

Annual report for the year 2022

State: Ukraine

Name of the area: Carpathian Biosphere Reserve

Year and number of years since the award or renewal of the European Diploma for Protected Areas:

2012, 10 years (renewed in 2022)

Central authority concerned:

Name: Ministry of Environmental Protection and Natural Resources of Ukraine

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Authority responsible for its management:

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1. **Conditions:** List here all conditions which were attached to the award or the renewal of the European Diploma. Explain either how the conditions have been totally complied with or detail the progress in complying with the conditions. Please also indicate any unresolved difficulties that you have encountered.

No conditions were attached to the award of the European Diploma

2. **Recommendations:** List here all recommendations which were attached to the award or the renewal of the European Diploma. Explain either how the recommendations have been totally complied with or detail the progress in complying with the recommendations. Please also indicate any unresolved difficulties that you have encountered.

1. continue efforts to provide the Carpathian Biosphere Reserve with more appropriate funding and to raise more additional funds from external sources;

Funding of the Carpathian Biosphere Reserve (CBR) is accomplished by means of the State Budget of Ukraine according to the current Legislation. At the same time, costs from local budgets, charity funds, institutions, organizations and from individual citizens or other sources are not forbidden by the Law, and can also be involved. In recent years, there has been a tendency towards an annual increase in the CBR funding from the state budget. However, as a result of the armed aggression of the Russian Federation in 2022, there was a certain decrease in funding, as well as restrictions on spendings for certain needs. In 2022 we got 76 million UAH from the state budget. A significant part in funding during last years was caused by the allocation of special funds for the land tax payment which were to be made by the Reserve into the budgets of the territorial communities in the area of CBR's activity. A total of 27 million UAH has been allocated in 2022. Part of this money is used for implementation of the projects that are important for both the CBR and local communities.

In 2016, the implementation of the Ukrainian-German project "Support to Nature Protected Areas in Ukraine" (SNPA project, 2016-2022) with a total budget of 14 million euro was launched. The main objective of the project is to improve the management and effectiveness of the selected protected areas in Ukraine (the Carpathian Biosphere Reserve is one of them), as well as to increase or maintain a high level of perception of such territories by local communities. In 2022, due to the war, the project suspended its activities, but it will be fully resumed after the military aggression is over. Instead, the duration of the project was extended for the next 3 years.

Instead, in 2022, the Frankfurt Zoological Society, which previously cooperated with the CBR within the framework of the SNPA project, provided significant assistance to the institution. In particular, the reserve's current needs in oil and fuel, car inspections, insurance, stationery goods, building materials, field equipment and gear, etc. were covered by them.

2. accelerate liaison with the authorities of Romania so as to complete the process of establishing a transfrontier Biosphere Reserve within the next two to three years;

An important objective for the Carpathian Biosphere Reserve is to establish a transboundary biosphere reserve (TBR) in the Maramures Mountains together with the Romanian partner – the Maramures Mountains Nature Park. This activity is envisaged by "The strategy of the Carpathian Convention implementation" adopted by the decision of the Cabinet of Ministers of Ukraine No. 11-p on January 16, 2007.

In connection with the war, the planned events in the current year were not implemented.

3. pay more attention to the elaboration and implementation of clear strategies and actions plans for the development of co-ordinated green activities around the Carpathian Biosphere Reserve, working in close co-operation with the local stakeholders and in line with the presidential guidance;

The Coordination council operates at the Carpathian Biosphere Reserve. According to the Regulations about the Coordination council, it meets for discussing major interaction aspects of the protected area with communities, cooperation possibilities and mitigation of the conflicts of interests. The council, in addition to a wide representation of the reserve's employees, includes representatives of the local authorities, mayors of towns and villages, directors of the state forestry enterprises, major entrepreneurs, and representatives of wide public, NGOs, educators and activists. In 2022, 1 meeting of the Coordination Council took place. At this meeting, important issues of socio-economic development of the region were considered, as well as the ecological situation in the context of development programs, plans for the future and the mechanisms for improving cooperation between the CBR administration and stakeholders.

In parallel to this activity, the Carpathian Biosphere Reserve's representatives regularly visit community meetings of the towns and villages within the reserve's scope of activity, and also meet the initiative groups and NGOs. As well a great number of ecoeducation activities were organized at schools and kindergartens within the Carpathian Biosphere Reserve's scope of activity. The reserve actively disseminates ecological knowledge and information about green economy, sustainable development, balanced nature resource use and alternative energy sources.

