

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

KYIV 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 the 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 realization of its objectives?

The Protocol on the Conservation and Sustainable Use of Biological and Landscape Diversity to the Framework Convention for the Protection and Sustainable Development of the Carpathians was ratified by the Law of Ukraine in 2009.

Adopted in 2007 before entering into force of the Protocol regulatory and legal acts on the protection and sustainable development of the Carpathians, such as the Strategy for the implementation of the Framework Convention on the Protection and Sustainable Development of the Carpathians and the Action plan for 2008-2020 to implement this Strategy, are still remaining actual for the conservation and sustainable use of biological and landscape diversity of Ukrainian Carpathians.

Strategy for the implementation of the Framework Convention on the Protection and Sustainable Development of the Carpathians was adopted by the Resolution of the Cabinet of Ministers of Ukraine of January 16, 2007, No. 11-r. Among the main tasks of the Strategy are:

- the conservation, sustainable use and restoration of biological and landscape diversity in the Carpathians, in particular the formation of the Carpathian ecological network in the framework of the national ecological network as the component of the pan-European ecological network;
- the development of measures on the biological and ecological safety of the Carpathians;
- the facilitation to the development of environmentally balanced policy in various sectors, including transport, taking into account the landscape and ecosystem characteristics of the environment;
- the conservation of biological and landscape diversity of areas, which are migratory paths for animals;
- enhanced international cooperation in the field of conservation of biological and landscape diversity;
- the improvement of economic mechanism and conceptual approaches to the sustainable use of natural resources and the conservation of biological and landscape diversity;
- the raising the level of environmental education and upbringing, including the increasing output of publications dedicated to the conservation and sustainable use of biological and landscape diversity of the Carpathians, *etc.*

The Action plan for the implementation of the Strategy for implementation of the Framework Convention on the Protection and Sustainable Development of the Carpathians for 2008-2020 contains concrete measures, deadlines and responsible executors. Among the envisaged measures are the protection, the conservation and the restoration of the Carpathian biological and landscape diversity, formation of a network of protected areas, including transboundary ones, *etc.*

Measures on biodiversity conservation, in particular on the implementation of the Protocol, are also implemented within the framework of national and local strategic and program documents in the field of environmental protection, primarily in the frame of the State Programme for Formation the National Ecological Network of Ukraine for 2000-2015 (the Law of Ukraine of 21.09.2000

No. 8989-III).

At the end of 2010, the basic principles (Strategy) of the state environmental policy for the period until 2020 were adopted by the Law of Ukraine of December 21, 2010, No. 2818-VI and in 2011 the Government approved the National Action Plan on Environmental Protection for 2011-2015 (the Resolution of the Cabinet of Ministers of Ukraine of May 25, 2011, No. 577). The Strategy includes a section on biodiversity that contains 7 strategic objectives consistent with the objectives of the Protocol and the Strategic Action Plan for the implementation of the Protocol and corresponds to the Strategic Plan for Biodiversity and the Aichi Biodiversity targets.

At present, the draft amendments to the basic principles (Strategy) of the state environmental policy for the period until 2020 and the draft National Action Plan on Environmental Protection till 2020 are prepared. The main directions of activity according to proposed amendments will focus on the issues of improving the conservation of biodiversity and habitats as well as the restoration of degraded ecosystems through the establishment of new protected areas and the formation of ecological networks. It is also envisaged to introduce measures for the valuation of biodiversity and ecosystem services, the introduction of the ecosystem approach to the use of natural resources, awareness raising and education.

In frame of the European integration processes, the Directive 2009/147/EC of the European Parliament and of the Council Directive of 30 November 2009 on the Conservation of wild birds and the Council Directive 92/43/EEC of 21 May 1992 on the Conservation of natural habitats and of wild fauna and flora are being integrated into Ukrainian legislation and will contribute at the conservation and sustainable use of biodiversity in Ukrainian Carpathians.

At the regional level, the Protocol is implemented within the framework of regional programs on environmental protection and the formation of the ecological network of Zakarpattia, Ivano-Frankivsk, Lviv and Chernivtsi oblasts and regional Action plans for the Strategy for the implementation of the Carpathian Convention.

General description of the main features (geography, biological and landscape diversity) of the Carpathian region of national territory.

The Ukrainian Carpathians account for only 10.3% of the total Carpathian Mountains. They stretch from northwest to southeast about 280 kilometres with an average width - 100 km. They occupy an area of 37 thousand km² or 3.5% of the territory of Ukraine. Average height of Ukrainian Carpathians - 1000 m. Six peaks are higher than 2000 meters above sea level and the highest among them - Hoverla - up to 2061 m. The Ukrainian Carpathians consist of elongated parallel ridges - external ridge, which include Beskydy, Gorgany, and Pokutsko-Bukovynian Carpathians, central or Verkhovynski and internal or Polonynsko-Chornohirski.

The climate within the Ukrainian Carpathians is transient, from moderately warm to continental.

Within the Ukrainian Carpathians, there are five vertical vegetative zones: foothills, lower and upper forest, subalpine and alpine, each of which is characterized by specific vegetation, grasslands of different fodder value.

The territory of Ukrainian Carpathians includes four oblasts: Lviv, Ivano-Frankivsk, Chernivtsi, and Zakarpattia oblasts with total area of 56.6 thousand km² (5 660.7 thousand hectares).

Mountain areas of the Ukrainian Carpathians occupy about 19.5 thousand square kilometres and make up 69.5% of the territory of Zakarpattia, 37.5% of Ivano-Frankivsk, 18.6% of Lviv and 15.8% of Chernivtsi oblasts.

The rivers of the Carpathian region of Ukraine belong to the three major river basins - the Vistula (through the upper Sana), the Dniester (right bank tributaries) and the Danube (networks of Tysa, Prut, and Seret) and flow through the territories of Lviv, Ivano-Frankivsk, Chernivtsi and Zakarpattia oblasts. The vast majority of the waterways of the Carpathians are part of the Dniester and Danube basin. In total there are three watercourses in the region of over 200 km long, 39 more than 50 km, and about 460 - more than 10 km. The small rivers and streams on the Carpathian slopes account for more than 10 thousand. The main Carpathian rivers - Tysa, Prut, Seret, and Dniester - collect their water from the territory of more than 30 thousand km².

Within the Ukrainian Carpathians, more than 435 species of vertebrate animals have been registered, including more than 80 species of mammals, 18 species of reptiles, 5 species of Salamander family (order *Urodela (Caudata)*) and 11 species of order *Anura* (among the amphibians there is one endemic species - Carpathian Triton), 53 species of *Cyclostomata* and fishes, 80 species of terrestrial and 65 species of freshwater molluscs (40 of them are mountainous, including 18 Carpathian endemic species). The insect fauna is the most abundant – over 20 thousand species.

In forest biotopes, there are viable populations of the Carpathian brown bear, lynx, wildcat, wolf, roe, fox, European pine marten, European hare, Carpathian squirrel, wild boar, European badger, and stoat.

The Carpathians is the area for nesting, wintering or stopover during seasonal migrations for up to 280 species of birds belonging to 16 orders (golden eagle, common chaffinch, blackbirds and song thrush, black stork, red mallard, lesser spotted eagle, Eurasian eagle-owl, great grey shrike, Ural owl, boreal owl, woodpeckers, common buzzard, booted eagle, common crane, etc.).

B. ACHIEVEMENTS AND FURTHER IMPLEMENTATION INFORMATION

B.1 The 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 basic documents defining the main tasks in the field of environmental protection, conservation of biological and landscape diversity and their integration into other sectoral policies at the national level are the laws of Ukraine «On environmental protection», «On the Nature Reserve Fund of Ukraine», «On ecological network of Ukraine», «On animal world», «On plant world», and «On the Red Data Book of Ukraine». The program and strategic documents that include the incorporation of biodiversity conservation in other sectoral policies are the laws of Ukraine «On the state programme for formation the national ecological network of Ukraine for 2000-2015» and «On the basic principles (Strategy) of the state environmental policy for the period until 2020».

At the regional level, relevant regional programs have been developed and implemented, including environmental protection, the formation of ecological networks and the development of the nature reserve fund.

The issues of biodiversity conservation and environmental protection are included in a number of laws of Ukraine (the Forest, Land and Water Codes of Ukraine, in the Law of Ukraine «On tourism», *etc.*) and cross-sectoral programs, in particular the Transport Strategy of Ukraine for the period up to 2020, the State target program Forests of Ukraine for 2010-2015, the State target program on village development of Ukraine for the period till 2015, the State target economic program on the development of fisheries for 2012-2016, the Concept of reforming and development of the forestry, the State target social program on overcoming and preventing poverty for the period by 2015.

Biodiversity issues are also included into new national strategic and sectoral, documents approved by the government, in particular into the Concept for combating land degradation and desertification (the Cabinet of Ministers Resolution of 22.10.2014 № 1024-r), the Conception of rural areas development (the Cabinet of Ministers Resolution of 23.09.2015 № 995-r), the State target economic program on development of motor roads of common use for 2013-2018 (the Cabinet of Ministers Decree of 11.07.2013 № 696), State program on the development of transboundary cooperation for 2016 – 2020 (the Cabinet of Ministers Decree of 23.08.2016 № 554), into draft of the Conception of State target program on development of the National transport network of Ukraine for the period 2016-2026.

The state Strategy of the regional development for the period up to 2020, approved by the Cabinet of Ministers of Ukraine in August 06, 2014, provides indicators for the process of its implementation, including «Specific weight of the area of the nature reserve fund to the area of the administrative-territorial unit». The territory of the nature reserve fund in 2021 should be 15% of the state's territory. In the Carpathian region this figures should be: in Ivano-Frankivsk oblast - 29%, in the Zakarpattia oblast - 28%, in Lviv oblast - 19.5%, in Chernivtsi oblast - 27% of the area. Into the system of monitoring and assessing the level of competitiveness of the regions, it is proposed to add to the index of regional competitiveness the percentage of territories and objects of the nature reserve fund.

