridors

Magura National Park:

Preparation of a draft of a multi-annual protection plan draft for the Magura National Park and the Magura Refuge (Natura 2000 refuge)

Preparation of a draft of the protection tasks plan for the Low Beskids Refuge

Preparation and implementation of annual protection tasks plans for the Magura National Park

Pieniny National Park:

The Pieniny National Park has a protection plan published as a Regulation of the Minister of the Environment of 1 July 2014 on establishing a protection plan for the Pieniny National Park (Journal of Laws of 2014 item 1010). This is a strategic document prepared for 20 years, specifying activities of the Park.

Tatra National Park:

In individual years protection tasks were carried out resulting from current orders of the Minister of the Environment concerning protection tasks for the Tatra National Park.

A draft of the protection plan has been prepared for the Tatra National Park. The document determines the framework for the functioning of the National Park for 20 years.

State Forests prepare forest management plans containing scopes of protection tasks for part of the Natura 2000 sites located on grounds managed by the Forest District, in order to provide long-term protection, maintenance or restoration, continuity and consistency and sustainable use of natural and semi-natural habitats, restoration of degraded habitats, as well as long-term protection and sustainable use of domestic species of flora and fauna in the Carpathian Mountains.

Simultaneously the RDLP and Forest Districts actively participate in preparing planning documents by administration units and associations, the scope of which includes protected species management plans or protective action plans for valuable habitats and species.

During the workshop part of the training for local governments entitled "Common Management in the Carpathian Area. Code of good practice" conducted under the implementation of the project "*Carpathians Unite*", on the basis of the text of the Protocol and the NAP draft, participants of the trainings developed a number of proposals of local projects (commune or supra-commune scope) for the implementation of the Protocol. Among the project proposals prepared by the participants of the aforementioned trainings (including representatives of local governments and employees of 62 local government offices in the Polish part of the Carpathians), almost half (47%) were proposals of actions for the protection, maintenance, restoration and sustainable use of habitats in the Carpathian Mountains (Art. 8 of the Protocol), restoration of degraded habitats (Art. 10 of the Protocol), protection and sustainable use of species of flora and fauna and protection of endangered species (Art. 11 and Art. 12 of the Protocol). 21% of the proposed projects concerned ensuring continuity and ecological connectivity (Art. 9 of the Protocol), which included shaping green infrastructure areas and preventing building dispersal. On the other hand, as much as 26% of local project proposals concerned activities for landscape protection (Art. 1, passage 1 of the Protocol).

Objective 8 – Consultation, harmonization and coordination of measures in border areas:

Pursuant to Articles 7, 16, and 20 of the Protocol

Coordination in the scope of measures undertaken within border areas takes place e.g. as part of collaboration in UNESCO transboundary Biosphere Reserves: Eastern Carpathians (Poland, Slovakia and Ukraine) and the Tatra Mountains (Poland and Slovakia).

It is also one of the topics covered by bilateral cooperation between Poland and neighbouring states, especially the Czech Republic and Slovakia under:

- The Polish–Czech Mixed Commission for Cooperation in the Field of Environmental Protection
- The Work Group for Environmental Protection and Forest Management, operating under the Polish-Slovak Intergovernmental Commission for Cross-Border Co-Operation

State Forests maintain partner contacts with Slovakia, Ukraine and Hungary. An example is the cooperation of the RDLP in Katowice with Slovakia in 2009-2011 under INTERREG CE. funds Among other things, it covered the renewal after the European spruce bark beetle plague of ca. 900 ha on the Polish side and ca. 200 ha on the Slovak side

Under the described activities, organisational units of the RDLP in Krosno carried out micro-projects:

- "International Forest-Educational Trail Udava–Solinka",
- "European Bladdernut as a Symbol of Polish and Slovak Border Region Cooperation".
- "Promotion of the Natural and Cultural Heritage of the Polish-Slovakian Border Region by way of Bicycle Routes".

As part of their tasks, regional directorates for environmental protection conduct arrangements/reviews of actions within border regions at the stage of strategic environmental impact assessment, approving strategic documents on forms of nature protection, impact assessments on the Natura 2000 site.

National parks conduct active cooperation at the international level;

Babia Góra National Park:

Membership of a representative of the CHKO Horna Orava in the Scientific Council of the BgPN in order to ensure consultations, coordination and harmonisation of the undertaken protective actions and reviewing drafts of protection task plans and the draft of the protection plan for the BgPN.

Bieszczady National Park:

The cooperation within the International Biosphere Reserve (MBR) "Eastern Carpathians" with Uzhanian National Nature Park (Ukraine) and Poloniny National Park (Slovakia) and the following landscape parks: Nadsiansky Regional Landscape Park (Ukraine), Ciśniańsko-Wetliński Natural Landscape Park and The San Valley Natural Landscape Park (Poland). The body coordinating the MBR actions is the Biosphere Reserve "Eastern Carpathians" Coordination Council composed of 15 members (5 people from each state).