4. provide the Council of Europe with adequate and detailed figures, information and data on the legislation concerning the wolf (*Canis lupus*) in Ukraine and the enforcement of that legislation in the country, especially with regards to Article 6 of the Bern Convention; the State Party should be urged to report on this issue to the Standing Committee of the Bern Convention at its next meeting, and encouraged to strengthen its efforts on reducing the poaching activities in and around the Diploma-holding area;

Wolf population number in the territory of the biosphere reserve is determined based on inventory (census), which is conducted in the beginning of winter by tracking the animals simultaneously throughout the reserve. The number of wolves ranged from 16 to 44 individuals in the reserve's area during last 5 years (min. in 2021, max. in 2018), which corresponds to a population density of 0.3-1.2 individuals per 1000 hectares. It is likely that these data are somewhat higher due to the large mobility of this predator (there is a possibility that the same individual is recorded several times in different parts of the reserve). In addition, during a year all visual observations of the wolves or their tracks are recorded. During the past 5 years, the annual number of registered observations of the wolves ranged from 94 in 2022 to 265 in 2018. The obtained data are analyzed and mapped. Recommendations on the regulation of number for the wolves' population and opposing poaching in the area of the reserve are also developed.

5. devote priority efforts to the monitoring and conservation of the European mink and to the control of the population of the American mink within the Carpathian Biosphere Reserve;

In the Carpathian Biosphere Reserve only European mink has been noticed. The state of its population is monitored. For the past five years from 0 to 9 observations are registered annually in the Chornohora and Keveliv field divisions of the CBR (min. in 2020, max. in 2016). During the reporting year, the European mink was not observed in the territory of the reserve.

American mink has never been registered on the territory of the reserve.

6. follow up the implementation of the conclusions and recommendations made in the reports on inventory and monitoring, and on the challenges and solutions for the management of the Carpathian Biosphere Reserve, published in 2008 and 2011, giving the Carpathian Biosphere Reserve the capacity to undertake these;

In 2019, preparation and approval by the Ministry of the new Management Plan for the Carpathian Biosphere Reserve for the next 10-year period was accomplished. In 2020, the active phase of the implementation the 10-year development strategy and the 5-year action plan has begun. Also in 2020, a new forest management project for the territory of the reserve was approved, the materials of which contains some qualitative and quantitative characteristics of each of the forest sites.

In January 2022, by the Decree of the President of Ukraine, the territory of the reserve was expanded by 8,381.6 ha, and currently it is 66,417.4 ha. Most of the newly added territories are covered by the primeval and oldgrowth forest. In addition, as part of this expansion process, it was transmitted over 9,000 hectares of natural beech and spruce forests within its territory under the direct management of the CBR administration - the ones which were previously subordinated to state-owned forestry companies. Currently, the process of transferring new territories under the management of the CBR administration is ongoing.

7. strengthen co-operation with the local socio-economic stakeholders, including the forest and the tourism sectors, and develop specific awareness pilot activities targeted on them; these activities should address the issue of climate change, and promote local adaptation measures to global warming, including alternative socio-economic measures, such as schemes for green tourism, carbon sequestration and payment for ecosystem services.

Around the massifs of the Carpathian Biosphere Reserve, which have significant legislative limitations as for the use of natural resources, a transition zone that is deprived of these restrictions has been formed. This is the territory that serves as a pilot area for the implementation of various socio-economic projects that are consistent with the concept of sustainable development. The administration of the reserve, in close cooperation with local communities and key stakeholders, develops and implements a strategy for implementing this concept.

In the recent years the cooperation between the CBR and the local communities had reached a new, better level. It was agreed that part of the costs to be received by the communities from the CBR as a land tax, will be used to address the issues that are relevant to both local population and the reserve. These are mostly infrastructural projects (repair of mountain roads, construction of new bridges, etc.) and the projects aimed at improving the awareness of the local population on the CBR's activities.

For the full implementation of the strategy, the Coordinating Council of the Reserve, which unites both local authorities and local self-government bodies, as well as key business stakeholders of the region, is a very important instrument. (See also the information on the Recommendation No. 3 attached)

The CBR is contributing significant efforts to preserve the diversity of domestic animals and plants in the region, in particular by promoting them. An example of such activity is continuation of cooperation project on water buffalo grazing in one of the CBR's field divisions - the Narcissi Valley. Today, about 15 water buffaloes are grazed there, 4 of which are owned by the CBR. The reserve plans to increase its own herd to 20 individuals.

The reserve also helps to harmonize the relationship between people and large carnivorous mammals. CBR plans to continue providing local shepherds with electric fences using the funds from international projects.

3. Site Management: List here any changes to the European Diploma holding site management, in relation to both terrestrial and aquatic environments (as appropriate), and in relation to staff and finances, since the last annual report was submitted to the Council of Europe. Please also indicate any unresolved difficulties that you have encountered.