It is expected that protective measures to prevent negative impacts on ecosystems, wild flora and fauna and their natural habitats, including on migration routes of wildlife species, will be incorporated into the Energy Strategy of Ukraine until 2035.

The Ukrainian legislation is being harmonized with the EU legislation, in particular, the Plan for the implementation of the Directive 2009/147/EU on the conservation of wild birds and Directive 92/43 / EU on the conservation of natural habitats and of wild flora and fauna, as amended by the Directives No. No. 97/62/EU, 2006/105/EU and Regulation (EU) No 1882/2003.

At the regional level, the implementation of biodiversity conservation has been taken into account in local program and strategic documents (regional development programs and sectoral programs for forest, water, and agriculture development, *etc.*).

The institutes of the National Academy of Agrarian Sciences of Ukraine work on identifying the priority directions of innovative support of the policy and strategy of conservation, restoration and sustainable use of the biological and landscape diversity of the Carpathians, in particular regarding ecologically safe nature conservation use of land; optimization of anthropogenic loads in agro-landscapes; adaptation of agro-ecosystems to the conditions of functioning of natural systems; conducting ecological-landscape monitoring.

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

As the Carpathian Red List of habitats is under the development, in Ukraine within its national territory, including in the Carpathian region, the most valuable areas are being identified from the point of view of biodiversity (including natural and semi-natural habitats, the territories where the species of plants and animals listed in the Red Data Book of Ukraine and international Red Lists, as well as plant communities listed in the Green Book of Ukraine, are growing and living,) and their protection and conservation is provided, including by creating territories and objects of a Nature Reserve Fund to ensure continuity of ecological network of Ukraine.

The network of protected areas in the Carpathian region consists of 1670 territories and objects of the Nature Reserve Fund, which protect the territory with an area of 657.2 thousand hectares, including 9 national natural parks, the natural reserve «Gorgany», the Carpathian biosphere reserve (data on 01.01.2017). In Ivano-Frankivsk oblast the network of protected areas consists of 517 protected territories and objects with an area of 218817.18 hectares, (15.71%); Zakarpattia oblast - 465 protected territories and objects with an area of 178841,22 hectares, (14,02%); in Lviv oblast - 357 protected territories and objects with an area of 155898.66 hectares, (7.14%); Chernivtsi oblast - 331 protected territories and objects with an area of 103598.45 hectares, (12.8%). The average reserve of protected areas in the Carpathian region is 12.42%. During 2011-2017, as a result of the creation of new and expansion of existing protected territories and objects, the number territories and objects of the Nature Reserve Fund in the Carpathian region increased on 37 units and the total protected area increased on 14.5 thousand hectares.

It has been provided the filling and maintaining of the State Cadastre of the Nature Reserve Fund, in the framework of which the inventory of natural complexes of territories and objects of the Nature Reserve Fund have been carried out (including Zakarpattia, Ivano-Frankivsk, Lviv, Chernivtsi oblasts), a unified geographical information system, database and an automated system for conducting the state inventory of territories and objects of the Nature Reserve Fund of Ukraine (“The State cadastre of territories and objects of the natural reserve fund of Ukraine”) have been established. The state cadastre of the Nature Reserve Fund, among other, contains information on the existing protected territories and objects, their names and brief characteristics, in particular on natural habitats subject to special protection in accordance with the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).

Work is on-going on the identification of the valuable habitats. At the 36th meeting of the Standing Committee of the Berne Convention (15-18.11.2016, Strasbourg, France) 271 valuable natural territories of Ukraine were included in the Emerald network of Europe. Information on the objects of the Emerald network in Ukraine, including the Carpathian region, is available under the link: <http://wab.discomap.eea.europa.eu/webappbuilder/apps/28/>.

The goals and objectives for conservation, restoration and sustainable use of natural and semi-natural habitats are reflected in the provisions of laws of Ukraine «On the ecological network of Ukraine», «On the Natural Reserve Fund of Ukraine», «On the animal world», «On the plant world», «On the Red Data Book of Ukraine» and the Regulation on the Green Book of Ukraine (the Green Book of Ukraine contains information on rare and endangered natural plant communities, as well as typical natural plant communities that are subject to protection; the List of such plant communities was approved by the order of Ministry of Ecology and Natural Resources of Ukraine of 16.10.2009 No. 545 and registered in the Ministry of Justice on 04.11.09 No. 1024/17040), etc.

The Law of Ukraine «On amendments to certain legislative acts of Ukraine on the protection of the animal world» was adopted on April 9, 2015 (No.322-VIII). In particular it prescribes for the self-government bodies to provide «the season of silence» in places of mass reproduction and breeding of animals in May - June. From April 1 to June 15 it is prohibited to carry out works and activities that generate an increased noise and anxiety (shooting, blasting, fireworks, sanitary felling, use of motorized small vehicles, rally and other vehicles competitions); strengthening the protection of habitats of animals in protected areas, the prohibition of the use of electrical appliances, loops, self-propelled, short-range guns for taking animals.

In order to implement European environmental norms on the protection of habitats of rare species of animals and plants, including against destruction of the habitat of the species of flora and fauna included in the Red Data Book of Ukraine, the Law of Ukraine of January 7, 2017 No. 1829-VIII amended the Code of Ukraine on administrative offenses and the laws of Ukraine «On the Nature Reserve Fund of Ukraine» and «On the Red Data Book of Ukraine».

In order to enhance the conservation of forest biocenosis as habitats for species of animals and plants, the Cabinet of Ministers of Ukraine of April 13, 2011, No. 399, introduced amendments to the Rules of cutting of the main use in the mountain forests of the Carpathians.

Measures are being taken for conservation, maintenance, restoration and sustainable usage of wetlands of international importance as a habitat for waterfowl birds, in particular in Zakarpattia oblast measures are being taken to conserve the wetland of international importance - «Lake Synevyr» with an area of 29.0 hectares (National natural park «Synevyr»). During 2011-2012, 12 wetlands with a total area of 12.2 thousand hectares, which are located in the Carpathian region (7 - in Zakarpattia oblast, 4 - in Ivano-Frankivsk, and 1 - in Lviv oblast) are included into the List of the wetlands of international importance by the Resolutions of the Cabinet of Ministers of Ukraine (No. 895 of 21.09.2011, No. 147 of 23.02.2011 and No. 818 of 24.10.2012).

Measures are also being taken to include two high mountain wetlands of the Chornohora and Svydovetsky mountains into the List of the wetlands of international importance (Zakarpattia oblast).

For the objects of the Nature Reserve Fund, within their territories, the measures for the conservation and maintenance of natural habitats are carried out, relevant programs and action plans have been developed and are being implemented, in particular for the conservation of high altitude habitats of active ridge sphagnum and sedge-sphagnum marshes.

Biodiversity conservation, ecological network formation and degradation of habitats are facilitated by the Government's Concept for combating land degradation and desertification (Resolution of the Cabinet of Ministers of Ukraine No. 1024-r of October 22, 2014) and the National Action Plan to combat land degradation and desertification (Resolution of the Cabinet of Ministers of Ukraine No. 271-r of March 30, 2016.).

The scientific institutions of the National Agrarian Academy of Sciences of Ukraine work on the issues of combating land degradation, the problems of the harmonization of agro-industrial production and natural landscapes in the Carpathian Region. In particular, the Institute of Agriculture of the Carpathian Region of NAAS has developed strategic approaches and mechanisms for solving the problem of degradation and rehabilitation of agricultural land in the Carpathian Region.

At the regional level, tasks and measures for the conservation, the maintenance, the restoration and sustainable use of natural and semi-natural habitats are carried out within the framework of local programs (subprograms) and schemes of the formation of ecological networks, approved by the

decisions of regional councils:

- Programs of perspective development of nature conservation and ecological network in the Zakarpattia oblast for 2006-2020 (from January 12, 2006, No. 695);
- Regional program of formation of the ecological network of the Lviv oblast for 2007-2015 (from 03.06.2007 № 340);
- Programs of environmental protection of Ivano–Frankivsk oblast (subprogram «Protection of nature reserve fund, formation of ecological network») (from 06.06.2011 № 161-6 / 2011 and from 25.12.2015, № 59-2 / 2015);
- Integrated Environmental Protection Program of the Chernivtsi oblast «Ecology» for 2016-2018 (from 10.03.2011 № 10-4 / 11 and from 15.03.2016 № 19-4 / 16).

In Zakarpattia oblast the decision of the regional council dated May 28, 2015 № 1263 approved the List of species of vascular plants and habitats that are subject to special protection in Zakarpattia oblast (the list contains 63 settlements and 231 species of vascular plants).

In the framework of the development of regional and local schemes for the formation of the ecological network, in accordance with the Methodological Recommendations (approved by the order of the Ministry of Environmental Protection of Ukraine dated November 13, 2009, No. 604), these schemes include renewable areas with recommendations for the implementation of priority measures for the restoration of habitats and ecosystems.

Since 2014, the Society for the protection of birds, with the participation and financial support of the Frankfurt Zoological Society, is implementing the project «Conservation of Carpathian virgin forests». The main goal is to protect 300,000 hectares of natural landscapes in the Carpathians as one of the most important pan-European ecological networks. National natural parks in the Ukrainian Carpathians should be increased by the addition of key virgin forests, ancient forests and other particularly valuable forests, in order to increase their protection against irreversible destruction.

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

The legislative basis for the protection and conservation of flora and fauna are the laws of Ukraine «On environmental protection», «On the Nature Reserve Fund of Ukraine», «On ecological network of Ukraine», «On animal world», «On plant world», and «On the Red Data Book of Ukraine», as well as international agreements, such as the Convention on biological diversity, 1979 Convention on the protection of wild flora and fauna and habitats in Europe», *etc.*, ratified by Verkhovna Rada (Parliament) of Ukraine.

