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Establishment of the Chernobyl Radiation and Ecological Biosphere Reserve in Ukraine: An Innovation or a Nonsense?

In the conditions of an environmental crisis, special attention should be paid to the problems related to the development of the culture of inter-relationships between man and nature, and the provision by the state of the environmental, nuclear and radiation safety. The proper attitude to legal forms, directions and specific features of the said inter-relation is aimed at improvement of the level of the environmental and legal culture.

One of the problems of the development of the environmental legal culture in Ukraine is social awareness of the needs to increase the legal protection of wild animals and their habitats (environmental conditions). Important directions are as follows: taking into consideration international legal and European approaches to the definition of the legal regime of utilization, reproduction and protection of the world of wild animals (wholly or in part); harmonisation of the conditions for transporting, trading and using of the world of wild animals and its facilities; protection of the place of the wild animals dwelling; provision of their environmental safety, primarily of the radiation safety. The natural reserve seems to be the most optimal form of protecting the world of wild animals.

The science of the legal environmental protection is based on complex and systematic environmental approaches to the protection, reasonable utilization and reproduction of the world of wild animals, it takes into consideration the biological mutual connections between all the elements of the environment. The subject of legal protection and reproduction of the world of wild animals was studied by such Soviet and Ukrainian scholars as V.I. Andreitsev, H.I. Baliuk, A.P. Hetman, O.S. Kolbasov, S.S. Konstantinidi, M.V. Krasnova, V.L. Muntian, V.V. Petrov, P.V. Tykhyi, Yu.S. Shemshuchenko, V.V. Sjekhovtsev

and others. The legal problems in the sphere of the natural-reserve based protection of the wild animals were also considered by A.Yo. Hodovaniuk, O.M. Kovtun, N.D. Krasilich and others. The issues of the legal regulation of relations aimed at providing the environmental, nuclear and radiation safety of man and of the natural environment were studied by H.I. Baliuk, Yu.M. Krupka, S.H. Plachkova, O.V. Sushyk and others. Of significant importance are works devoted to the man–nature relationship written, *inter alia*, by T.L. Andriyenko, V.I. Vernadskyi, A.I. Ioirysh, M.F. Reimers, F.R. Shtilmark and others.

However, the scientific and practical aspect of the legal protection and reproduction of the world of wild animals in radiation-contaminated areas through making natural reserves, has been considered insufficiently. Such an aspect has not been studied either in the context of the social environmental and legal culture. This accounts for particular importance of the topic suggested by the author of this publication.

The purpose of this study is to analyse the socio-legal preconditions for the formation of the Chornobyl Radiation and Ecological Biosphere Reserve (hereinafter referred to as the Reserve), to examine the issue of protection and reproduction of the world of wild animals as an important element of biodiversity within this territory. The attention was also paid to the provision of the environmental and radiation safety. To achieve the said purpose the following tasks were set up in the work: to study the scientific, regulating and legal as well as practical approaches of representatives of the legal and environmental fields to the environmental preservation of radioactively contaminated territories, formation of the Reserve, as well as protection and reproduction of the world of wild animals within its area.

In Ukraine, the legal protection of the world of wild animals is an important trend in the state environmental policy, which was demonstrated for the first time in the Constitution of Ukraine of 28 June 1996.¹ According to Art. 13 of the Constitution, the natural resources (and, thus, the world of wild animals) belong to the people of Ukraine. Pursuant to Art. 16, the state shall undertake the obligation to provide the environmental safety and support the environmental balance on the territory of Ukraine, while overcoming the consequences of the Chornobyl disaster – a planetary-scale catastrophe.

The modern status of the policy of Ukraine in the field of natural and anthropological protection is based on the foundations (Strategy) of the state environmental policy of Ukraine for the period of up to 2030, which were approved by the law of Ukraine of 28 February 2019² (this Strategy shall be practically commenced on 1 January 2020). The Strategy provides the below data in regard to biodiversity.

Ukraine, which occupies less than 6% of the area of Europe, possesses about 35% of its biological diversity. Ukraine's biosphere includes above 70,000 species of flora

¹ The Constitution of Ukraine of 28 June 1996, <https://www.rada.gov.ua> [access: 15.10.2019].