Pieniny National Park:

With regard to Art. 7: The Pieniny National Park cooperates in the concerned scope with its equivalent on the Slovak side – PIENAP. They have a multi-annual framework contract, based on which, annual agreements are prepared, which define areas of cooperation in the scope of joint species monitoring, protective actions on the Dunajec river, arrangements concerning border investments. The mutual participation of directors of national parks in the park scientific councils, enables ongoing exchange of issues significant therefor.

With regards to Art. 16: the joint actions undertaken in the concerned scope consist of transferring information about the use of ecological corridor in the Dunajec River Gorge by

large predators. Current flow of information affects the planning of species protection. Also, experiences concerning the protection of the *Parnassius apollo* conducted by both sides are transferred on an ongoing basis.

With regards to Art. 20: The Pieniny National Park cooperates with the Pieniny National Park (PIENAP) in Slovakia. A multi-annual framework contract was entered into, which was the basis for preparing annual agreements determining areas of cooperation in the scope of joint species monitoring, protection actions on the border Dunajec River, arrangements on border investment.

Tatra National Park:

The Tatra National Park entered into appropriate agreements with its Slovak partners, the SL TANAP and Sprava TANAP, in the scope of natural resources protection and management, and related to the scientific and professional cooperation in the scope of fauna research and monitoring.

Objective 9 – Measures in support of the development of compatible monitoring systems and a joint information system:

Pursuant to Articles 18, and 19 of the Protocol

On the order of the Chief Inspector of Environmental Protection under the National Environmental Monitoring, on ca. 11 thousand test areas - so-called positions - throughout the country, the monitoring of plant and animal species and natural habitats is conducted. It includes 97 species of animals, 74 species of plants and 78 types of natural habitats (not only those listed in annexes to the habitats directive). The location of research positions includes the Carpathians and is stated per each commune on the Chief Inspectorate of Environmental Protection (GIOŚ) website devoted to this monitoring at: <http://siedliska.gios.gov.pl/pl/monitoring/lokalizacja-stanowisk>

All species and habitat types are monitored according to a single system but based on various indicators selected accordingly to their environmental conditions and biology. The aforementioned methodological system is adapted to reporting requirements concerning the determination of protection conditions in the report on implementation of the habitats directive. The methodologies have also been published on the GIOŚ website. In order to familiarise other states with the methodology applied in Poland, 5 monitoring methodologies for 5 different types of natural habitats have been translated into English (4 of which can be found in the Carpathians – 6210, 6520, 7230 and 9180). This material was made available on the GIOŚ website at: <http://siedliska.gios.gov.pl/pl/publikacje/przewodniki-metodyczne> . Currently, 6 more methodologies are being translated into English (2 species of plants, 2 species of animals and 2 types of natural habitats).

The above website, at: <http://siedliska.gios.gov.pl/pl/wyniki-monitoringu/2015-2018> also gives the opportunity to familiarise oneself with monitoring results.

The Chief Inspectorate of Environmental Protection also cooperates with forest districts in relation to the conducted habitats and species monitoring.

Since 2016, a common, periodical inventory-taking of plant and animal species has been conducted within the RDLP in Krosno, along with a parameterisation of selected biotope features. The inventory-taking is conducted in forest districts grouped in the RDLP in Krosno

as well as the Magura and Roztocze National Parks. Said parks are considered reference areas.

Additionally, PGL State Forests, keeps records of statutory forms of nature protection in the internal IT system (SILP), which enables the proper planning and implementation of business operations, accounting for nature protection requirements. While executing item 2 of part 4 of the Forest Protection Instructions, State Forests organisational units conduct an annual review of selected forms of nature protection, located within managed areas.

The RDLP in Krosno also monitors the effects of the implementation of the PUL provisions for forest districts.

As part of their tasks, regional directorates for environmental protection keep registries of nature protection forms: nature reserves, landscape parks, areas of protected landscape, nature monuments, documentation positions, ecological sites and natural-landscape complexes, as well as gather documentation related to natural resources, formations and components, in particular natural formations, positions of protected species of plants animals and fungi, which are valuable for scientific reasons.

National parks have their own geographical information systems, used by their employees during the execution of protective tasks and natural monitoring.

Additionally, within the Gorce National Park, a system of internal monitoring adapted for the needs of monitoring is in place, with regards to species and habitats, which constitute the object of protection within the European Natura 2000 sites, and information on species diversity in the park in developed taxonomic groups is made available on the park's website.