Prior to the official approval of the Carpathian Red List of species of flora and fauna, within its national territory, including the territory of the Ukrainian Carpathians, in accordance with the Ukrainian legislation, species of flora and fauna that are listed in the Red Data Book of Ukraine and international Red lists and those species that should be protected in accordance with international treaties are priority species to the conservation. In 2009, the third edition of the Red Data Book of Ukraine was published. The Red Data Book of Ukraine is the basis for the

development and implementation of programs (action plans) aimed at protecting and reproducing rare and endangered species of animals and flora included in it.

The orders of the Ministry of Ecology and Natural Resources of Ukraine No. 312 and No. 313 of June 17, 2009 approved the List of species of plants and fungi, which are included in the Red Data Book of Ukraine (Plant world) (registered in the Ministry of Justice on July 13, 2009, under No. 625/16641) and the List of animal species included in the Red Data Book of Ukraine (Animal world) (registered in the Ministry of Justice on July 13, 2009 under No. 627/16643).

The scientific and organizational management of the Red Data Book of Ukraine is ensured by the National Commission on the Red Data Book (established by the Decree of the Cabinet of Ministers of Ukraine No. 97 of 26.06.2013.). The Commission also organizes and coordinates the activities of scientific institutions in matters related to the permanent monitoring of the status of populations of objects of the Red Data Book of Ukraine, develops measures for the conservation of species of flora and fauna, listed in the Red Data Book of Ukraine, and carries out control over their implementation, etc.

In order to strengthen the protection of the Red Data Book species, a number of normative legal acts has been adopted, in particular, the Law of Ukraine «On amendments to the Article 4 of the Law of Ukraine «On the Red Data Book of Ukraine» concerning strengthening the protection of rare species of plants and animals (No. 5072-VI of July 5, 2012), Resolution of the Cabinet of Ministers of Ukraine № 1030 of 7 November 2012 «On Amount of Compensation for Illegal Taking, Destruction or Damage of Fauna and Flora Species included in the Red Data Book of Ukraine as well as for Destruction or Worsening of their Natural Habitats» and the Order of the Ministry of Ecology and Natural Resources № 486 of 09.10.2012 «On Approving of the Procedure for State Records of Rare and Endangered Species of Fauna and Flora Listed in the Red Data Book of Ukraine» (registered with the Ministry of Justice of Ukraine on 05.12.2012 under № 2031/22343).

The Law of Ukraine № 323-VIII of 09.04.2015 amended the Laws of Ukraine «On the nature reserve fund of Ukraine», «On hunting economy and hunting», «On the Red Data Book of Ukraine», in particular, 13 species of birds hunting for which is prohibited by the Berne Convention have been excluded from the game species. The Law adds the requirements for the prohibition of the use of bears and wolves which are listed in Annex 2 to the Berne Convention for training of hunting dogs..

The Law of Ukraine «On amendments to certain legislative acts of Ukraine on the protection of the animal world» was adopted (from 09.04.2015 № 322-VIII). In particular it prescribe for the self-government bodies to provide «the season of silence» in places of mass reproduction and breeding of animals in May - June. From April 1 to June 15 it is prohibited to carry out works and activities that generate an increased noise and anxiety (shooting, blasting, fireworks, sanitary felling, use of motorized small vehicles, rally and other vehicles competitions); strengthening the protection of habitats of animals in protected areas, the prohibition of the use of electrical appliances, loops, self-propelled, short-range guns for taking animals (<http://zakon2.rada.gov.ua/laws/show/322-19/print1475648758112781>).

The Verkhovna Rada (Parliament) of Ukraine adopted as a basis the draft Law of Ukraine «On amendments to some legislative acts of Ukraine on the protection of primeval forests in accordance with the Framework Convention on the Protection and Sustainable Development of the Carpathians» (Resolution of the Verkhovna Rada (Parliament) No. 1821-VIII of 17.01.2017). The purpose of this draft law is to stop forest cuttings in virgin forests, introducing administrative responsibility for the destruction and damage of virgin forests.

The Ministry of Ecology and Natural Resources of Ukraine by order No. 557 on December 29, 2016, identified the need to establish and ensure the conservation of special protected places for rare species of plants and animals in national natural parks (http://www.menr.gov.ua/docs/normakty/2016/nakaz_557_29122016.pdf).

There is on-going work on the implementation of the Directive 2009/147 / EU of the European Parliament and of the Council from 30 November 2009 on the Conservation of Wild Birds and the Council Directive 92/43 / EEC from 21 May 1992 on the Conservation of Natural Habitats and Wild Flora and Fauna in the Ukrainian legislation.

In order to complete the recommendations No. 74 (1999), 82 (2000), 100 (2003), 115 (2005), 137 (2008) of the Standing Committee of the Convention on the Conservation of wild fauna and flora and natural habitats in Europe, article 4 of the Framework Convention on the Protection and Sustainable Development of the Carpathians and the enhancement of the protection of species listed in the Red Data Book of Ukraine, the Ministry of Ecology and Natural Resources established an interdepartmental working group on the Conservation of predatory animals (Order of the Ministry of Ecology and Natural Resources of Ukraine No. 304 of 07.08.2013).

The bison breeding centre in the National Nature Park «Vyzhnytskyi» and the centre of the conservation of a brown bear in the National Nature Park «Synevyr» have been established and have being maintained.

The state inventories of flora and fauna within based on work of scientific researchers who collect and analyse data on habitats of species of animals and plants, including those listed in the Red Data Book of Ukraine or protected under international agreements and the International Red Lists, etc facilitate the conservation of biodiversity.

A geographical information system related database is developed, which provides data on the plant and animal world of Ukraine (geographical distribution of species (groups of species), their size and condition, characteristics of their habitat, as well as other data necessary to ensure their conservation and sustainable use).

Hunting animals use is regulated by scientifically-based limits, which are annually approved by the Ministry of Agrarian Policy for the appropriate hunting season subject to agreement of the Ministry of Ecology and Natural Resources.

Within the framework of the project «Conservation of Carpathian virgin forests», implemented by the Ukrainian Society for the Protection of Birds, with the support of the German Environmental Protection Organization Frankfurt Zoological Society, recommendations were developed for environmental conservation measures for the capercaillie and blackcocks.

In April - June 2016 was registered the number of birds of the capercaillie and blackcocks on the territory of 9 wildlife protected areas of the Ukrainian Carpathians - 7 National Nature Parks and 2 reserves (the Carpathian Biosphere Reserve and the Natural Reserve «Gorgany»). The collected material was analysed and the number and distribution of each species in the surveyed area were determined. The list of threats found in the mating call places of the birds is given.

At the regional level, based on scientific research, lists of species of animals and plants that are subject to special protection on the territory of the region (so-called regional red lists) are being developed, according to which measures for their conservation are carried out.

In Zakarpattia oblast:

the List of species of animals with special protection in Zakarpattia oblast and those

included in the Red Data Book of Ukraine is adopted (decision of the Zakarpattia Regional Council № 424 of 02.03.2012);

the List of species of vascular plants and habitats (biotopes) that are to be specially protected in Zakarpattia oblast (the list contains 63 settlements - 231 species of vascular plants) is adopted (decision of Zakarpattia Regional Council № 1263 of May 28, 2015);

the Procedure for setting the limits for the special use of natural resources of local importance in Zakarpattia oblast is adopted (decision of Zakarpattia Regional Council №1262 of May 28, 2015);

the program of reproduction of salmon species of the Tisza river basin in Zakarpattia oblast is developed and implemented.

Additional information on the conservation of species of animals and plants in Zakarpattia oblast as of 2015 is contained in the environmental passport of the oblast by link: <http://www.menr.gov.ua/protection/protection1/zakarpatska>).

The Carpathian Biosphere Reserve developed the Research program for large predatory mammals for 2014-2018; the action plans for 2015-2016 are implemented to improve the conservation of some species of plant (erythronium dens-canis, gentiana laciniata, traunsteinera globosa) and animals (the Duke of Burgundy (*Hamearis lucina*), Eurasian pygmy owl, Eriogaster catax, Geoffroy's bats, blackcocks).

There are conducted in National Nature Park «Synevyr»: the study of virgin forest ecosystems, breeding and reproduction of rare endangered flora of the Ukrainian Carpathians, observation of the ethological and ecological characteristics of the brown bear in the rehabilitation centre, resource reproduction and study of salmon species in trout farms, study of the species composition and state of the bat populations.

The National Nature Park Uzhanskyi, based on the results of scientific research, has developed recommendations for the conservation of large predators, brown bear populations, bats, meadow gangs, improvement of *Syringa josikaea*, the conservation of valuable forests, and false-karst formations in the border zone.

In Ivan-Frankivsk oblast:

measures are carried out in accordance with the subprogram «Protection and rational use of natural plant and animal resources» of the Regional Program of Environmental Protection until 2015;

there are 106 species of plants and fungi and 118 species of animals under protection in the oblast;

plant and animal species to be protected in accordance with the Red Data Book of Ukraine, the Berne Convention, CITES, the European Red List, etc., are included into appropriate lists and these species are protected in the region.

Additional information on the conservation of species of animals and plants in Ivan-Frankivsk oblast as of 2015 is contained in the environmental passport of the oblast by link: <http://www.menr.gov.ua/protection/protection1/ivanofrankivska> .

The National Nature Park «**Hutsulshchyna**» identified endangered endemic, endangered and endangered species of plants, animals, natural habitats under special protection, monitoring and population surveys are being conducted, on the basis of which developed:

The conservation action plans for *Hericum coralloides* (Fr.) Gray, *Polyporus umbellatus*

(Pers.) Fr.; *Sparassis crispa*; *Catathelasma imperiale* (Fr.) Sing.;

The Programs for the renaturalization of berry yew tree, the conservation and the reproduction of pine cedar European, rare species of macromycetes, black storks (*Ciconia nigra*), capercaillies (*Tetrao urogallus*), blackcocks, etc. have been developed and are being implemented.