² Law of Ukraine on the Basic Principles (Strategy) of the State Environmental Policy of Ukraine for the Period till 2030 of 28 February 2019, <https://www.rada.gov.ua> [access: 26.10.2019].

(above 27,000 species) and fauna (above 45,000 species). For several years now, there has been an increase in the number of the flora and fauna species included in the Red List of Threatened Species of Ukraine (Chapter I). A few provisions of this document characterized the legal protection of the world of wild animals, protection of the rare and endangered species, the conditions of the areas of the natural reserves, and formation of a national environmental network and preservation of the biological and landscape biodiversity in Ukraine in general. The Law of Ukraine on Environmental Protection of 25 June 1991³ determines the basics of the protection and reproduction of the natural resources. The aspects of the legal protection and reproduction of the wild animals world are considered in a separate chapter in the Law of Ukraine on the World of Wild Animals of 13 December 2001⁴ (Arts. 36–54 in Chapter IV).

First of all, it is claimed that protection of the world of wild animals shall provide a complex approach to studying the situation, development and implementation of measures aimed at the protection and improvement of environmental systems, of which the world of wild animals is a component (Part 2, p. 36). Formation of an environmental network, establishment of state nature reserves, as well as determination of other natural territories and facilities (that are liable to a special protection), implementation of measures aimed at providing environmental safety (Art. 37) – it is only a part of the elements of the legal protection of the wild animals world. In Ukraine, they are provided by the norms of the Laws of Ukraine on the Nature Reserve Fund of Ukraine of 16 June 1992,⁵ on the Environmental Network in Ukraine of 24 June 2004,⁶ the Land Code of Ukraine of 25 October 2001,⁷ the Law of Ukraine on the Red List of Threatened Animals of Ukraine of 7 February 2002,⁸ and others.

Scholars who studied the said problems state that these measures make a system of legal and other guarantees of protecting the wild animals world.⁹ They also underline the need for special protection of the animal species, included in: the Red List of Threatened Animals of Ukraine, the European Red List of flora and fauna threatened with extinction at the global scale, the Red List of the International Union for Conservation of Nature and in lists of the regionally rare and threatened species of flora and fauna. The system

³ Law of Ukraine on Environmental Protection of 25 June 1991, <https://www.rada.gov.ua> [access: 26.10.2019].

⁴ Law of Ukraine on the World of Wild Animals of 13 December 2001, <https://www.rada.gov.ua> [access: 26.10.2019].

⁵ Law of Ukraine on the Nature Reserve Fund of Ukraine of 16 June 1992, <https://www.rada.gov.ua> [access: 26.10.2019].

⁶ Law of Ukraine on the Environmental Network of Ukraine of 24 June 2004, <https://www.rada.gov.ua> [access: 26.10.2019].

⁷ Land Code of Ukraine of 25 October 2001, <https://www.rada.gov.ua> [access: 26.10.2019].

⁸ Law of Ukraine on the Red List of Threatened Animals of Ukraine of 7 February 2002, <https://www.rada.gov.ua> [access: 26.10.2019].

⁹ *Tvarynniyi svit Ukrainy: pravova okhorona, vykorystannia ta vidtvorennia* [Fauna of Ukraine. Legal Protection, Use and Reproduction], red. H.I. Baliuk, Kyiv 2010, p. 157 (in Ukrainian).

of protection of such animals is complex. And it is not limited by the legislation on the Nature Reserve Fund of Ukraine.¹⁰ Partially, this is reflected in Art. 43 of the Law of Ukraine on the World of Wild Animals, which states that providing protection of the wild animals world on the territories and facilities of the Nature Reserve Fund of Ukraine shall be implemented according to this Law, the Law of Ukraine on the Nature Reserve Fund of Ukraine, and other legal acts.

The above-mentioned provisions of the national legislation on the protection of the world of wild animals correspond to the legal norms of sources of international environmental laws. Primarily, it is the Convention on Biological Diversity of 5 June 1992 (opened for signature in Rio de Janeiro) ratified according to the Law of Ukraine of 29 November 1994.¹¹ This Convention provides measures for the preservation and sustainable use of the biological diversity, and particularly establishment of protective territories, or territories where it is necessary to undertake special measures for the preservation of the biological diversity; promotion of the protection of ecosystems, preservation of vital populations of species in their natural conditions; reproduction of the endangered species, etc.