With regards to international cooperation:

Pieniny National Park does not have a uniform monitoring system common with PIENAP, however, the employees of both parks, as part of their professional activities, jointly monitor selected species. Ornithologists conduct joint observations of the peregrine falcon and golden eagle, botanists exchange observations on the prevalence of the *Erysimum hungaricum*. A project of protecting the *Parnassius apollo* is carried out jointly on the basis of assumptions prepared by the Polish side. Also, this information is exchanged annually.

Supporting activities consisting of creating coherent systems in the scope of research coordination in the Pieniny National Park are conducted by a team for making the Park available for scientific research. They are also carried out on the local level, between the department for making available for scientific research, and substantive departments.

Tatra National Park based on contracts entered into with SL Tanap and Sprava Tanap, develops common monitoring principles. One example of such activities is the joint monitoring of the Tatra chamois conducted throughout the Tatra Mountains and exchanging information on the migration of large predators. Additionally, within the information flow within the TPN-issued quarterly "Tatry", information and articles are published, concerning significant events on the Slovak side of the Tatra Mountains. A joint, Polish-Slovak version of the "Tatry" quarterly is also published.

Within the action entitled The "Carpathian Informatorium" of the "Carpathians Unite" project,

an Internet portal has been created, with the goal of making available data, which may be used for protecting biological and landscape diversity of the Carpathians by institutions, organisations, local governments and local communities participating in implementing the Convention.

The Carpathian Informatorium presents data resources on the Polish part of the Carpathians with the use of modern geo-visualisation techniques and geo-information technology. The Carpathian Informatorium portal is intended for three groups of recipients: experts and scientists, local governments and Carpathian inhabitants, as well as Carpathian enthusiasts and tourists. The portal enables the exchange of information and conducting consultations (e.g. arrangements concerning planning documents), both within individual thematic work groups, and between local authorities, institutions and experts cooperating in the implementation of the Convention in Poland (access to the module for experts and scientists is limited only to authorised users of the portal).

The Carpathian Informatorium (<http://www.konwencjakarpacka.pl/>) is currently the main source of information on the Carpathian Convention available in Polish. The English version of the Carpathian Informatorium (available at <http://en.konwencjakarpacka.pl/>) presents information on implementing the Convention in Poland (in particular concerning the implementation of the project "Carpathians Unite", under which the website was established).

Execution of the action "Carpathian Informatorium" additionally served the introduction of Art. 13 passage 1 of the Convention, which obligates the Parties to raise environmental awareness and improve society's access to information about the protection and sustainable development of the Carpathians.

Objective 10 – Measures of coordination of scientific research:

Pursuant to Articles 19 and 20 of the Protocol

Regional directorates for environmental protection issue permits for deviations from bans in relation to plant, fungi and animal species covered by protection and deviations from bans in nature reserves due to planned scientific research.

Under the "Carpathians Unite" project, the Carpathian Scientific Council was created, which, apart from scientists involved in the wide arrange of topics related to the Carpathians, includes the representatives of the local government and institutions involved in nature protection. The primary objective of the Council is to coordinate scientific research within the Carpathians and initiate projects of particular importance for the Carpathians. The Council assembled in 2015 and 2016.

Scientific research is conducted under statutory activity by national parks. Additionally, national parks make their areas available for scientific research and monitoring to institutions dealing with basic research and nature protection.

Babia Góra National Park

As part of executing the Contract of cooperation between the BgPN and CHKO Horna Orawa, information is transferred on an ongoing basis on scientific publications, containing

results of the tests conducted within the protected areas and information about implemented research topics, including information for interested research teams, on the possibilities of cooperation with the neighbouring protected area or a research team implementing a similar research topic in that area.

Bieszczady National Park

The Bieszczady National Park, under its statutory activity, conducted 14 research topics implemented by its own research workers and made its area available to more than 120 topics of scientific and monitoring works implemented by external institutions. The BdPN hosts an annual international academic conference, invitations for which are also extended to Slovak and Ukrainian partners. The conference was also held in recent years under the following topics: "Humans and Nature in the Carpathians - Landscape Transformations, Competition for Space and Natural Resources" (Człowiek i przyroda w Karpatach - przekształcenia krajobrazu, konkurencja o przestrzeń i zasoby naturalne)(September 2012) "40 years of the Bieszczady National Park Protection Against the Research History, and Biodiversity Protection of the Eastern Carpathians" (40 lat ochrony Bieszczadzkiego Parku Narodowego na tle historii badań i ochrony różnorodności biologicznej Karpat Wschodnich) (September 2013) "Impact of Anthropogenic Factors on Plant and Animal Distribution in the Carpathians" (Wpływ czynników antropogenicznych na rozmieszczenie roślin i zwierząt w Karpatach) (September 2014) "Protection of Forest Fauna Refuges - Migration Corridors" (Ochrona ostoi fauny puszczańskiej - korytarze migracyjne) (September 2015) "Nature Protection in National Parks and Regional Development"(Ochrona przyrody w parkach narodowych a rozwój regionalny) (September 2016). Materials from these conferences and results of other research works carried out within the area of the MRB "KW" and adjacent areas, are published in the "Bieszczady Yearbooks" (Roczniki Bieszczadzkie) (vol.XX- XXIV) issued by the BdPN

