

*I. Dziyublyk, Master student*  
*N. Kurnosova, PhD in Phil., As. Prof., language advisor*  
*Zhytomyr State Technological University*

## **BIODIVERSITY: ITS STATUS TRENDS AND ENVIRONMENTAL LEGISLATION IN UKRAINE**

Biological and landscape diversity is one of our greatest riches. Biodiversity enables the existence and development of many ecosystem services: harvesting and selling of forest resources, hunting, fishing, herding cattle, tourist and recreational services, etc. Nowadays natural diversity is in a rapid and continuing decline. Across the country, valuable and characteristic habitats are suffering serious damage; this has led to decline in the diversity, number and range of a wide variety of species, habitats and landscapes.

This decline is caused by both anthropogenic and natural factors. Each year a large portion of wood is being cut through the sanitary measures, which harm biodiversity. The current sanitary rules in Ukrainian forests govern sanitary actions in any woods. For nature and reserve fund this means that all major protected sites (age-old forests, hollowed trees and dead wood) can be cut down in all protected forests and all other forests in the country. It is worth noting that after 2010 the forest sanitation on the territories of natural reserves is carried out with involvement of the Ministry of Ecology and Natural Resources that significantly reduced the amount of timber harvesting and reinforced control over loggings. Uncontrolled use of forest resources (deforestation), which violates the natural conditions of existence of rare species of plants and animals, is one of the main threats to biodiversity of forest ecological systems. Forest plantations are subject to negative impact caused by industrial pollutions and climate change. Excessive exploitation of the steppes (plowing up, overgrazing, burning dry remnants of natural vegetation) leads to the destruction of natural steppe ecosystems, impairs the conditions of ensuring territorial cohesion of the areas with natural landscapes. The loss of the steppe ecosystems is also observed due to their scientifically unjustified afforestation.

Among the natural factors, one can distinguish an excessive overgrowing of small rivers with air-water vegetation that reduces the biodiversity of aquatic organisms (plants and animals). The main threat to biodiversity in the woods is the effects of climate change. For example, increasing temperature by one degree causes a shift of the boundaries of natural areas by 160 km. Ukraine could not escape such changes. Given that an average temperature in Ukraine for the last ten years has risen by 0.3-0.6 °C (for the last 100 years - by 0.8 °C), the shift of the boundaries of natural areas has already become a reality, which is proved by appearance of species of flora and fauna not specific to the zones. An urgent problem for the Ukrainian Carpathians is drying spruce forest, which is considered by scientists as a disaster and priority problem to solve. Predicting the effects of climate change in Ukraine shows that doubling carbon dioxide content in the atmosphere can trigger increase in the amount of precipitation by 20%; relocation of subtropical cyclones in the moderate and northern zones, which will facilitate desertisation of the South of Ukraine; decrease of

forests productivity on the whole territory of Ukraine, in particular as a result of spread of diseases and pests.

The National Programme for the Development of the National Ecological Network of Ukraine for 2000 - 2015, approved by the Law of Ukraine № 1989-II of 21.09.2000 is the policy paper in the area of protection, restoration and sustainable use of biodiversity. The Programme was developed in the context of requirements to further elaboration, improvement and development of the ecological legislation of Ukraine and also in accordance with the recommendations of the Pan-European Biological and Landscape Diversity Strategy (1995) regarding the issue of development of the European Ecological Network as a unified spatial system of the territories of European countries with natural or partly changed conditions of landscape. The main purpose of the Programme is to increase the land area of the country with natural landscapes to the level sufficient to maintain their diversity, close to their inherent natural state, and shaping their territorially unified system established to provide opportunities for natural ways of migration and dispersal of the plant and animal species, which would provide for preserving natural ecosystems, species of flora and fauna and their populations. The national ecological network has to meet the requirements to its functioning within the Pan-European Ecological Network and fulfil the leading functions of conservation of biological diversity. In addition, the Programme has to facilitate well-balanced and sustainable use of biological resources in the economic activities.

On December 21, 2010 the Verkhovna Rada (Parliament) of Ukraine approved the Law of Ukraine "On Main Principles (Strategy) of the National Ecological Policy till 2020". The Strategy defines the main tasks and goals. Biodiversity is highlighted in Goal 5. Preventing loss of biological and landscape diversity and developing ecological network. To achieve this goal the following task were defined:

- establishing a system of preventive measures for the invasive alien species by 2015 and ensuring control over introduction of such species to ecosystems, including the marine ones;
- improving the regulatory framework for the system of control of trade in endangered wild flora and fauna species, by 2015;
- holding the awareness campaign about the value of ecosystem services as in the case of the Ukrainian ecosystems by 2015, developing the ecosystem services assessment by 2015 and its subsequent application;
- enlarging the national ecological network area to the level (41% of the country), necessary to ensure the environmental safety of the country by 2015; implementing the system of environmental measures on conservation of biological and landscape diversity and expanding the area of nature and reserve fund up to 10% in 2015 and up to 15% of the total territory of the country in 2020;
- introducing the ecosystem approach into the management activities and harmonizing the environmental legislation in accordance with the directives of the European Union by 2020;
- creating the network of centres of artificial breeding and reacclimatization of rare species of plants and animals and those that are endangered by 2020;

- creating the system of economic levers to facilitate conservation of biological and landscape diversity and development of ecological network on the lands of all ownerships by 2020;
- taking administrative measures to stop a disastrous decrease in aquatic livestock because of over-exploitation and degradation of the natural environment by 2015.

The main mechanism for implementing the Strategy is the National Environment Protection Action Plan, which was adopted on 25 May 2011 by Order № 577-r of the Cabinet of Ministers of Ukraine and focused on the period of 2011-2015.

Under Goal 5, it is envisaged to implement 43 measures, which correspond to the Aichi Biodiversity Targets, including the mostly unchanged activity to determine the areas where it is planned to create the representative and interrelated nature protection territories covering not less than 17% of the land and inland waters and 10% of coastal and marine areas by 2020.

A great attention is paid to the task of evaluating and classifying the ecosystem services, monitoring biodiversity and ecological network, keeping the state cadastres of flora and fauna, the Red and the Green Books of Ukraine, the conservation and restoration of populations of the species of animals, which are listed in the Red Book of Ukraine and protected in accordance with international agreements, measures of environmental education in schools.