There were no changes in the management of the institution neither in recent years nor in 2022 in particular. The logistical support of the ranger service is one of the key priorities of the reserve's administration, which is very crucial due to its clustered structure. As per today, a great support is provided by the SNPA project. Management problems are also observed in certain types of ecosystems. The most threatened ones are meadow ecosystems, as well as wetlands. One of such problems is the forest succession in the territory of the Narcissi Valley, where semi-natural flood plains, which can also be treated as wetlands, are present. During last year, the traditional nature management measures (haymaking and willows cutting) have been carried out in "The Narcissi Valley" massif to maintain meadow plants communities and conservation of *Narcissus angustifolius* population. Activities aimed for the hydrological balance restoration have been held in this protected massif. The situation had been disturbed here before the area became protected. 9 hydrological constructions (flood-gates) were maintained on drainage channels (1 of them was overhauled (replaced) in 2022). Also this year, water supply to new territories with a total area of several tens of hectares was ensured.

4. Boundaries: Give details of any changes to the boundaries of the European Diploma holding site since the last annual report was submitted to the Council of Europe. If there are any changes, please attach an appropriate map to this report. Please also indicate any unresolved difficulties that you have encountered.

In January 2022, by the Decree of the President of Ukraine, the territory of the reserve was expanded by 8,381.6 ha, and currently it is 66,417.4 ha. Most of the newly added territories are covered by the primeval and old-growth forest. In addition, as part of this expansion process, it was transmitted over 9,000 hectares of natural beech and spruce forests within its territory under the direct management of the CBR administration - the ones which were previously subordinated to state-owned forestry companies. Currently, the process of transferring new territories under the management of the CBR administration is ongoing.

A map of the CBR territory is attached to the report (Annex 1), and can also be viewed at the following link: http://cbr.nature.org.ua/jpg/CBR_CoE.jpg

5. Other information:

CBR actively disseminates information about the European Diploma during all meetings in its presentations, in all the reports and promotion booklets about the reserve. The European Diploma logo is used in presentations and in information materials, on the reserve's website.

In 2022 the Committee of Ministers of the Council of Europe renewed the European Diploma for Protected Areas awarded to the Carpathian Biosphere Reserve until 30 September 2027.

Military actions in the framework of armed aggression of the Russian Federation take place at a great distance from the CBR and do not directly affect its territory.

On August 5-9, CBR representatives took part in a study tour for the students of the University of Sustainable Development (Eberswalde, Germany), which this year was held in Cozia National Park (Romania) because of the war. It was attended by about 90 students from different countries. One of the topics of this event was related to the biosphere reserves management in the Carpathian region on the example of the Carpathian Biosphere Reserve. Also, as part of the tour, an international round table dedicated to the 15th anniversary of the creation of the UNESCO World Heritage site was held.

On November 3, 2022, the administration of the Carpathian Biosphere Reserve organized a round table meeting on the occasion of celebrating the International Day of Biosphere Reserves with the participation of representatives of authorities and local self-government, territorial communities and the CBR team.

In April and September, by the order of the Ministry of Environment, the representatives of the CBR participated in 2 meetings of the Joint Management Committee (JMC) of the UNESCO World Heritage Property "Ancient and Primeval Beech Forests of the Carpathians and Other Regions of Europe", and also during the given year the reserve participated in several international seminars dedicated to the management of the UNESCO World Heritage Property and its buffer zone.

6. Natural heritage (general abiotic description: geomorphology, geology and hydrogeology, habitats, flora, fauna, landscape) – State of conservation

The CBR is located on the southern macroslopes of the main watershed of the Ukrainian part of the Eastern Carpathians. The relief of its highland part was formed during the last ice age. The geological basis is formed mainly by sedimentary rocks (Carpathian flysch), although metamorphic and igneous rocks are also present. The main landscapes are forests and alpine meadows. The main habitats include pure beech, mixed and spruce forests, alpine and subalpine meadows with large areas of crooked woodland. In general, no significant changes in the state of preservation of both landscapes and major habitats under the influence of anthropogenic and other factors were detected.

6.1. Environment: changes or deterioration in the environment, of natural or anthropic origin, accidental or permanent, actual or anticipated

Not identified

6.2. Flora and vegetation: changes in the plant population and in the vegetational cover; presumed causes

There is a constant increase in the upper forest line due to climate change. There was also an increase in the area of *Salix* sp. shrubs in the floodplain meadow ecosystems of the Narcissi Valley, which leads to a decrease in *Narcissus angustifolius* population number.

6.3. Fauna: changes in the sedentary or migratory populations; congregating, egg-laying and breeding grounds

No significant changes were identified. There is an active expansion of the beaver in mountainous regions, where it was not previously observed.