The environmental recommendations for conserving spotted salamanders (*Salamandra salamandra* Linnaeus, 1758), European minks (*Mustela lutreola* (Linnaeus, 1761)) have been developed.

Monitoring surveys are carried out for amphibians, reptiles, birds, mammals and invertebrates.

The National Nature Park «**Verkhovynskyi**» has developed plans for conservation of the Brown bear (*Ursus arctos*), three-toed woodpecker - *Picoides tridactylus* (Linnaeus, 1758), European lynx (*Lynx lynx L.*), Danube salmon (*Hucho hucho*), river otter (*Lutra lutra*), hazel grouse (*Bonasa bonasia*), Carpathian triton *Lissotriton montandoni* (Boulenger, 1880), a grouse (*Tetrao urogallus*, Linnaeus, 1758), a black grouse *Tetrao tetrix*, and recommendations for the conservation of 9 species of endangered plants.

Within the framework of the cross-border cooperation Hungary-Romania-Ukraine the Program «Open borders for bears in the Ukrainian and Romanian Carpathians» was implemented.

In the Carpathian national nature park, environmental measures are being implemented aimed at conservation and reproduction *in vitro* of rare species of plants (*Rhodiola rosea*, reviving lunar, small primrose, species of the gentian, the Carpathian and Alpine bells, antennarias, the alpine edelweiss, forest lily, leek, snowdrop, spring blossom, Gaifell's saffron).

In Lviv oblast:

the List of rare plant species that are included in the Red Data Book of Ukraine and are subject to the protection in Lviv oblast and List of rare plant species to be protected within Lviv oblast but not included in the Red Data Book of Ukraine are approved (decision of the Lviv Regional Council from June 13, 2007 No. 342);

the List of rare plant species that are included in the Red Data Book of Ukraine and are subject to the protection in Lviv oblast and List of rare plant species to be protected within Lviv oblast but not included in the Red Data Book of Ukraine are approved (decision of the Lviv Regional Council from June 15, 2015 No. 1370);

the draft Program of protection, reproduction and rational use of fauna of Lviv oblast is being developed;

plant and animal species to be protected in accordance with the Red Data Book of Ukraine, the Berne Convention, CITES, the European Red List, etc., are included into appropriate lists and these species are protected in the region.

Additional information on the conservation of species of animals and plants in Lviv oblast as of 2016 is contained in the environmental passport of the oblast by link: <http://www.menr.gov.ua/protection/protection1/lvivska>.

Within the framework of the Program of environmental monitoring of Lviv oblast for 2011-2014 and for the perspective until 2020, the research and assessment of the current state of the population were carried out and measures were taken to protect the capercaillie in Lviv oblast.

Posters about the species of animals and plants of Lviv oblast included in the Red Data Book of Ukraine are published and distributed among the educational institutions of the region, a scientific-information book «Rare and endangered species of Lviv oblast» was prepared.

The specialists from National Nature Park «Skolivski Beskydy» are monitoring rare species of plants and animals, take measures on in the frame of programs of the conservation and the distribution of fauna and flora, namely the reintroduction of European bison, the conservation and the restoration of bison populations, the conservation and increase of the population of brown bear, the conservation and the restoration plantations of berry yew-tree.

In Chernivtsi oblast:

the Lists of regional rare species of plants and animals are approved (the decision of Chernivtsi Regional Council of 07.06.2007 No. 145-13/07);

the scientific publication «Pages of the Red Data Book of Ukraine (flora), Chernivtsi oblast» was published (printed by Chernivtsi National University named after Y. Fedkovich);

plant and animal species to be protected in accordance with the Red Data Book of Ukraine, the Berne Convention, CITES, the European Red List, etc., are included into appropriate lists and these species are protected in the region.

Additional information on the conservation of species of animals and plants in Chernivtsi oblast as of 2016 is contained in the environmental passport of the oblast by link: <http://www.menr.gov.ua/protection/protection1/chernivetska>.

The National Nature Park «**Vyzhnytskyi**» has developed the measures for the conservation and the reproduction of bison, brown trout (*Salmo trutta*), Carpathian triton (*Triturus montandoni*), bear leek (*Allium ursinum L.*), stone pine (*Pinus cembra L.*).

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

The measures on the continuity and coherence of natural and semi-natural habitats was implemented in accordance with the laws of Ukraine «On the state programme for formation the national ecological network of Ukraine for 2000-2015 », «On the ecological network of Ukraine», «On the Nature Reserve Fund of Ukraine».

Within the framework of the preparation of the draft Consolidated scheme of the formation of the ecological network of Ukraine a scientific description of the Carpathian econet was prepared, the development of the Carpathian ecological network the has been substantiated, structural elements (key, connecting, buffer and recovery territories) have been listed and described, a draft scheme for the formation of the ecological network of the Carpathians, as part of the pan-European ecological network, has been also elaborated.

Measures are being taken to expand the ecological network area by increasing the areas of territories and objects of the Nature Reserve Fund, forests, wetlands, hayfields and pastures, coastal protective bands and water protection zones, etc. The development of the Carpathian

ecological network at the regional level is implemented in accordance with the regional programs for the formation of the ecological network of Zakarpattia, Ivano-Frankivsk, Lviv and Chernivtsi oblasts. To ensure the continuity of the ecological network of Ukraine and the conservation of biodiversity, work is on-going to design regional schemes for the formation of the ecological network.

The regional scheme for the formation of the ecological network of Zakarpattia oblast was approved (decision of the Lviv Regional Council of 10.07.2014 No. 1033) and 13 local (district) schemes for the formation of the ecological network were adopted in Zakarpattia oblast. The drafts of regional schemes for the formation of ecological networks in Ivano-Frankivsk, Lviv and Chernivtsi oblasts have been developed.

The scheme of the Turkivskiyi ecological corridor (for the migration of bison, brown bear, lynx, wild boar and other wild animals between the protected areas of Poland and the National Nature Park «Skolivski Beskydy» (Ukraine)) was approved in Ukraine by the decision of the Turkivska District Council of 26.02.2010 and the scheme of the Bukovina ecological corridor between the National Nature Park «Vyzhnytskyi» (Ukraine) and the National Park «Vanatori-Neamt» (Romania) for the restoration of natural ecosystem connections (ecological corridors) for populations of bison, bears and lynx in Ukraine and Romania was also adopted.

The adoption of the Resolution of the Cabinet of Ministers of Ukraine No. 1196 of 16.12.2015 “On approval of the procedure for the inclusion of the objects and territories to the List of the objects and territories of the ecological network” is of great importance for ensuring the functioning of the ecological network, its effective management, determination and granting of legal status to the elements of the ecological network and ensuring the designated use of land, which are part of the ecological network. Included in the lists of territory and objects of the ecological network will be entered into the State Land Cadastre, urban planning and land management documentation.

At the 36th meeting of the Standing Committee of the Berne Convention which was held from 15 to 18 November, 2016 in Strasbourg, France, 271 valuable natural territory of Ukraine have been included in the «Emerald Network» of Europe (information on the Emerald Network in Ukraine, including the Carpathian Region can be obtained from the following link: <http://wab.discomap.eea.europa.eu/webappbuilder/apps/28/>).

Within the framework of the project “Conservation of Carpathian virgin forests”, which is implemented by the Ukrainian Society for the Protection of Birds with the participation and financial support of the Frankfurt Zoological Society, investigation of territories in which virgin forests grow, identification of these valuable natural forests and their description were carried out. Simultaneously with the identification of virgin forests, this area was studied on the existence of valuable flora and fauna. Based on the results of the research, a package of documents was prepared on the expediency of expanding the territories of national natural parks in Zakarpattia, Ivano-Frankivsk and Chernivtsi oblasts.

Work is under way on the expansion of the territories of the objects of the Nature Reserve Fund , in particular regarding the agreement with the parties concerned on the inclusion of their territories in the national parks:

Carpathian National Nature Park – by 253 001 hectares

National Nature Park «Verkhovynskyi» - by 11 675 hectares;

National Nature Park «Vyzhnytskyi» - by 8 358,9 hectares;

National Nature Park «Hutsulshchyna” - by 2 690,4 hectares.

The draft decrees of the President of Ukraine on the expansion of the territory of the national natural parks «Synevyr», «Zacharovanyi kray» and «Uzhanskyi» by 23 254,3 hectares are being prepared.

The Carpathian Biosphere Reserve initiated and concluded the Memorandum on cooperation with the Zakarpattia Regional Department of Forestry and Hunting for ensuring forest management on the basis of sustainable development and the Declarations on cooperation with local government bodies of 17 settlements for the determination of the territories of sustainable development under programme UNESCO «The Man and the Biosphere» within territories of settlements located in the zone of the Biosphere Reserve.

The implementation of the project «Support to protected areas in Ukraine» contributes to the enhancement of the effectiveness of the management of protected areas and the conservation of their biodiversity (the project is funded by the German bank KfW and the Ministry of Ecology and Natural Resources of Ukraine, implemented by an international consortium consisting of the Danube-Carpathian Program of the World Nature Fund in Ukraine, The Ukrainian Bird Conservation Society, the Frankfurt Zoological Society and the German consulting company ANT GROUP AG). The project covers 8 protected areas in Ukraine including the Natural Reserve «Gorgany», the Carpathian Biosphere Reserve and the National Nature Park «Synevyr», etc.

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

As part of the maintenance of the State Plant Cadastre the Institute of Botany of the National Academy of Sciences of Ukraine collected, analysed and entered data on the invasive plant species into the special databases, prepared the preliminary "Black list" of alien invasive species for further study and recommendations on controlling the spread of the most threatening invasive species for flora in Ukraine, including the Carpathian region.

Upon the request of the Ministry of Natural Resources of Ukraine, the Ukrainian Scientific Research Institute for Environmental Problems implemented the project "Assessment of the problem of invasive alien species (plants and animals) in Ukraine and development of recommendations on the legal and organizational basis for regulation and establishing of a control system for the introduction and dissemination of such organisms in the territory of Ukraine in accordance with the requirements of the Convention on Biological Diversity and the decisions of its governing bodies" (2015).