According to the Law of Ukraine of 29 October 1996, the country joined the Convention on the Conservation of European Wildlife and Natural Habitats of 19 September 1979.¹² Its main goal was to provide conservation of wild flora and fauna and their natural habitats, especially environments of the species, preservation of which requires cooperation of several states, as well as promotion of such a cooperation. Particular emphasise is given to endangered and vulnerable species.

Determination and preservation of a special area of conservation as a place, where the necessary conservation measures are applied for the maintenance or restoration, at a favourable conservation status, of the natural habitats and/or the populations of the species for which the site is designated (in the process of the formation of a Unified European environmental network of nature protection areas Natura 2000), are in the focus of the provisions of the Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.¹³

When analyzing the legal aspects of providing the nuclear and radioactive (radio ecological) safety in Ukraine after “the catastrophe of the century at the Chornobyl

¹⁰ *Ibidem*, pp. 190–191.

¹¹ The Convention on Biological Diversity of 5 June 1992, <https://www.rada.gov.ua> [access: 27.10.2019]; Law of Ukraine on Ratification of the Convention on Biological Diversity of 29 November 1994, <https://www.rada.gov.ua> [access: 27.10.2019].

¹² The Convention on the Conservation of European Wildlife and Natural Habitats of 19 September 1979, <https://www.rada.gov.ua> [access: 27.10.2019]; Law of Ukraine on Accession of Ukraine to the Convention on the Conservation of European Wildlife and Natural Habitats of 29 October 1996, <https://www.rada.gov.ua> [access: 27.10.2019].

¹³ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, <https://menr.gov.ua/news/31295.html> [access: 27.10.2019].

NPP”, Prof. Halyna I. Baliuk underlined the need to form a system of scientific, technical, economic, organisational, state-legal and other social measures for providing regulation of the radioactively dangerous activity in Ukraine. According to Baliuk, the radio-ecological safety was considered as the most significant element of the environmental safety on the national and global scale. That is why it is extremely important to provide a legal regulation of performing activities related with radioactive materials, to establish the system of using the nuclear energy in order to save lives and health of man, to protect the environment from the radioactive contamination resulting from the migration of radioactive substances in the biosphere and their accumulation in living organisms.¹⁴

The establishment of the Reserve was an innovation in terms of legal regulation in the sphere of the protection of the wild animals world by establishing nature reserves and territories, where wild animal species dwell. After making appropriate amendments to the legislation, the development of a new legal mechanism in regard to making nature reserves on the radioactively contaminated lands, and a new trend in the culture of the legal environmental protection – the legal culture of making nature reserves – began. Therefore, a new version of Art. 11 emerged in the Law of Ukraine on Legal Regime of Territories Exposed to Radioactive Contamination as a Result of the Chornobyl Disaster of 27 February 1991.¹⁵

This provision refers to the implementation of studies devoted to environmental protection, preservation of the natural diversity of the landscapes, gene pool of flora and fauna, supporting the overall environmental balance, provision of background monitoring of the environment in the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement. Moreover, according to the legislation, there may be formed territories and facilities of the nature reserve fund. In addition, it was found that only those activities may be carried out, which are specified in relevant provisions, taking into account the restrictions provided for in that Law. Support of a special nature protecting system within such territories shall be performed due to the legislation (Parts 2 and 3, Art. 11).

The need to form a nature reserve within the so-called “Chornobyl Area”, was felt long before the establishment of the reserve. Just 5 years after the accident at the Chornobyl Nuclear Power Plant (ChNPP), scientists noted a gradual reproduction of flora and fauna. There was an increase in the number of typical and the emergence of rare species of flora and fauna. Forecasts for the future were good – there were expected gradual transformation of anthropogenic landscapes into natural complexes typical for the Polissia Area. Only 20 years after the accident at the ChNPP, a territory of several thousand hectares became a reserve. Hundreds of not only typical, but rare species in-

¹⁴ H.I. Baliuk, *Pravovi aspekty zabezpechennia yadernoi ta radiatsiinoi (radioekolohichnoi) bezpeky v Ukraini* [Legal Aspects of Ensuring Nuclear and Radiation (Radioecological) Safety in Ukraine], Kyiv 1997, pp. 8–9 (in Ukrainian).