Gorce National Park

- The concept and coordination of activities under the Project "Protection of the *Tetrao urogallus* Capercaillie and the *Tetrao tetrix* Black Grouse and Their Biotopes in Western Carpathians", Stage I 2005–2006; stage II 2006–2010 – technical management, development and maintenance of a database on part of the GPN, entities included: Małopolskie Region Office (Project Applicant; sponsor: Ecofund), Gorce NP, Tatra NP, Babia Góra NP, RDLP in Kraków (and State Forest Districts: Nowy Targ, Krościenko, Myślenice and Sucha Beskidzka, Nawojowa, Piwniczna, Stary Sącz, Wisła, Ujsoły, Węgierska Górka and Jeleśnia, Limanowa)
- Partner in the project: "Protection of Alkaline Peat Bogs (7230) in Southern Poland" co-financed from the funds of the LIFE+ financial instrument, the National Fund for Environmental Protection and Water Management and the Regional Directorate for Environmental Protection in Rzeszów, run by the NGO "Klub Przyrodników" ; implemented from September 2012, to June 2018

Magura National Park

- Ongoing cooperation with the University of Agriculture in Krakow.
- Coordination of scientific research and making the park area available for conducting scientific and monitoring works implemented by external institutions – annually ca. 15 topics.

Pieniny National Park

The coordination of research in the Pieniny National Park is conducted by a team for making the Park available for scientific research, and annually prepared list of tests is approved by the PPN Scientific Council. During the year, ca. 70 research works are implemented. Results of tests conducted in the PPN are published in the Pieniny – Nature and Man (Pieniny – Przyroda i człowiek) magazine, edited at the PPN. In this manner, knowledge about the effects the work of scientists operating in the Park is popularised.

Tatra National Park

Every year, ca. 120 research works are conducted within the TPN. The TPN coordinates research conducted by external institutions at the stage of issuing permits for conducting research within the Park. Additionally, every five years, the TPN organises scientific conferences in the course of which results of research in the Tatra Mountains are presented. The conferences are actively participated in by partners from Slovakia. The results of these works are also presented in Research Bulletins published after the conference.

TPN employees also participate in scientific conferences organised in other protected areas of the Carpathians and thematic conferences of a European and global scope (e.g. International Bear Conference).

Areas under the administration of PGL State Forests are the object of constant interest of academic units, administration and independent entities conducting numerous inventory-taking, observation and monitoring activities. Scientific research ordered in the State Forests is coordinated by the General Directorate of State Forests.

Objective 13 – Other measures of international cooperation:

Pursuant to Article 7 of the Protocol

Operations within the scope of international cooperation, which were not mentioned previously:

State Forests actively support the development of international cooperation and working contacts at the level of RDLP in cross-border areas, including the Carpathian region. In 2016 organisations managing state forests in Poland, the Czech Republic, Slovakia and Hungary signed a contract of cooperation. The purpose of the agreement is improving cooperation, exchanging experiences and information on current challenges related to forests management in the states of the region. Apart from the Polish State Forests, the document was signed by representatives of the State Forests of the Czech Republic (Lesy CR, sp.), the Republic of Slovakia (LESY Slovenskej Republiky, šp.) the Republic of Hungary. Among the areas of cooperation, problems of forest protection and managing post-disaster areas were listed, especially in mountain areas, as well as the exchange of experiences in the scope of the Natura 2000 sites, game management and certification.

Practical execution of the cooperation engages regional directorates of the State Forests, including the RDLP in Krosno in 2015 participated in the Polish-Slovak meeting, during which decisions were taken, about applying for funds under the Cross-border Co-operation Programme Interreg V-A Poland-Slovakia 2014-2020. During subsequent working meetings in Baligród and Turčianske Teplice, professional staff worked on common projects concerning "Bicycle Routes", "Horseback Routes", as well as "Preserving the Cultural and Natural

Heritage by Way of Innovative Teaching Methods".

Every year, representatives of the RDLP in Krosno participate in the "Tree Day" – a holiday for Slovak foresters, and the Slovaks participate the "Forest Day" organised by the foresters of Podkarpacie. During such visits, foresters exchange experiences, e.g. in September 2015 representatives of the Slovak side have been familiarised with the Polish, web-based wood selling system.

Constant contact is maintained with Slovak entrepreneurs with regards to trading wood and forest reproductive material.

Also in recent years cooperation with Ukrainian foresters has been tightened by means including organising study visits in forest districts and constant contact with the Ukrainian Forest Resource Agency.