As a result of the project, the following outcomes have been obtained:

- the mechanisms of biological invasions were studied, methods for controlling the spread of invasive species and recommendations for the prevention of such invasions were proposed;
- the spread of invasive alien species in Ukraine and their impact on biodiversity were studied;
- environmental factors that contribute to the spread and consolidation of invasive alien species were identified;

Lists of invasive alien species in Ukraine (animals and plants) have been compiled.

A number of invasive alien species increases. In recent years the following species have been found only in the Carpathian region: a raccoon dog, a jackal, an American mink. There is a probability of appearing five more species of mammals: Mediterranean horseshoe bat (*Rhinolophus euryale*), Alcathe bat (*Myotis alcathoe*), greater noctule bat (*Nyctalus lasiopterus*), Kuhl's pipistrelle (*Pipistrellus kuhlii*), the raccoon (*Procyon lotor*). Non-native fish species were also found: Channel catfish (*Ictalurus punctatus*), brown bullhead (*Ameiurus nebulosus*), grass carp (*Ctenopharyngodon idella*), silver carp (*Hypophthalmichthys molitrix*), bighead carp (*Hypophthalmichthys nobilis*), sunfish (*Lepomis* species), rainbow trout (*Oncorhynchus mykiss*), Chinese sleeper (*Perccottus glenii*).

In 2011-2013 the research on invasive alien species in Ukraine, mainly plants, have been continued. The species composition of alien vascular plants, taxonomic and typological structure of anthropophytes were investigated in Ukraine in general, and in some administrative regions. The characteristics of this component of the flora were studied in the main types of its anthropic transformation. In accordance with the global and European IAS strategies the draft National IAS Strategy was proposed. On the results of recent research of scientists in Ukraine there are 830 species of plants, which are considered as alien for the country. About 85 adventive species of plants are the plants with high invasive potential. Information on invasive alien species of plants was provided to DAISIE (Delivering Alien Invasive Species in Europe) project. Recommendations on forecasting, prevention, limitation or control of phytinvasions were developed and published in the National Report on the state of the environment in Ukraine in 2011 (published in 2012, available at: <http://www.menr.gov.ua/Media/files/NacDopovid2011.pdf>).

A number of publications in mass media, including Internet, draw the attention of broad public to invasive alien species problems, especially, in case of the most dangerous species. For instance, the one of the articles (<http://zik.ua/ua/news/2012/06/26/355743> (2012)) provides a detailed description of *Heracleum Sosnowskyi*, its threat to people and control measures for Lviv oblast. It is envisaged to elaborate a local programme to control invasive alien species.

The scientists of the State Natural History Museum of the National Academy of Sciences of Ukraine assessed the influence of invasive plant species on the natural and semi-natural types of habitats in Zakarpattia oblast (http://bioweb.lnu.edu.ua/studia/pdf/201483/2014_8_3_356.pdf).

The List of invasive plant species in Zakarpattia oblast was compiled and approved by the decision of the Zakarpattia Regional Council No. 721 of 23.03.2017.

The National Nature Park «Vyzhnytskyi» has developed measures to prevent the introduction of some invasive alien species (*Impatiens glandulifera*, *Impatiens parviflora*, *Robinia pseudoacacia*, *Galinosoga parviflora*). These measures include the inspection and identification of new localities of invasive species and finding trends of their dissemination.

The National Nature Park «Hutsulshchyna» implements measures for identifying invasive species and determining their degree of threat, introduces measures to prevent the introduction of new invasive species into forest ecosystems in the reserve zone and the zone of regulated recreation. It is planned to remove some invasive species, in particular *Quercus rubra L.* and *Robinia pseudoacacia L.*

The invasive species are mentioned or described in the environmental passports of the administrative regions (oblasts) of Ukraine (a peculiar ecological profile of a particular region), which are issued annually. The relevant information in the environmental passports of Zakarpattia, Lviv and Chernivtsi oblasts can be found on the website of the Ministry of Ecology and Natural Resources of Ukraine under the link: <http://www.menr.gov.ua/protection/protection1>.

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

Pursuant to Articles 7 and 14 of the Protocol

In the Carpathian region of Ukraine, the network of nature conservation territories as of 01.01.2017 consists of 1,670 territories and objects of the Nature Reserve Fund, which conserve the territory with the area of 657,2 thousand hectares, including 9 national natural parks, the Nature reserve "Gorgany" and the Carpathian Biosphere reserve. In Ivano-Frankivsk oblast - 517 units, 218817.18 hectares, (15.71%); Zakarpattia - 465 units, 178841,22 hectares, (14,02%); Lviv - 357 units, 155898.66 hectares, (7.14%); Chernivtsi - 331 units, 103598.45 hectares, (12.8%). Information on the territories and objects of the Nature Reserve Fund, including the Carpathians, posted on the website of the Ministry of Ecology and Natural Resources of Ukraine by the link <http://pzf.menr.gov.ua/>.

Cooperation between protected areas of the Carpathians since 2014 is carried out within the framework of the international project – «Conservation of the Carpathian virgin forests». The project is being implemented by the Ukrainian Society for the Protection of Birds in partnership and with the financial support of Frankfurt Zoological Society (Germany). The project involves 9 national natural parks located in the area of growth of virgin and old-growth forests: Carpathian, Verkhovyna, Cheremoskyi, Vyzhnytskyi, Skolivski Beskydy, Hutsulshchyna, Synevyr, Uzhanskyi, Zacharovanyi kray. The project aims to protect 300,000 hectares of natural landscapes in the Carpathians as one of the most important for Pan-European ecological networks. National natural parks in the Ukrainian Carpathians should be increased by the addition of main virgin and old-growth forests and other especially valuable forests in order to increase their protection against irreversible destruction.

Since 2016, the project «Support to protected areas in Ukraine», aimed at improving the efficiency of the management of protected areas and the conservation of their natural wealth. The project is implemented by the Ministry of Ecology and Natural Resources of Ukraine in cooperation with the World Wildlife Fund in Ukraine, the Ukrainian Bird Conservation Society, the Frankfurt Zoological Society and the German company ANT GROUPAG). The aim of the project is to develop a system of the management of protected areas with the use of European countries' experience, to promote the efficiency of the management of protected areas and conservation of their biodiversity. In the first stage, two protected areas were identified for the project implementation in the Carpathians (Nature Reserve «Gorgany» and the Carpathian Biosphere Reserve). During the implementation of the project, other objects of the Nature Reserve fund will be involved.

The Carpathian biosphere reserve signed a Memorandum of understanding and cooperation on nature conservation with the administration of the Duna-Hipoli National Park (Budapest, Hungary) in 2016. Measures are being taken to establish a Ukrainian-Romanian transboundary biosphere reserve in the Marmorose Mountains. According to this, the Carpathian biosphere reserve organized and held the International round table «Problems of the creation and the operation of transboundary biosphere reserves on the example of the designed Ukrainian-Romanian transboundary biosphere reserve in Marmorose Mountains» and the International scientific and practical conference «Ecological, socio-economic, historical and cultural aspects of development the territory of the Marmorose».

The National Nature Park «Zacharovanyi kray» is a participant of various projects aimed at the conservation of protected areas, in particular the project «Sustainable management of territories adjacent to the UNESCO World Heritage site "Beech virgin forests of the Carpathians" (Ukraine -

Slovak Republic).

The National Nature Park «Synevyr» (Ukraine) has signed cooperation agreements with the Hortobágy National Park (Hungary), the Bershad National Park (Poland), and the Krkonoše National Park (Czech Republic).

The National Nature Park «Uzhanskyi» cooperates with other protected areas within the framework of:

activities of the International biosphere reserve «Eastern Carpathians» (framework Agreement of 15.11.2013, the Coordinating Council and the management plan of the International biosphere reserve «Eastern Carpathians»; the Trilateral (Ukrainian-Polish-Slovak) Memorandum on the creation of the «Starry Park»);

the Program of international cooperation with Poloniny National Park (Poland);

the partnership Agreement between National Nature Park Uzhanskyi and the State Protection of the Nature of the Slovak Republic within the framework of the cross-border cooperation program financed by the Norwegian financial mechanism and the state budget of the Slovak Republic;

the project «Environmental protection as opportunities for regional development», which is implemented with the support of the Norwegian financial mechanism.

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

Pursuant to Article 17 of the Protocol

Measures to conserve biodiversity, including the implementation of the Protocol is carried out within the framework of and local strategic and program documents in the field of environmental protection:

the State Programme for Formation the National Ecological Network of Ukraine for 2000-2015 (2000).

On the basic principles (Strategy) of the state environmental policy for the period until 2020 (Law of Ukraine -VI of December 21, 2010 No. 2818);

National Environmental Protection Action Plan 2011-2015 (Resolution of the Cabinet of Ministers of Ukraine No. 577 from 25.05.2011);

Strategies for implementation of the framework Convention on the protection and sustainable development of the Carpathians (Resolution of the Cabinet of Ministers of Ukraine of January 16, 2007, No. 11-r);

The Action Plan for the Strategy for implementation of the framework Convention on the protection and sustainable development of the Carpathians for 2008-2020.

At the regional level, tasks and measures for the conservation, maintenance, restoration and sustainable use of natural and semi-natural habitats are carried out within the framework of local programs for the formation of the ecological network approved by the decisions of Regional Councils:

Programs of perspective development of Nature Reserve Fund and ecological network in

Zakarpattia oblast for 2006-2020 (of January 12, 2006, No. 695);

Regional program of formation of the ecological network of Lviv oblast for 2007-2015 (of 3.06.2007 № 340);

Programs of environmental protection of Ivano-Frankivsk oblast (subprogram «Protection of nature reserve fund, formation of ecological network») (of 06.06.2011 № 161-6/ 2011 and of 25.12.2015, № 59-2/2015);

The Integrated Environmental Protection Program of Chernivtsi oblast «Ecology» for 2016-2018 (of March 25, 2011 № 10-4/11 and of March 15, 2015 № 19-4 / 16).