¹⁵ Law of Ukraine on Legal Regime of Territories Exposed to Radioactive Contamination as a Result of the Chornobyl Disaster of 27 February 1991, <https://www.rada.gov.ua> [access: 26.10.2019].

cluded in the Red List of Threatened Species found shelter and comfortable conditions for their multiplication.¹⁶

For this reason, the formation in 2007, within the borders of the Chornobyl Zone, of a Common Zoological Wildlife Area was – from the legal point of view – the beginning of the creation of a special legal system for the facilities and territories which were declared as reserved areas. According to Decree of the President of Ukraine on the Announcement of the Natural Territory as the General Zoological Reserve of the National Significance “Chornobyl Special” of 13 August 2007, No. 700/2007,¹⁷ a natural area of 48,870 ha within the borders of the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement (Kyiv Oblast) was announced to be a Common Zoological Wildlife Area of Significant Importance “A Chornobyl Special Wildlife Area” (item 1).

The aim of establishing the wildlife area was to preserve the unique properties of forestry plants in the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement within the Kyiv Polissia Area, which is the largest wildlife area in Ukraine that requires protecting and regulation of its amount of populations, in accordance with Art. 53 of the Law of Ukraine on the Nature Reserve Fund of Ukraine (the Preamble).

Improvement of the degree of protecting the biological diversity within the said territory in general, increasing the amount of territories of the nature reserve fund, development of research studies became possible due to efforts of researches and environmentally-oriented community only after less than 10 years from the time of establishment of the “A Chornobyl Special Wildlife Area”.

Resolution No. 1089-VIII of 13 April 2016 of the Verkhovna Rada of Ukraine on the approval of recommendations of the parliamentary hearings devoted to “30 Years after the Chornobyl Catastrophy: Lessons and Prospects”¹⁸ took place on 16 March 2016. Overcoming the consequences of the Chernobyl accident was recognized by the participants of the Parliamentary Hearings as one of the priorities in the state policy of Ukraine. There was recommended to legally regulate the problematic points by: implementing scientific and legally protected environmental activities on the territory of the Exclusion Zone and in the Zone of Unconditional (Obligatory) Resettlement (with the help of an international scientific cooperation); conducting activities aimed at the

¹⁶ *V Minpryrody vidkrylasia vystavka, prysviachena stvorenniu Chornobylskoho radiatsiino-ekolohichnoho biosferneho zapovidnyka* [The Ministry of Environment Has Opened an Exhibition Dedicated to the Creation of the Chornobyl Radiation and Ecological Biosphere Reserve], <https://menr.gov.ua/news/33351.html> [access: 12.10.2019] (in Ukrainian).

¹⁷ The Decree of the President of Ukraine on the Announcement of the Natural Territory as the General Zoological Reserve of the National Significance “Chornobyl Special” of 13 August 2007, No. 700/2007, <https://www.rada.gov.ua> [access: 30.10.2019].

¹⁸ Resolution No. 1089-VIII of 13 April 2016 of the Verkhovna Rada of Ukraine on the approval of recommendations of the parliamentary hearings devoted to “30 Years after the Chornobyl Catastrophy: Lessons and Prospects”, <https://www.rada.gov.ua> [access: 01. 11.2019].

legal preservation of reserved areas; and promoting work related to the formation of a Chornobyl Biosphere Reserve (sections 1 and 16, item 1).

Under the presidential Decree No. 174/2016 of 26 April 2016 on the Formation of the Chornobyl Radiation and Ecological Biosphere Reserve,¹⁹ the said wildlife area was finally established. The purpose of its creation was as follows: to conserve the most typical natural complexes of the Polissia in their natural state, to support and enhance the barrier function of the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement, to stabilise the hydrological regime and to rehabilitate areas contaminated with radionuclides, and to facilitate the organisation and implementation of international scientific research (the Preamble).

The Reserve, according to item 1 in the said Decree, was created at the territory of Ivankiv and Polissia districts, of Kyiv Oblast, within the borders of the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement. It was part of the territory that suffered from the radioactive contamination resulting from the Chornobyl disaster. The territory of the Reserve covers 226,964.7 ha of the state property land, which had been in permanent use of the State Agency of Ukraine for Exclusion Zone Management.