Representatives of the RDOŚ in Krakow take part in conferences, international symposiums, as well as directly cooperate with nature protection institutions, by, among other things, hosting delegations from the Czech Republic and Slovakia.

In the Babia Góra National Park, works are underway on the concept of creating a cross-border "Babia Góra" biosphere reserve

In the Bieszczady National Park a micro-project has been implemented entitled: "International "Eastern Carpathians" Biosphere Reserve – Our Common Heritage" (Międzynarodowy Rezerwat Biosfery „Karpaty Wschodnie” – nasze wspólne dziedzictwo) co-financed by the European Union from the European Regional Development Fund and the state budget via the Carpathian Euroregion under the Cross-border Co-operation Programme Republic of Poland – Republic of Slovakia 2007-2013. Actions carried out under this project are: diorama, publications, educational workshops, cross-border educational trails.

The Carpathian Landscape Park Complex in Krosno took part in a meeting, held in 2016 concerning the discussion of the project under the Cross-Border Co-Operation Programme Interreg V-A Poland-Slovakia and its scope of activities. During the meeting, the course of the cycling route has been discussed, including points specified by partners declaring joint project implementation. Joint arrangements have been made, concerning, among other things, proposal of promotional activities to be organised by each of the partners.

Under the "Carpathians Unite" project, in cooperation with the Secretariat of the Convention in Vienna, on 22-24 October 2014 in Kluszkowce (Małopolskie region), the first meeting of two international Convention working groups, WG Biodiversity and WG Spatial Planning/Development, in the history of the Carpathian Convention was organised, aiming at a better inclusion of Protocol objectives in the policy concerning spatial planning (Art. 5 of the Protocol).

The Rzeszów based "Pro Carpathia" association for four years has been a member of an international association, gathering environmental organisations from around Europe, under the name "CEEWeb for Biodiversity" based in Budapest. Currently, CEEWeb is comprised of ca. 60 organisations from 20 countries, which jointly aim to preserve the natural heritage of Central and Eastern Europe, protect biodiversity and achieve sustainable development of tourism. Members of the organisation have an opportunity to exchange experiences, inform each other on an ongoing basis about the possibility of taking actions and jointly take initiatives in the area of biodiversity.

Objective 15 – Measures on education, information and public awareness:

Pursuant to Article 24 of the Protocol

Educational, information and public awareness-raising activities in the scope of the Protocol objectives, and also in relation to Protocol implementation, are undertaken by all institutions involved in implementing the provisions thereof.

Actions carried out by regional directorates for environmental protection:

- The process of development of protection plans and protection task plans for the Natura 2000 sites ensuring public participation, with rich information about individual Natura 2000 sites for the people participating in local cooperation teams.
- Publication of folders informing about selected Natura 2000 sites.
- Participation in meetings with Carpathian region inhabitants during local events
- Preparation of environmental texts, publication of environmental monographs concerning Natura 2000 sites in the Carpathian Mountains
- Conducting trainings for farmers and breeders

Marshal Offices issue promotional and informational publications (e.g. the Małopolska Marshal's Office – publications concerning oscypek trail), publish press articles in local newspapers.

A broad educational and publishing activity, including in the scope of training programmes for various groups of stakeholders and employee trainings, is conducted by national parks. It includes the following actions: ongoing activity of Educational Centres in individual national parks, organisation of thematically varied expositions, placing educational boards in the field, education via environmental trails, conducting educational classes with various stakeholder groups including field classes, organisation of educational contests, participation in large educational events organized by other organisations, publication of various educational materials including publishing and informational activities concerning the need of active protection of mountain clearings and landscape by involving local communities in traditional land use and upholding shepherding traditions, carrying out voluntary programmes involving willing persons in work in the park, trainings for Beskidy Mountain guides focused on the issues of nature protection and making the park available.

Examples:

Babia Góra National Park

- *Implementation of educational projects with CHKO Horna Orava (Slovakia)*
- *Publications "Forests of Babia Gora a Natural Wealth of the Polish-Slovak Borderland" (Babiogórskie lasy bogactwem przyrodniczym pogranicza Polski i Słowacji) and "Education for the Nature of the Borderlands" (Edukacja dla przyrody pogranicza), co-financed by the Beskidy Euroregion.*

Bieszczady National Park

Permanent educational programmes for children and teenagers, including ca. 900 of kindergarteners and schoolchildren annually

"Summer Meetings with Nature" – for people living in the vicinity of the BdPN and tourists. The lectures involved participation of ca. 300 people annually.

Education via environmental trails within the BdPN - ca. 400,000 people annually

Field educational classes on BdPN environmental trails

Lectures, diaporama and film showings about the nature in the BdPN (involving ca. 2000 people annually)

In the scope of editorial operations - recently ca. 30 popular, popular science and scientific publications.