7. Cultural heritage and socio-economic context

7.1. Cultural heritage

The territory of the CBR is characterized by a rich cultural and historical heritage. To study the problems of its preservation in 2021, the reserve organized and held the International Conference "Natural Resource and Ethnic Cultural Transboundary Potential of the Hutsul Region in Ukraine and Romania: Problems of Preservation and Sustainable Development". The "bryndzia" sheep cheese museum dedicated to the preservation of local traditions of nature management has been opened in the vicinity of the Carpathian BR. Work on designing of new ecological and educational centres dedicated to cultural heritage has started directly at the reserve.

7.1.1. Changes concerning cultural heritage

No changes.

7.2. Socio-economic context

In 2021, Ukraine has elaborated a national program for the development of tourist and recreational infrastructure for protected areas of Ukraine. The CBR will be one of the pilot areas for its implementation. In connection with the war, the period of its implementation will be changed.

7.2.1. Changes concerning the socio-economic context

No changes.

8. Education and scientific interest

8.1. Visitors – Information policy

Within the framework of the SNPA project, a program to optimize tourist and recreational activities on the territory of the CBR is being developed, which provides for the creation of new hiking and cycling routes, digitization of materials for visitors, updating the website, training guides, etc.

8.1.1. Arrangements for receiving and informing the public (building, booklets, maps, cards, etc.)

New expositions for the existing visitor centres are created and updated, thus increasing their interactivity. In 2022, the reserve's team kept on updating information on the CBR's new website and a number of materials for visitors have been published there.

8.1.2. Frequentation by visitors and behavior (number, distribution in time and space)

This year, visitation to the territory of the CBR in connection with the war decreased by three times (less than 10,000 people); around 30% of them visited the Narcissus Valley in May during the flowering period, and the rest were summer hikers, mainly in the mountains of the Chornohora and Svydovets massifs of the reserve.

8.1.3. Special visits (distinguished persons, groups, etc.)

Due to the military restrictions no special visits took place.

8.2. Scientific research

The CBR conducts research under the national program "Chronicle of Nature" for protected areas, and also participates in numerous national and international research projects.

8.2.1. Current or completed research (observation, experimentation, etc.; identification or inventory of the species listed in the appendices to the Bern Convention, etc.)

In 2022, the CBR, as one of the partners, continued the implementation of the international project Life Prognoses - Protection of Old-Growth forests in Europe - is a project under the Life+ funded by the European Union. It involves different organizations from 8 European countries.

8.2.2. Scientific publications

Annually the scientists of the reserve prepare about 50 scientific publications, which include articles in leading journals of Ukraine and the world, collections of conference proceedings, monographs and others. The annual scientific journal "Nature of the Carpathians: Annual Scientific Journal of the CBR and the Institute of Ecology of the Carpathians NAS of Ukraine" is published.

9. Site description (vulnerability, protection status, ownership, documentation)

9.1. Changes in legislation or regulations

No changes.

9.2. Changes in ownership title (conversion to public property, rentals, etc.)

No changes.

9.3. Extension or transfer, new uses (for example, conversion into total reserve)

For the CBR's territory expansion see paragraph 4.

10. Site management (management plans, budget and personnel)

10.1. Improvements made

The implementation of the CBR's Management Plan approved in 2019 for a ten-year period is underway.

10.1.1. Ecological action affecting the flora and biotopes; controls of fauna

Employees of the research structural units and the Ranger Service monitor the state of the main habitats and populations of flag species of flora and fauna. Particular attention is paid to large carnivores. This year, one hydro-technical structure was reconstructed in the Narcissi Valley in order to increase the groundwater level with the aim to ensure preservation of the habitats of this floodplain meadows with their inherent biodiversity.

10.1.2. Protection against the elements (fire, water regime)

Fire-prevention infrastructure is maintained in good condition on a regular basis, annual preventive measures are taken.

10.1.3. Approaches and thoroughfares (paths, roads, car parks, signposting, fencing, etc.)

The infrastructure of the reserve is maintained in proper condition.

10.1.4. Field equipment (hides and study facilities)

In 2022 the Frankfurt Zoological Society provided some aid to the CBR with field equipment.

10.1.5. Waste management

No changes.

10.1.6. Use of renewable energy systems

Pilot mini-projects to provide solar power to the remote segments of the reserve are being initiated.

10.2. Management

On September 15, 2022 a new director started his work at the Carpathian BR.

10.2.1. Administrative department: changes made

No changes.

10.2.2. Wardens' department: changes made

No changes.

10.2.3. Internal policing measures

No changes.

10.2.4. Infringement of regulations and damage; legal action

Minor violations of the protection regime are recorded, which are reported in accordance with current legislation. Documents are sent to the appropriate authorities.

11. Influence of the award of the European Diploma for Protected Areas

As the CBR is the only one of all the PAs in Ukraine awarded with the European Diploma, it contributes to its image and recognition at both national and international levels. This status provides additional benefits in the context of participation in projects and programs.