Reference has also been made to the provision of the said Decree on a legal regulation of the problem concerning the division of land from the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement from the territory affected by radioactive contamination; environmental protection regime for the territories and facilities of the nature reserve fund which are formed on the territories of the said zones; abolition of the requirement of establishing biosphere wildlife areas exclusively on the basis of natural wildlife areas and national nature parks.

The regulation on the Reserve was approved by Order No. 43 of 3 February 2017 of the Ministry of Ecology and Natural Resources of Ukraine.²⁰ It follows that the Reserve shall be a budget-funded, non-commercial, research institution of the state significance, and that it was formed with the purpose of: preserving the most typical natural complexes of the biosphere in their natural state, putting in practice the background environmental monitoring; researching the environment and its changes resulting from anthropogenic factors (item 1.2). According to the provided procedure, the Reserve shall be included to the World Network of Biosphere Reserves within the UNESCO framework “Man and the Biosphere”, and it shall acquire an international status (item 1.3). The Reserve belongs to the sphere of regulation by the State Agency of Ukraine for Exclusion Zone Management (item 1.5).

¹⁹ The Decree of the President of Ukraine on the Formation of the Chornobyl Radiation and Ecological Biosphere Reserve of 26 April 2016, No. 174/2016, <https://www.rada.gov.ua> [access: 31.10.2019].

²⁰ The Order of the Ministry of Ecology and Natural Resources of Ukraine of 3 February 2017, No. 43 on the approval of the regulation on the Chornobyl Radiation and Ecological Biosphere Reserve, <https://www.rada.gov.ua> [access: 30.10.2019].

The Director of the Reserve speaks of the contradiction existing between the Law of Ukraine on the Nature Reserve Fund and the legislation concerning the Exclusion Zone. According to him, the point is that the Exclusion Zone is a unique territory. Although natural environment has recovered after 30 years, there are areas which are still contaminated. He presented two priority tasks for the Reserve: preservation of flora and fauna, and prevention of the radionuclides spreading onto the clean territories, that is the Area shall perform its barrier-protecting functions.

Some rumors were circulating about two- and three-head monsters found in the Chernobyl Zone. In reality, however, nothing like this has ever happened. The Director denied those rumors and organized a series of meetings with schoolchildren and students from Kyiv schools and higher educational institutions. Experts from the Management Group of the Reserve constantly work with the public; tell about Reserve mission, or read lectures for young people. One of the most important tasks of the Reserve is to present true information about the situation in the Exclusion Zone, which gradually changes into the Recovery Zone.²¹ Therefore, the largest Reserve Area in Ukraine formed within the 30-km Exclusion Zone became a basis for conducting an extremely important environmental experiment, which is unique not only in the country, but in the whole world.²²

Nowadays, according to the data provided by the scientists from the Reserve, there were registered above 320 species of vertebrates (out of the total number of 410 species that can be found in the region), out of which 55 species (out of 97 probable ones) are included in the Red List of Threatened Animals of Ukraine. The number of ungulate animals, predators and vultures as well as other wild animals reached the highest level in the history of the Reserve. There have been recorded rising population of mammals, e.g. lynx, bear, elk, royal deer, wild boar, roe deer and of rare birds – the while-tail eagle, spotted eagle, black stork, crane, eagle-owl and others. It is a habitat for 14 species of the Chiroptera order, some of which (the pond bat, barbastelle bat and the greater noctule) are rare even in Europe.²³

At the same time, the attention of researchers is mainly focused on studying the rare and typical species of flora and fauna – large predators (the brown bear, lynx, wolf) and ungulates (the elk, deer, roe deer), whose population increased significantly over the recent years. Scientists who visit the Exclusion Zone pay particular attention to the unique population of Przewalski's horses, introduced in the 1990s. Nowadays the species composition of animals inhabiting the territory of the Reserve is adequate to the fauna of Polissia.²⁴ The process of forming nature reserves in the state shows a high

²¹ T. Melnychuk, "Iz zony vidchuzhennia namahaiemosia zrobyty zonu vidrozhennia" ["From the zone of alienation we try to make a zone of revival"], https://zapovidnyk.org.ua/index.php?fn=no_vp&f=php&pid=2019-04-16-19-58-58-9209 [access: 11.10.2019] (in Ukrainian).