Landscape Parks Complexes execute, within the landscape parks managed thereby, a statutory task, which is conducting natural education at schools and among local society, as well as promoting natural, historical, cultural and tourist values of the landscape park. They provide information about regulations on nature protection to people present within the protected areas. Representatives participate in various scientific conferences.

Example:

In November 2016 the Carpathian Landscape Park Complex in Krosno completed implementing a project entitled "Creating an Educational-Natural Exposition in the Carpathian Landscape Park Complex in Krosno" (Utworzenie ekspozycji edukacyjno-przyrodniczej w Zespole Karpaccich Parków Krajobrazowych w Krośnie). The exhibition presents an arrangement of natural, cultural and geological space of Carpathian landscape parks, using combined forms of communication i.e. dioramas, forest set installations, animal and plant mock-ups, multi-surface photography, light and sound effects. Under project execution, the educational-natural exposition was installed, comprised of three parts: flora and fauna, culture and geology. Education is conducted by carrying out lessons in the educational room of the Complex, field lessons, educational meetings in schools. In 2012-2016 educational classes were organised and conducted for 417 groups with a total of 17 862 people. Among other things, the Complex organises ecological, plastic and literary competitions, painting open-air and partakes in various events.

State Forests possess an educational base in the form of forest education centres and chambers, educational trails, environmental trails, forest education points and other educational facilities. Education is conducted via field lessons and guided trips, educational meetings with foresters in schools, forest competitions (knowledge, art, literary), various campaigns and events (educational exhibitions, festivals, fairs), popularisation of knowledge on forests via websites e.g. "Czas w Las", via environmental-forest trails, educational centres and environmental-forest chambers.

State Forests also provide financial support to publications concerning the Carpathian environment, e.g. "Polish red list of ferns and flower plants" (Polska czerwona lista paprotników i roślin kwiatowych) issued in 2016 by Institute of Nature Conservation.

Another part of educational actions is the Forest Promotional Complex "Forests of the

Bieszczady Mountains" (LKP Lasy Bieszczadzkie), created by way of Regulation No. 63 of the General Director of State Forests of 29 November 2011, which has been enlarged in 2015 to a total area of 69.5 thousand ha. - comprised entirely of the following forest districts: Baligród, Cisna, Lutowiska and Stuposiany. The LKP is a functional area of environmental, educational and social importance. The purpose for its establishing is the promotion of a permanently sustainable forest management and the protection of natural resources in forests. A place of importance in the LKP Lasy Bieszczadzkie are facilities of the Forestry Promotion Centre in Muczne, including: a model European bison pen, open-air charcoal burning museum, or a pavilion presenting the protected fauna of the Bieszczady Mountains.

Actions in the scope of education, informing and raising public awareness constituted one of the key elements the "Carpathians Unite" project.

- Under the project a portal was created and is maintained entitled "Carpathian Informatorium" (Informatorium Karpackie) (see: answer to the question concerning Objective 9), which, within the initial three years of operation, was used by ca. 20 thousand people.
- Another important action for obtaining allies in implementing the Protocol among local environments, was organising three (2012, 2014, 2016) conferences at the superregional level, addressed to representatives of local governments from the Polish part of the Carpathians entitled "Carpathian Commune Forum" (Forum Gmin Kaprackich).
- Also of crucial importance were the lectures conducted under the action entitled "Consultations and Cooperation Platform", conducted by the "Carpathian Open University", trainings concerning the Carpathian Convention and trainings entitled "Mediations for the Protection of the Environmental and Landscape Heritage of the Carpathians", which involved participation of a total of ca. 2 700 people.
- On the other hand, training for local governments entitled "Common Management in the Carpathian Area. Code of Good Practice", designed to support spatial planning in communes for nature and landscape protection, as well as shaping green infrastructure areas, involved participation of 156 people, among which the largest group of recipients (54%) were employees of 62 commune offices in the Polish part of the Carpathians, 31% were representatives of commune local governments, and 15%, NGO members and representatives of scientific communities.
- One of the numerous publications issued under the implementation of the "Carpathians Unite" project is the guide concerning the implementation of the Carpathian Convention (including the Protocol on protection and sustainable use of biological and landscape diversity).
- Mention should also be made of trainings conducted under the action entitled "Traditional Pastoral Economy in the Carpathians" (79 meetings), concerning pastoralism (a total of 1978 participants) and three international Pastoral Conferences.