To ensure continuity of the ecological network of Ukraine, work is on-going on the development of regional schemes of the formation of the ecological network.

The regional (oblast) schemes of the ecological network, local (districts, settlements) schemes of the ecological network determine at the regional and local level the priorities and conceptual foundations for the formation, conservation and non-exhaustive use of the ecological network, the formation of the spatial location of its structural elements, the development of the system of territories and objects of Natural reserve fund. These schemes of ecological networks are approved by the appropriate level of councils, with the consent of the regional state administrations and the participation of interested authorities in the field of environmental protection, geocadastr, urban development, forestry, agriculture, water management, etc.

The regional scheme for the formation of the ecological network of Zakarpattia oblast was approved (decision of the Lviv Regional Council of 10.07.2014 No. 1033) and 13 local (district) schemes for the formation of the ecological network in Zakarpattia oblast were adopted. The drafts of regional schemes for the formation of ecological networks in Ivano-Frankivsk, Lviv and Chernivtsi oblasts have been developed.

The Strategy for the development of the natural reserve object for ten years, as well as the activities for the protection, reproduction and use of natural complexes and objects that are planned to be implemented within five years, are determined in accordance with the Plan of organization of the territory of the Nature Reserve Fund of Ukraine. In order to bring the projects of the organization of the territory closer to the requirements and standards of management plans of protected areas, the Ministry of Ecology and Natural Resources of Ukraine amended by its Order No. 273 of August 21, 2014 the Regulations on the organization of territories of the institutions of the Nature Reserve Fund of Ukraine, approved by the Order of the Ministry of Ecology and Natural Resources of Ukraine of 06.07.2005 No. 245, (registered in the Ministry of Justice of Ukraine on July 29, 2005 under No. 829/11109).

Plans for the organization of the territory for 12 institutions of the Natural reserve fund are being implemented.

During the period from 2015 to 2017, the projects of organization of the territory were prepared for 2 institutions of the Nature Reserve Fund in the Carpathian Region, which includes measures for the conservation of certain species of flora and fauna and their habitats.

The National Nature Park «Synevyr» has developed a management plan for the period 2010-2025, which identifies 6 long-term goals, 16 strategic objectives, among which are the restoration and maintenance in a stable natural state of meadow ecosystems, which are degraded due to the weakening of haymaking and grazing, increasing the conservation of rare plant communities, species of plants and animals and their habitats; improvement of monitoring of natural complexes and objects of flora and fauna, establishing of the Centre of ecological education on the basis of National Nature Park «Synevyr», etc.

Within the framework of the project «Conservation of Carpathian virgin forests», the drafts of Management Plans have been developed for parks participating in the project.

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

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

The Decree of the Cabinet of Ministers of Ukraine No. 554 of 23.08.2016 «On approval of the state program for the development of transboundary cooperation for 2016-2020» provides for the establishment and maintenance of functioning of Ukrainian sections of transboundary biosphere reserves, wetlands of international importance, objects of the world natural and cultural heritage, and Responsible executors are also identified: Ministry of Natural Resources, Ministry of Economic Development, Ministry of Foreign Affairs, Ministry of Culture, and Chernivtsi, Ivano-Frankivsk, Transcarpathian and Lviv oblast state administrations).

On May 14, 2014, a joint declaration of understanding was signed between the Ministry of Ecology and Natural Resources of Ukraine, the Federal Ministry of the environment, nature conservation, construction and safety of reactors of the Federal Republic of Germany and the Ministry of environment of the Slovak Republic on cooperation in the protection and management of a common World Heritage object «The Virgin Beech Forests of the Carpathians and Ancient Beech Forests of Germany».

The Resolution of the Cabinet of Ministers of Ukraine No. 819-r of 09.10.2014 approved a plan of measures for the sustainable development and improvement of mountain settlements of the Ukrainian part of the Ukrainian-Slovak-German natural UNESCO heritage site «The Virgin Beech Forests of the Carpathians and Ancient Beech Forests of Germany».

Measures are being taken to establish a Ukrainian-Romanian transboundary biosphere reserve in the Maramorose Mountains. In order to develop cross-border cooperation in the Carpathian Region, international meetings, round tables, scientific and practical conferences on the problem of the establishing and operation of transboundary biosphere reserves are held periodically using as the example the establishment of Ukrainian-Romanian transboundary biosphere reserve in the Maramorose Mountains.

In frame of the Programme UNESCO “the Man and the Biosphere”, a certificate for the inclusion of the Ukrainian part of natural reserve «Roztochya» with an area of 74416.0 hectares into the global network of reserves was issued on June 29, 2011. The biosphere reserve «Roztochya» consists of natural reserve «Roztochya» (2085.5 hectares), Yavoriv national nature park (7078.6 hectares), regional landscape park «Ravske Roztochya» (19103.0 hectares), ornithological reserve «Yanivsky herons» (16 hectares), reserve natural object “Nemiroff “ (276 hectares). The joint Ukrainian-Polish nomination for the establishing of a transboundary Ukrainian-Polish biosphere reserve «Roztochya» was also followed.

During the period from 2015 to 2017 the coordination of the work of biosphere reserves within the framework of the UNESCO Program “The Man and the Biosphere” and the UNESCO World Heritage Site «The Virgin Beech Forests of the Carpathians and Ancient Beech Forests of Germany» was carried out, in particular:

3 sessions of the working group of the sector of Natural Sciences and Natural Heritage of the National commission of Ukraine for UNESCO affairs were held; participants considered the implementation of the Convention on the Protection of the world cultural and natural

heritage (expansion of the World Heritage Site «The Virgin Beech Forests of the Carpathians and Ancient Beech Forests of Germany»), the fulfilment of the government's resolutions to conserve the virgin forests of Carpathians) and the UNESCO Program “The Man and the Biosphere” (development of a network of biosphere reserves);

inter-ministerial meeting on the protection of the Ukrainian part of the UNESCO World Heritage «The primeval beech forests of the Carpathians and ancient beech forests of Germany» was held and participants considered the fulfilment of the resolutions of the Cabinet of Ministers of Ukraine № 1619-r of 23.12.2009 «On approval of the plan of conservation and development of Ukrainian natural object “Beech virgin forests of the Carpathians» and № 819-r of 10.09.2014 «On approval of a plan for the sustainable development and improvement of mountain settlements of Ukrainian part of Ukrainian-Slovak-German UNESCO World Heritage Site «The Virgin Beech Forests of the Carpathians and Ancient Beech Forests of Germany».

On January 27, 2016 senior representatives of UNESCO from 11 European countries, including Ukraine, agreed the Nomination Dossier “Expanding world heritage “Virgin beech forests of the Carpathians and other regions of Europe». In early October 2016 expert of the IUCN visited Ukrainian national parks «Zacharovanyi kray», «Synevyr» and «Podolski Tovtry», nature reserves «Gorgany» and «Roztochya» to evaluate virgin beech forests and estimate the possibility of expansion of the UNESCO World Heritage Site «The Virgin Beech Forests of the Carpathians and Ancient Beech Forests of Germany».

The cooperation is being carried out in the border areas within the framework of the trilateral biosphere reserve «Eastern Carpathians» (Bershad National Park, landscape parks Tsisna-Vetlin's and Syan Valley (Poland), National Park Poloniny (Slovakia), National Nature Park Uzhanskyi and regional landscape park Nadsyansky (Ukraine): in particular meetings of the Coordinating Council are organised, the framework plan of the International Biosphere Reserve "Eastern Carpathians" is being implemented, the participation in international projects, including the project «Nature conservation as an opportunity for regional development», is provided, international conferences are organized and held and so on.

Taking into account the borderline location of Bukovina, the possibility of organizing transboundary protected sites is being studied - the bilateral interstate natural Ukrainian-Romanian reserve on the basis of the National Nature Park “Cheremoskyi” (Chernivtsi oblast, Ukraine), the neighbouring landscape reserve «Chyvchino-Grinyavskyi» (Ivano-Frankivsk oblast, Ukraine) and the some territories of the national park «Rodna» (Romania).

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

The laws of Ukraine «On the animal world», «On plant world», «On the Red Data Book of Ukraine», «On the nature reserve fund of Ukraine», «On the ecological network of Ukraine» contain the provisions regarding the monitoring of objects of animal and plant world, species recorded to the Red Data Book of Ukraine and the territories and objects of the Nature Reserve Fund and the ecological network.

Before the approval of the Carpathian Red Data List of habitats and species, the main monitoring surveys are carried out by staff of the nature conservation objects for species of animals and plants, especially those included in the Red Data Book of Ukraine, international red lists and

protected in accordance with international treaties. The results of field research are summarized in the annual Chronicles of the nature reserves and national parks in the sections «Fauna», «Flora and plant world», «Scientific polygons» and «Conservation of plants and animals species included in international lists in effect for Ukraine». According to the results of field research, the databases are created and mapping of the species range is carried out.

In particular, national nature Park “Uzhanskyi” in cooperation with leading scientific institutions of Ukraine (the Institute of ecology of Carpathians of the National Academy of Sciences of Ukraine, M.G. Khology Institute of Botany of the National Academy of Sciences of Ukraine, I.I. Schmalhausen Zoology Institute of the National Academy of Sciences of Ukraine, State natural history museum of the National Academy of Sciences of Ukraine (Lviv), faculty of biology of the Uzhgorod national University, an educational research centre «Institute of biology and medicine» of Taras Shevchenko National University of Kyiv) during 2015-2016 years were carrying out systematic observations of three permanent botanical plots, eight permanent forest plots, four routes account for amphibians and reptiles, and seven nests of white storks. The monitoring of populations of rare species of plants, winter accounting of fauna and representatives of some species of birds (owls, pigeons, predatory and grouse) had being carried out too.