²² *V Minpryrody...*

²³ *Ibidem.*

²⁴ *Chornobyl'skyi radiatsiino-ekolohichnyi biosfernnyi zapovidnyk* [Chernobyl Radiation and Ecological Biosphere Reserve], <https://zapovidnyk.org.ua/> [access: 15.10.2019] (in Ukrainian).

level of environmental culture, while providing appropriate level of practical functioning (using legal mechanisms) characterises the degree of environmental and legal culture of the society. The territory where the Reserve is located is an important historical and ethnographical region of Ukraine. The area is covered with thick forests and impassable swamps and bogs, in which the oldest relics of the pre-Slavic culture are still preserved. The area of Ukrainian Polissia is the subject of regular studies conducted by archeologists, historians, folklorists and ethnographers. Recently, it has also become interesting for specialists conducting active research in the field of environmental problems of flora and fauna which are connected with different radiation levels and lack of human activities.²⁵

Scientists say that there is now a unique opportunity to recover quasi-natural environmental systems, similar to those that existed around 5,000–2,000 years ago in the forested zone of Europe. The “Fauna” program (2000) largely provides the opportunity to reconstruct similar environmental systems by recovering large herbivores (Przewalski’s horse, bison). In the case of Przewalski’s horse, it supports the natural growth of the population from about 100–150 to 300–500 individuals. What is of great importance is the settlement of all ecotopes with the appropriate species (providing them with adequate protection and increasing genetic biodiversity). Przewalski’s horse would be introduced to all fallow land, meadows and rather poor and dry forest conditions.²⁶

In order to successfully reintroduce the European bison, scientists suggest that at the initial stage, there should be provided a system of forage fields under power transmission lines and in fallow lands with the best soil on the left bank of the Pripyat (about 10 fields, the area is approximately 20 hectares each) to the north of the railway line (about the same size). After that it is necessary to introduce the European bison in the quantity of not less than 10 individuals to each of these plots of land. Besides, there are animals which regularly migrate from Belarus. In 30 years, the population of the European bison in the Reserve may reach 300–500 individuals and occupy forests with small meadow areas as well as the nearby pastures with better environmental conditions.²⁷

As far as the reintroduction of aurochs (its reconstructed analogues) is concerned, it is suggested at first to provide a population of domesticated populations of cattle of the protomorphic species, which would make their habitation in the wild world possible, and then to make their selection and increase their population. The creation of semi-wild populations by using their natural selection will result in the occurrence of an analogue of the aurochs. As the natural habitats of aurochs were flood plains (water-meadows

²⁵ V *Minpryrody...*

²⁶ Ye.O. Vorobiov, S.M. Bidna, D.O. Vyshnevs’kyy, S.O. Yevdokymova, O.A. Borsuk, *Ekosystemy Chornobylskoho radiatsiino-ekolohichnoho biosferneho zapovidnyka: kryzovi yavyscha mynuloho i suchasnosti ta shliakhy optymizatsii* [Ecosystems of the Chornobyl Radiation and Ecological Biosphere Reserve: Crisis Phenomena of the Past and Present and Ways of Optimization], <https://zapovidnyk.org.ua/index.php?fn=novp&f=php&pid=2019-04-16-19-32-40-3325> [access: 15.10.2019] (in Ukrainian).

²⁷ *Ibidem.*

and thin forests) with rich vegetation, the places suggested to be used for the formation of two more herds are the flood plains of the Uzh and Pripyat rivers. If these works are implemented, in 30 years we can expect spreading of the species around all suitable ecotopes and stabilisation of the population at the level of 300–500 individuals.²⁸

At present, we should note that the process of the formation of the legal mechanism in relation to nature reserves in the Chernobyl Zone, and provision of the environmental and radiation safety within the borderline of that one is continually evolving. According to the data from the Reserve Administration, the Reserve will not only perform its primary function – preserving local biodiversity – but it will become an important element of the “outdoor laboratory”. On this basis, there have been defined 3 priorities that will contribute to the development of the Reserve in the coming years. These are:

1) environmental protection – preservation of the most typical natural complexes in Polissia Area in the natural state, conservation of the natural diversity of landscapes, gene pool of flora and fauna; maintenance of the ecological balance, improvement of the barrier function of the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement; stabilization of the hydrological regime and rehabilitation of the territories contaminated with radionuclides;