The Rzeszów "Pro Carpathia" association took actions concerning education, information and raising social awareness in the scope of biodiversity and sustainable use of natural resources of the Podkarpackie region under the following projects:

- 1) Project "Green Podkarpacie – Popularisation of Biodiversity in the Ecosystem Perspective", implemented between 2014 and 2016, co-financed from funds FM EEA. Among the aforementioned activities, particular mention should go to:

- a cycle of 5 trainings for local communities aiming to familiarise active citizens with the issues of biodiversity and sustainable development in such a way, so as to demonstrate that functioning and managing in the areas covered by various kinds of nature protection does not need to be a restriction for them and even conversely - natural qualities may be a source of development and a unique distinguishing feature from among other regions,
 - a cycle of 5 trainings for teenagers aimed at presenting both general issues concerning biodiversity, its importance for proper functioning of ecosystems and ways of protection thereof; meetings were also devoted to maintaining, restoring and stopping the pace disappearance of valuable habitats,
 - a cycle of 11 (3-day) trainings for most active licensed Beskidy Mountain guides aiming to familiarise them with the natural values of the Podkarpackie region, their most valuable elements, environmental trails alternative to the main, crowded routes through the Beskidy Mountain, within the entire region,
 - publications: "Red Book of Plants of the Podkarpackie Region" (Czerwona Księga Roślin Województwa Podkarpackiego), "Guide To Selected Environmental Trails of the Podkarpackie Region" (Przewodnik po wybranych ścieżkach przyrodniczych województwa podkarpackiego), "Aquatic Fauna of Carpathian Streams" (Fauna wodna potoków karpackich), distributed to schools of all levels, libraries, institutions, organisations related to nature protection, environmental education centres, as awards in environmental competitions etc.,
 - a cycle of 12 film episodes concerning environmental trails and 1 film concerning biodiversity entitled "Treasures and spectacles of Carpathian nature" (Skarby i spektakle podkarpackiej przyrody), aired multiple times by TVP Rzeszów, available on the website www.zielnepodkarpacie.pl,
 - the website www.zielonepodkarpacie.pl devoted to the nature of the Podkarpackie region – description of forms of nature protection, environmental trails, mountain ranges, rivers, lakes, of flora and fauna, news from the environmental world,
- 2) The project "*Initiatives for a Green Podkarpacie*" (Inicjatywy dla Zielonego Podkarpacia), implemented in 2015-2017. The initiatives aim at ecological education, improvement of the natural environment, increasing ecological awareness and involving the community in actions for sustainable development on a local level. Among the aforementioned initiatives, particular mention should be made of:
- recovery of melliferous and extinct tree stand, along with reclamation of green areas with planting perennial flowers in the village administration office Łętownia and creating an educational base,
 - building a green corner for education and integration in Sędziszów Małopolski and a green class for children in Klęczany,
 - recreating the Władysław Szafer environmental trail in Rzeszów,
 - improving the infrastructure and promoting the environmental-educational trail in the Bór reserve near Głogów Małopolski,
 - creating a biodiversity garden at the schools in Dębica and Raławówka as an educational base for teenagers and the local community,
 - organising instruction workshops on building feeders, nesting boxes for swifts, little owls,

herpetological fences for local communities,

- marking out the environmental trail and constructing ornithological look-outs in the Gorajec village,
- constructing an educational trail within forest complexes in Budy Głogowskie,
- renovating and expanding an environmental trail in the school garden "Niezapominajka" in Głogów Małopolski
- creating a Green Control Point along the didactic trail "Białkówka".

3) The tasks taken under the project *Protection the Carpathian Forest Fauna Refuges - Migration Corridors* related to popularising the idea of migration corridors were implemented through organising:

- conferences (4),
- workshops (1),
- seminars (4),
- information meetings (4),
- environmental competitions for the children (3)

and issuing publications (7) and films addressed to different groups of recipients (2). Also, scenarios were prepared for classes devoted to the idea of migration corridors for primary, lower secondary and higher secondary students.

B.2 Have you taken complementary measures to those planned by the present Protocol? If yes, please, list them.

Under the "Carpathians Unite" project, a National Action Plan (NAP) was prepared, for the implementation of the Protocol in Poland, detailing the issues of landscape diversity protection (15 of actions within the Strategic Objective 3. The NAP "Preservation, Protection, Recreation and Sustainable Use of Landscapes in the Carpathians"), which constitutes added value to the Protocol (which lacks detailed records concerning landscapes). In addition, during the workshop part of the trainings for local governments entitled "Common Management in the Carpathian Area. Code of Good Practice", conducted under implementing the project "Carpathians Unite", on the basis of the text of the Protocol and the NAP project, training participants developed a number of proposals of local projects for the protection of landscapes of the Polish part of the Carpathians.

B.3 What have been the most successful aspects of implementation of the Protocol?

- cooperation with local governments of communes located within the range of application of the Protocol in Poland as part of implementing the "Carpathians Unite" project
- activities of the State Forests for the protection and sustainable use of biological and landscape diversity in the Carpathians

B.4 What have been the greatest difficulties in this implementation? Please tick your answers in the following list.