On the territory of the National Nature Park «Hutsulshchyna» in cooperation with the Ukrainian P. Pasternak Scientific Research Institute of mountain forestry the program of the monitoring of forests in Kosiv regions have being conducted, which is an integral part of the forest monitoring system of the western region of Ukraine and Europe.

National Nature Park “Synevyr” closely cooperates with the Carpathian Biosphere Reserve, the National Nature Park “Uzhanskyi”, the National Nature Park «Zacharovanyi kray» and other environmental organizations in the Carpathian region, as well as with State enterprises "Mizhgirske forestry" and "Khustske forestry". All the mentioned institutions constantly exchange environmental information and carry out activities in support of compatible system of the monitoring and joint information system.

In the framework of conducting the State inventories of flora and fauna, a GIS related database has been developed, which includes data on species of animals and plants in Ukraine, including those in the Carpathians. The filling of the database, in particular, is carried out according to certain priority directions – species requiring protection (the Red Data Book of Ukraine, international Red lists, lists of environmental conventions), game species, and invasive alien species. The databases of the state inventories of species of flora and fauna have been adapted to the Unified information and analytical system of environmental monitoring of Ukraine.

Some monitoring studies are carried out through international assistance or within the framework of international programs under which the monitoring programs for the Swallowtail (*Papilio machaon* L.), Common Stag Beetle (*Lucanus cervus* L.), Lesser White-Fronted Goose (*Anser erythropus*), White Stork (*Ciconia ciconia*), Forest Lilies (*Lilium martagon* L.) were implemented.

In accordance with the Law of Ukraine «On environmental protection» and relevant state programs in Ukraine there is a state environmental monitoring system that ensures observation of the state of the environment and the level of its pollution. At present, 8 entities of the monitoring system perform the functions and tasks of monitoring and information provision in the state monitoring system: Ministry of Ecology and Natural Resources, Ministry of Emergencies, Ministry of Health Protection, Ministry of Agrarian Policy and Food, Ministry of Regional Development, Construction and Housing, the State Forestry Agency, the State Water Agency, and The State Service of Ukraine for Geodesy, Cartography and Cadastre.

Monitoring of biodiversity, due to limited budget funding, is carried out only for species representing commercial interest (trees, fish, hunting fauna). In particular, forestry and hunting enterprises conduct monitoring of forest vegetation in all regions of the country, assess biomass and its damage by biotic and abiotic factors, and also record hunting fauna.

At the regional level, monitoring is carried out according to the regional monitoring program, in particular in Zakarpattia oblast under the programs of environmental monitoring for 2014-2018 (approved by the Resolution of the Regional Council on October 31, 2014 No. 1081), was established the online version of the geographical information system of ecological monitoring, that consists of three modules «Monitoring of surface waters», «Nature Reserve Fund» and «Biotopes».

Objective 10 – Measures of coordination of scientific research:

Pursuant to Articles 19 and 20 of the Protocol

Scientific activity in the institutions of the NRF is carried out in accordance with the Law of Ukraine «On the Nature Reserve Fund of Ukraine», as well as in accordance with the Regulations on scientific and technical activity of natural and biosphere reserves and national natural parks of Ukraine, approved by the Order of the Ministry of Ecology and Natural Resources of Ukraine No. 414 of October 29, 2015, and registered in the Ministry of Justice on November 18, 2015, under No. 1444/27889 and within the framework of the implementation of the Program of the Chronicle of nature for reserves and national natural parks, which was approved by the joint order of the Ministry of Ecology and Natural Resources and the National Academy of Sciences of Ukraine №465 / 430 of 25.11.2002.

Scientific research work on the territories of the institutions of the Nature Reserve Fund is carried out with the aim of studying natural processes, ensuring constant monitoring of their changes, environmental forecasting, developing scientific bases of protection, reproduction and use of natural resources and especially valuable objects, to ensure the conservation, protection and reproduction of rare and endangered species of animals and plants.

Additionally the institutions of the Nature Reserve Fund carry out scientific research studies in the territories of nature reserves, protected areas and other territories and objects of the Nature Reserve Fund in the region where special scientific units are not created and record primary cadastral data on territories and objects of the Nature Reserve Fund.

The directions of scientific work in the territories of institutions of the Nature Reserve Fund are determined taking into account international programs, programs and plans approved by the National Academy of Sciences of Ukraine and the Ministry of Ecology and Natural Resources of Ukraine, which coordinate scientific research in the territories of the institutions of the Nature Reserve Fund.

Regulations on scientific and technical activities of natural and biosphere reserves and national natural parks of Ukraine determine the main directions for organizing the activities of scientific departments and scientific and technical council of the institution, the procedure for conducting the Chronicle of Nature and the interaction of nature reserves and national natural parks with other scientific organizations and specialists in matters on carrying out scientific research work in nature-protected areas.

The main form of the synthesis of the results of scientific research and observations of the state

and changes in natural complexes, made in natural reserves, biosphere reserves and national natural parks, is their Chronicles of Nature, the materials of which are used to assess the state of the environment, the development of measures for the protection and effective use of natural resources and environmental security.

Within the framework of the Program of the Chronicle of Nature, the institutions of the Nature Reserve Fund carry out annually research work on the conservation status, biology and inventory of flora and fauna, vegetation, inanimate objects of nature: soils, hydrological and geological objects, and conduct phenological research, meteorological observation, etc.

During the 2015-2016 years, 22 volumes of the Chronicles of Nature were prepared in the institutions of the Nature Reserve Fund of Carpathian Region, a number of scientific recommendations were issued on the implementation of environmental activities, action plans were developed on the conservation of rare species of flora and fauna, and the establishment of new territories and objects of the Nature Reserve Fund, and environmental protection measures are implemented constantly.

In the Carpathian region the Program of scientific research of the National Academy of Agrarian Sciences of Ukraine for 2016 - 2020 «Scientific basis of highly efficient use of agricultural resources potential of the Carpathian Region» is implemented. The Institute of regional studies of the National Academy of Sciences of Ukraine prepared the assessment of sustainable nature usage in mountainous Carpathian Region of Ukraine and a scientific research note «Sustainable environmental management in the Carpathian Region of Ukraine: challenges and ways to overcome».

The Ministry of Ecology and Natural Resources on the basis of programmatic and strategic documents coordinates and plans the implementation of scientific research aimed at study and conservation of biodiversity, the population of species of animals and plants through the formation and approval of environmental protection action plans.

At the request of the Ministry of Ecology and Natural Resources of Ukraine, scientific institutions carried out the following scientific research studies:

regional review of the state of the environment of the Carpathians, geographical, hydrographic and climatic aspects of the Ukrainian part of the Carpathians, the evaluation of the state of the environment of the Carpathians and economic development of the region, the identification of the main indicators of anthropogenic impact on the environment of the Carpathian region;

the preparation of scientific substantiation of measures for the formation of Carpathian econet; the development of spatial model of the Ukrainian Carpathian ecological network, a scientific description of the ecological network and its structural elements, the determination the structure of the Carpathian ecological network (at the national and regional levels);

the identification and mapping of important ecocorridors, which are the migratory ways of brown bear in the Carpathian Region (in Chernivtsi, Lviv and Ivano-Frankivsk oblasts), the observation of bears' territories, the identification of areas of individual stay and dens, the development of an appropriate electronic database, the development and the implementation of measures on conservation of brown bear, including informational and educational ones;

the certification of subpopulations and development of a plan for resettlement of European bison in Ukraine, in particular in the Carpathian region, based on an assessment of the current state, forage base and optimal number of subpopulations (the development and the implementation of measures for its conservation, including informational and

educational);

scientific, expert, financial and economic substantiation and the development of priority measures for the conservation and reproduction of virgin beech forests of the Carpathians, which are included in the World Natural Heritage, in order to establish the principles and approaches that must be taken to maintain the sustainability and stability of virgin forest ecosystems and identify priority measures for the conservation of the virgin beech forests of the Carpathians;

the maintenance of the state cadastre of flora, the state cadastre of fauna, the state cadastre of territories and objects of the Nature Reserve Fund of Ukraine, and the Red Data Book of Ukraine (which included the Carpathian region).

At the local level, the coordination and planning of scientific researches aimed at the study and the conservation of biodiversity and some populations of species of animals and plants is carried out on the basis of regional programs through the formulation and the approval of environmental protection plans.

The institutions of the Nature Reserve Fund, in close cooperation with each other and scientific institutions, determine the priorities of joint actions, and coordinate scientific research on the conservation and sustainable use of the Carpathian biological and landscape diversity.

In particular, National Nature Park “Uzhanskyi” in cooperation with leading scientific institutions of Ukraine (the Institute of ecology of Carpathians of the National Academy of Sciences of Ukraine, M.G. Khology Institute of Botany of the National Academy of Sciences of Ukraine, I.I. Schmalhausen Zoology Institute of the National Academy of Sciences of Ukraine, State natural history museum of the National Academy of Sciences of Ukraine (Lviv), faculty of biology of the Uzhgorod national University, an educational research centre «Institute of biology and medicine» of Taras Shevchenko National University of Kyiv) conducted studies and observations of hydrobionts (invertebrates and vertebrates), beaver settlements, conducted the inventory of mycobiota, investigated the diversity of biotopes of waterlogged ecosystems, monitor amphibians and reptiles, and early spring ephemeroidea, white stork and other species of birds (owls, pigeons, predatory and grouse).

Objective 13 – Other measures of international cooperation:

Pursuant to Article 7 of the Protocol

The National Nature Park «Verkhovynskyi», «Frankfurt Zoological & Österreichische Bundesforste AG», and Ukrainian Bird Conservation Society have implemented environmental protection measures with the support of the WWF Danube-Carpathian program under the project «Open borders for bears in the Romanian and Ukrainian Carpathians» and the project «Support for responsible forest management for sustainable development» for improving the state of the brown bear (*Ursus arctos*) population in the Ukrainian Carpathians.