2) conducting researches – ecological monitoring of the environment, periodic inventory of natural resources; keeping records of the Nature Chronicles; development of scientific recommendations on the preservation and reproduction of rare species of flora and fauna, restoring of natural ecosystems; preparation of scientific materials and recommendations necessary for the implementation of environment-related activities;

3) informational measures – enhancing awareness and knowledge of values of the biological and landscape diversity of the Reserve, shaping environmental awareness.²⁹

The recent presidential Decree No. 196/2018 of 5 July 2018, on additional measures aimed at recovering the territories that were radioactively contaminated as a result of the Chernobyl catastrophe – the social protection of affected individuals, and safe radioactive waste management,³⁰ concerns the necessity to undertake measures aimed at reconstruction of the territories that have been radioactively contaminated as a result of the Chernobyl catastrophe. Particularly, the measures include the following: the endorsement, by the end of 2018, of the draft strategy for overcoming consequences of the Chernobyl catastrophe and recovery of territories that suffered from the radioactive contamination; considering of a cross-border Ukrainian-Belarus Biosphere Reserve Area on the territories that suffered from the radioactive contamination (item 3).

²⁸ *Ibidem.*

²⁹ *Chornobylskiyi...*

³⁰ The Decree of the President of Ukraine on additional measures aimed at recovering the territories that were radioactively contaminated as a result of the Chernobyl catastrophe – the social protection of affected individuals, and safe radioactive waste management of 5 July 2018, No. 196/2018, <https://www.rada.gov.ua> [access: 31.10.2019].

At the same time, particular attention was paid to the problem of development of the Reserve as a unique environmental facility. Point 5 of the Decree includes, *inter alia*, the implementation of a radiological monitoring system for the territories in question by the end of 2018 to assess and determine prospects for their further development; and examining the aspect of possible improvement in the administration and functioning of the Reserve system. Although not all of the tasks have been fulfilled completely till the end of the last year, the importance of their implementation in the future is beyond all doubts. In addition, the government should provide many legal, organisational, financial, technical and technological, as well as a number of other guarantees to fully implement the tasks.

In conclusion, developing and adopting a strategy to overcome the effects of the Chornobyl disaster and recover the territories affected by radioactive contamination is still crucial. The idea is contained in point 1 of presidential Decree No. 141/2016 of 13 April 2016 on additional measures to transform “the shelter object” into an ecologically safe system, and on recovering the territories that were radioactively contaminated as a result of the Chornobyl catastrophe.³¹ The Strategy shall aim at the following: normalisation of the aspects related to recovering the territories that were radioactively contaminated; activation of scientific works in the field of nuclear and radiation safety, and the ones devoted to the effects of ionising radiation on human beings and environment.

In this context we also support the proposals of scientists who considered the problems connected with the formation and protection of nature reserves, and with the needs to develop and adopt the national Concept of the Reserved Areas oriented at international standards.³² This document should also provide a chapter devoted to the specific features of the legal regime in the territories and facilities of the Nature Reserve Fund located in the Chornobyl Zone.

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³¹ The Decree of the President of Ukraine on additional measures to transform “the shelter object” into an ecologically safe system, and on recovering the territories that were radioactively contaminated as a result of the Chornobyl catastrophe of 13 April 2016, No. 141/2016, <https://www.rada.gov.ua> [access: 30.10.2019].

³² *Pravovyi rezhym pryrodno-zapovidnoho fondu Ukrainy: istoriia formuvannia, yurydychni aspekty ta zakordonnyi dosvid* [Legal Regime of the Nature Reserve Fund of Ukraine: History of Formation, Legal Aspects and Foreign Experience], red. O. Kravchenko, Lviv 2017, p. 44 (in Ukrainian).

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Abstract: The paper is devoted to the issue of protection and reproduction of the world of wild animals within the radioactively contaminated territories. The author pays attention to the socio-legal aspects of: the legal regulation in Ukraine with reference to the process of the formation of the Chornobyl Radiation and Ecological Biosphere Reserve within the Exclusion Zone and the Zone of Unconditional (Obligatory) Resettlement, intensification of the measures aimed at protection, and reproduction of the world of wild animals as an important element of biodiversity within this area.

Keywords: biodiversity; Chornobyl Radiation and Ecological Biosphere Reserve; Chornobyl Zone; ecological and legal culture; nature reserve fund; nuclear and radioactive safety; radioactively contaminated territories; wild animals