The table below reflects number of indications re. particular difficulties that had been identified by 20 different entities of different level.

Lack of political will and support	xxx
Limited public participation and stakeholder involvement	xxxxx
Lack of integration of the objectives of the Protocol into other sectors	xxx
Inadequate capacity to act, caused by institutional weakness	xxxxxx
Lack of transfer of technology and/or expertise	
Lack of adequate scientific research capacities to support all the objectives	x
Lack of public education and awareness at all levels	xxxxxxxx
Loss of biodiversity and its related goods and services not properly understood/documentated	xxxxxxxxxxxxxx
Lack of financial, human, technical resources	xxxxxxxxxxxxxx
Lack of economic incentive measures	xxxxxxxxxxxxxx
Lack of synergies at national and international levels	xxxxxxx
Lack of cooperation between involved stakeholders at local and national levels	xxxxx
Lack of effective partnerships	xxxxx
Lack of appropriate policies and laws	xxxxx
Lack of precise definitions of potential misunderstanding notions	xxx
Population/local communities pressure	xxxxxxxx
Lack of knowledge and practice ecosystem-based approaches to management	xxxxx
Others (please specify)	
<i>Special obstacle is lack of separate financial instrument, dedicated to support implementation of Protocol.</i>	

B.5 Which institutions in your country are the driving forces to implement the objectives of the Protocol? Are they in contact with similar institutions in your neighbouring countries?

The Ministry of the Environment, General Directorate for Environmental Protection, PGL State Forests, Marshal Offices of the region of the Carpathian region, regional directorates for environmental protection as well as national park directorates. These institutions maintain contacts with partners from neighbouring states.

B.6 Are the local authorities or other stakeholders (NGOs, private sector, ...) encouraged to contribute to the implementation of the Protocol in their objectives and activities? Have they undertaken activities or actions aiming at implement better and further the Protocol? If yes, in which particular field (degraded habitats, endangered species, water and river basins management, industry and energy, spatial planning, tourism, protected areas, communication, research, cooperation, information, ...)?

In areas relevant for the Protocol, a substantial commitment and interest can be noticed, of local governments and communities. During trainings for local governments conducted under the "Carpathians Unite" project involving local government representatives and employees of 62 commune offices in the Polish part of Carpathians, among the proposed projects (prepared during the workshop' part of these trainings) almost half (47%) was comprised of proposals of actions for the protection, maintenance, restoration and sustainable use of habitats in the Carpathians, restoring degraded habitats, protection and sustainable use of species of flora and fauna and protection of endangered species. 21% of the proposed projects concerned ensuring the ecological continuity and connectivity, among other things by shaping green infrastructure areas, as well as preventing building dispersal. On the other hand, as much as 26% of proposal of local projects concerned actions for landscape protection.

B.7 Is there a special unit/committee responsible for the consultation and mediation between all the stakeholders at national level?

Yes – The National Steering Committee of the Carpathian Convention, appointed by the Minister of the Environment, comprised of representatives of ministries and other central offices, region offices, local government, national parks and a NGOs, the objective of which is to plan and coordinate activities in the scope of implementing the Carpathian Convention and its protocols, including the Protocol on biological and landscape diversity. On average, Committee meetings take place once a year.

B.8 Do you have any other general comments or recommendations on the implementation of the Protocol?

Due to the fact that preserving the value of the natural environment, as well as shaping and maintaining spatial order are public tasks or own tasks of local self-government units, and the main beneficiaries of the implementation of the Convention provisions and protocols thereto should be the inhabitants of the Carpathian region – the Carpathian local self-

government units should be included in the implementation of the Protocol on similar terms as bodies, organisational units and institutions belonging to government administration. It all the more justified that without active participation of local governments, it is not possible to fully achieve the assumed objectives of Protocol implementation, e.g. effective protection and preservation of landscape diversity (Art. 1 of the Protocol), ensuring ecological connectivity (Art. 9 of the Protocol) and, first of all, strengthening the protection and sustainable management in areas located beyond the protected areas (Art. 15 of the Protocol).

The problem also lies with the poor knowledge about the Protocol outside a relatively small group of people/institutions directly involved in the issues related to the Carpathian Convention, especially when it comes to people living in the cities and villages in the Carpathian area.

Abbreviations:

GIOŚ – Chief Inspectorate of Environmental Protection
LKP – Forest Promotional Complex
LP – State Forests
PUL – forest management plan
RDLP – Regional Directorate of State Forests
RDOŚ – Regional Directorate for Environmental Protection
BdPN – Bieszczady National Park
BgPN – Babia Góra National Park
GPN – Gorce National Park
MPN – Magura National Park
PPN – Pieniny National Park (Polish)
TPN – Tatra National Park