Lviv Regional State Administration and VIER PFOTEN International («Four Laps International») (Austria) signed a memorandum on the construction of an animal shelter for keeping brown bears on the territory of the region.

The National Nature Park «Hutsulshchyna» participated in the implementation of projects aimed at the restoration, conservation and breeding of Hutsul horses:

the project of the International Charity Foundation «Heifer Project International» with

polish partners of the PAUCI project;

the project «Creation of the Polish-Ukrainian Centre for breeding and promotion of hutsul horses» within the framework of the transboundary cooperation program Poland-Belarus-Ukraine (2007-2013);

the Program of the conservation of the gene pool of Hutsul breed of horses within the framework of the Ukrainian Program for the conservation of the Gene Fond of the main agricultural animals of Ukraine for the period up to 2015.

The National Nature Park «Zacharovanyi kray» participated in the implementation of the international project FOR SOC: Forests for Society - Forests without Barriers, which was implemented under the program Transboundary Cooperation of the Norwegian financial mechanism for 2009-2014. The project is aimed at establishing a cross-border partnership to support and promote the development of tourism (especially forest tourism), along with increased multifunctional forestry capabilities for forest social functions and the provision of services to forest visitors and tourists, including the younger generation and people with special needs. Co-financing of measures for the arrangement of some ecological-cognitive routes was provided by the project «Conservation of Carpathian virgin forests».

Concluded agreement between the National Nature Park «Skolivski Beskydy» (Ukraine), the Bieszczady National Park (Poland) and the Bavarian Forest National Park (Germany) improved significantly the coordination of the implementation of appropriate management measures in protected areas.

In June 2011, UNESCO decided to include the Biosphere Reserve «Roztochya» (Ukraine) into the UNESCO World List of Biosphere Reserves. The Polish side was invited to resume work on the creation of its part of the future transboundary Ukrainian-Polish biosphere reserve in the Roztochya region in accordance with the previous agreements between the leaders of the Lviv oblast of Ukraine and the Lublin province of Poland.

In 2007, the transboundary Ukrainian-Slovak natural object «The virgin beech forests of the Carpathians» was included in the World Heritage List by the decision of the 31st session of the UNESCO World Heritage Committee. From Ukrainian side the Ukrainian-Slovak natural object «The virgin beech forests of the Carpathians» included the most valuable parts of the Carpathian Biosphere Reserve and National Nature Park «Uzhanskyi». During the 35th session in June 2011, the UNESCO World Heritage Committee decided to expand the territory of the «The virgin beech forests of the Carpathians» through the inclusion of the German part in its composition and the change the name of the object to «The virgin beech forests of the Carpathians and ancient beech forests of Germany». In accordance with the decision of the UNESCO World Heritage Committee (document 35 COM 8B.13), together with Slovakia, Germany and other European countries, a study was conducted of the potential expansion of the Ukrainian-Slovak-German nomination «The virgin beech forests of the Carpathians and ancient beech forests of Germany» by adding old beeches forests of other biogeographic regions of Europe in order to create a complete serial transnational nomination and to ensure the conservation of these unique forest ecosystems. The prepared materials are submitted to the UNESCO World Heritage Centre. From Ukraine it is additionally suggested to include beech forests of national natural parks «Synevyr», «Zacharovanyi kray», and «Podilski Tovtry» and nature reserves «Gorgany» and «Roztochya».

In order to reduce anthropogenic impact on natural ecosystems, the project «Implementation of environmental protection principles of agro-culture in Kosivshchyna for the sustainable development of the region», supported by the British Council in Ukraine, is being implemented. The project envisages the cultivation of medicinal plants and berries, the cultivation of Christmas trees, decorative plants, the deep processing of plant and animal production on the place,

restoration and development of artistic crafts, which will significantly reduce the biomass extraction from natural ecosystems, including and endangered species, enhance the conservation and restoration of biodiversity, reduce of unemployment, and improve the quality of life of highlanders.

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

Pursuant to Article 24 of the Protocol

In order to disseminate knowledge and increase public awareness the information about the Carpathian Convention and the activity of the Coordinating Council on the implementation of the Carpathian Convention is posted on the website of the Ministry of Ecology and Natural Resources of Ukraine. The Protocol on the Conservation and Sustainable use of biological and landscape diversity to the Carpathian Convention and the Strategic action plan for the implementation of the Protocol can be found on the website of the Ministry of Ecology and Natural Resources following the references: <http://menr.gov.ua/protection/protection6/vykonannya/ramkova/910-normatyvno-pravovi-akty> and <http://menr.gov.ua/protection/protection6/vykonannya/ramkova/909-tretia-narada-konferentsii-storin-karpatskoi-konventsii>.

At the regional level, the information on measures to implement the provisions of the Carpathian Convention and the Protocol are disseminated through web resources, the Aarhus Information Centres, the mass media, etc.

The one of the main tasks of institutions of the Nature Reserve Fund is the dissemination of environmental knowledge. All nature reserves and national parks of the Carpathian Region are constantly conducting environmental education events in accordance with the annual plans and within the allocated funding. For the purpose of fulfilling tasks on education, information and public awareness special environmental education units are created in the institutions of the Nature Reserve Fund. Staff of these units consists of 2-3 specialists on ecological education, other specialists of institutions (scientists, technical personal, and management) are additionally involved in this activity. Ecological actions, festivals, exhibitions, lessons, lectures, conversations, round tables, and meetings are regularly held within the framework of environmental education and public awareness activities. Ecological-education centres, museums or museum rooms and ecological-educational trails are created to improve the efficiency of environmental education and public awareness. Additional direction of the activity is the publication of ecological literature, books, booklets, newspapers and magazines. The institutions highlight constantly issues on nature conservation in local and national mass media, Internet sites and social networks.

As average during a year, each institution of the Nature Reserve Fund conducts 8 large-scale environmental education events, takes part or organizes 1 festival, 2 exhibitions, 36 lessons, 20 lectures, more than 150 conversations, 6 round tables, 2 ecological-educational trails.

In order to improve the qualifications of employees in the institutions of the Nature Reserve Fund the a number of seminars and trainings were organized and conducted in 2015-2017:

2 seminars on modern approaches for creating new and expanding existing territories and objects of the Nature Reserve Fund for employees of departments of ecology and natural resources of Regional State Administrations;

a scientific and practical seminar «Conservation and reproduction of natural ecosystems in natural reserves and natural reserve zones of institutions of the Nature Reserve Fund»;

training «Organizational directions of ecological education in the institutions of the Nature Reserve Fund» for employees of the institutions of the Nature Reserve Fund of Ukraine

(January 19-25, 2015, conducted with the assistance of the Ukrainian public organization «Association of protected areas of Ukraine» and the support of the project «ClimatEast: conservation and sustainable use of peatlands»);

5 workshops on the conservation of flora and fauna and habitats for about 200 employees of the institutions of the Nature Reserve Fund and scientists;

the seminar «Civil society partnership for the development of the Emerald network and network NATURA 2000» (initiated and conducted by representative office of the WWF in Ukraine);

XXI and XXII International tourism exhibitions UITT;

Round table «Cooperation between the institutions of the nature reserve fund and the mass media. Environmental protection propaganda - the current state, problems and prospects» and Ukrainian scientific and practical conference «Ecological network of Ukraine in the context of the introduction of environmental land use: local level» (April 26 - 28, 2016; conducted within the International Environmental Forum «Environment for Ukraine – 2016»);

a round table «The virgin and ancient forests of the Carpathian: conservation of nature treasures» (December 7, 2016; conducted by representative office of WWF Danube-Carpathian Program in Ukraine in partnership with the Michael Zukkov Foundation (Germany).

Within the framework of the project «Conservation of Carpathian virgin forests» a wide PR-campaign is being carried out to support national natural parks, their expansion and conservation of the unique nature of the Ukrainian Carpathians; as well as the draft law No. 4480 on conservation of virgin forests is being lobbied with the participation of parliamentarians, famous cultural figures, representatives of central governmental bodies, NGOs, etc.

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

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

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

Lack of political will and support	X
Limited public participation and stakeholder involvement	
Lack of integration of the objectives of the Protocol into other sectors	
Inadequate capacity to act, caused by institutional weakness	X
Lack of transfer of technology and/or expertise	X
Lack of adequate scientific research capacities to support all the objectives	X

Lack of public education and awareness at all levels	
Loss of biodiversity and its related goods and services not properly understood/documentated	X
Lack of financial, human, technical resources	X
Lack of economic incentive measures	X
Lack of synergies at national and international levels	
Lack of cooperation between involved stakeholders at local and national levels	
Lack of effective partnerships	X
Lack of appropriate policies and laws	
Lack of precise definitions of potential misunderstanding notions	
Population/local communities pressure	
Lack of knowledge and practice ecosystem-based approaches to management	X
Others (please specify)	
<i>Possible comments and details</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?

Ministry of Ecology and Natural Resources of Ukraine;

Departments of Ecology and Natural Resources of Zakarpattia, Ivano-Frankivsk, Lviv and Chernivtsi Regional State Administrations;

Institutions of the nature reserve fund of Carpathian region;

Institute of Ecology of Carpathians of the National Academy of Sciences of Ukraine;

Institute of Botany of the National Academy of Sciences of Ukraine;

Institute of Zoology of the National Academy of Sciences of Ukraine;

Uzhgorod National University;

Institute of Agriculture of Carpathian region NAASU;

Ukrainian Research Institute for Mountain Forestry.

Contacts with similar institutions in neighbouring countries are very limited and weak.

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, ...)?

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

At the national level, the Coordinating Council for the implementation of the provisions of the Framework Convention on the Protection and sustainable development of the Carpathians (the Decree of the Ministry of Environmental Protection of December 31, 2006 No. 535) was established. The Coordination Council consists of representatives from central and local executive authorities, scientific and public organizations.

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