PROTECTED AREAS AS A BASIS FOR BIODIVERSITY CONSERVATION AND ECOSYSTEM SERVICES IN EUROPE: ASSESSMENT OF UKRAINE'S CONTRIBUTION

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The article analyzes the use of land resources of countries in the context of globalization. Investment-attractive regions have been identified, the socio-economic and political conditions of which contribute to the seizure of land by foreign investors. Sources of food security of countries with developed economies are substantiated. Peculiarities of formation of land and resource space of European neo-colonial countries are determined. One of the most important historical events in the political and socio-economic dimensions of the world was colonialism, associated with the development of capitalism. In the book, Eric Wolfe, "Europe and People Without History", describes in detail the global expansion of the borders of European states in order to control both human and natural resources, as well as to expand global development and promote Christianity [1]. European colonialism became an early form of globalization that shaped most of the world's current political borders. In this way, technologies, food and ideas based on the colonial countries - Britain, Spain, France, Portugal and the Netherlands, etc. were transported. The main goal is

to use the limited resources of the colony country and make a profit. This approach is called neocolonialism (corporate colonialism), just as classical European colonialism aims at the comprehensive exploitation of natural resources, labor, and markets for superprofits.

Key words: *protected areas, land use, nature use, territory, ecological network, biological diversity..*

Formulation of the problem. A high standard of living and the well-being of society depend significantly on ecosystem services, the basis of which is the biological diversity of nature. For the first time, the term "biodiversity" was introduced in 1988 by the American biologist E. Wilson [7]. In the broadest sense, it should be understood as the variability of life at all levels of biological organization [1]. A broader interpretation is given in Article 2 of the Convention on the Conservation of Biological Diversity (Planet Earth Summit, Rio de Janeiro, 1992), in which the term "biological diversity" is defined as "the diversity of living organisms from all sources, including, among others, terrestrial, marine and other water ecosystems and ecological complexes of which they are a part; this concept includes diversity within a species, between species and diversity of ecosystems" [6].

In such conditions, an important element of the development and improvement of the quality of ecosystem services are land resources, which act as the spatial basis for the existence, preservation and development of biodiversity. The European practice of providing the population with ecosystem services is closely related to the development of programs for the preservation, protection and development of natural territories. According to J.P. Grandfather, when forming protected areas, it is necessary to adhere to evolutionary, historical, zonal-geographical, ecological, scientific-cognitive, economic, and social principles. However, as the researcher notes, despite the common goal of preserving natural resources, the methods of implementing such ideas can differ significantly. Thus, in the post-Soviet space, the main emphasis was placed on the formation of nature reserves. The Western nature protection system emphasizes national parks [3]. It is important to note that in the first case, protection from people was provided, and in the second - for people. In the

course of our research, we will conduct a comparative characterization of the state and prospects for the development of nature conservation areas in Europe.

The aim of the study consists in carrying out a comparative assessment of the state of nature conservation areas in European countries.

Results of research and discussion. Investigating the specifics of the influence of the land resource potential on the preservation of biodiversity and ecosystem services of the territory, it is worth focusing attention on nature conservation areas. In the post-Soviet system of nature conservation, the spatial basis is the objects of the nature reserve fund. The nature reserve fund is defined as "areas of land and water space, the natural complexes and objects of which have a special nature conservation, scientific, aesthetic, recreational and other value and are allocated for the purpose of preserving the natural diversity of landscapes, the gene pool of animal and plant life, maintaining the general ecological balance and provision of background monitoring of the natural environment" [4]. The second part of Article 7 determines that "the lands of territories and objects that have a special ecological, scientific, aesthetic, economic value and are designated as objects of complex protection belong to the lands of the nature reserve fund and other nature protection or historical and cultural purpose" .

The greatest achievement in nature protection is the granting of protected status to a valuable natural area. For this purpose, in Ukraine, the objects of the nature reserve fund are being created, and it includes more than 8,633 such objects. As of January 1, 2021, the percentage of conservation in Ukraine is 6.8%. The territory of the nature reserve fund occupies an area of 4.418 million hectares within the territory of Ukraine (the actual area is 4.085 million hectares) and 402500.0 hectares within the Black Sea water area. [5].

It is worth remembering that the territories of eco-borders and objects of the nature reserve fund are not identical concepts and are part of a broader concept, namely nature conservation territories. As already mentioned above, the main goal of the creation of the Emerald (Natura) network is the conservation of habitats and species covered by the Berne Convention. Instead, the objects of the nature reserve fund have a different meaning and features. Therefore, territories under eco-networks

can both overlap with other nature conservation territories and include other territories. The structure of the overlap of eco-networks and with such objects of some European countries is shown in Figure 1. The figure shows that the overlap of nature protection areas and eco-networks is quite significant, for example in Slovenia (37%), Luxembourg (27%), Slovakia (15.8%) , Estonia (17.8%).

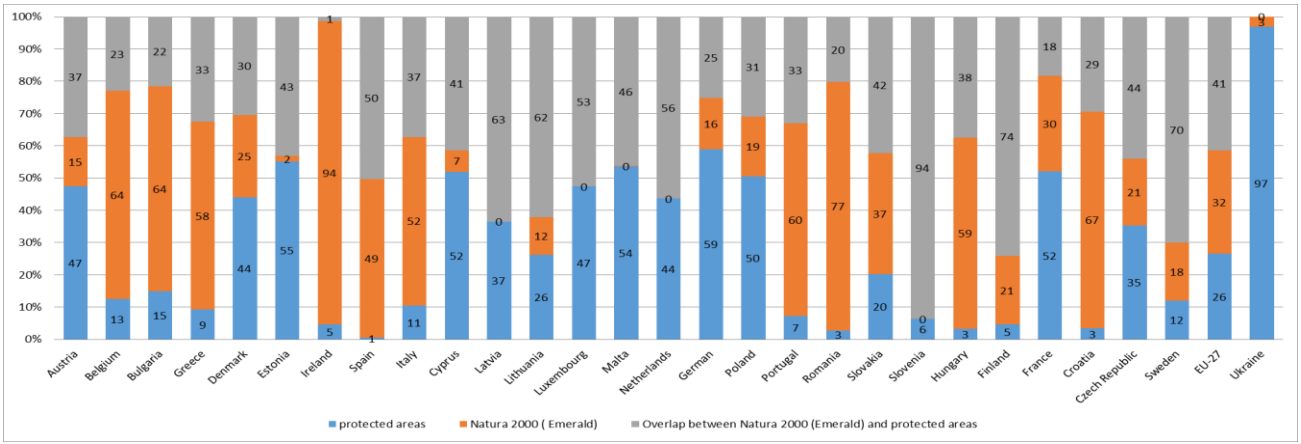

Fig. 1. Overlapping of eco-networks and other nature conservation areas in Europe, % [2]

The total share of natural territories in the structure of national land use is shown in Figure 2. To assess the level of natural protection of the territory, we calculated the "protected area index, as a share of protected areas (Sz.t.), i.e. the ratio of the area of protected areas (nature reserve fund in Ukraine) to a certain of the territory (Spzf) to its total area (Szag.)":

$$Sz.t.= Szf/Szag*100\%.$$

This indicator indicates the level of natural resource potential and ecosystem services of the territory of the state. The European leaders are: Luxembourg (0.51), Bulgaria (0.41), Slovenia (0.40), the lowest level of conservation is characterized by land use in Ireland (0.14), Finland (0.13). In Ukraine, this indicator is 0.07, which is an order of magnitude lower than the European average of 0.26. Such a ratio indicates an insufficient level of provision of nature conservation areas.

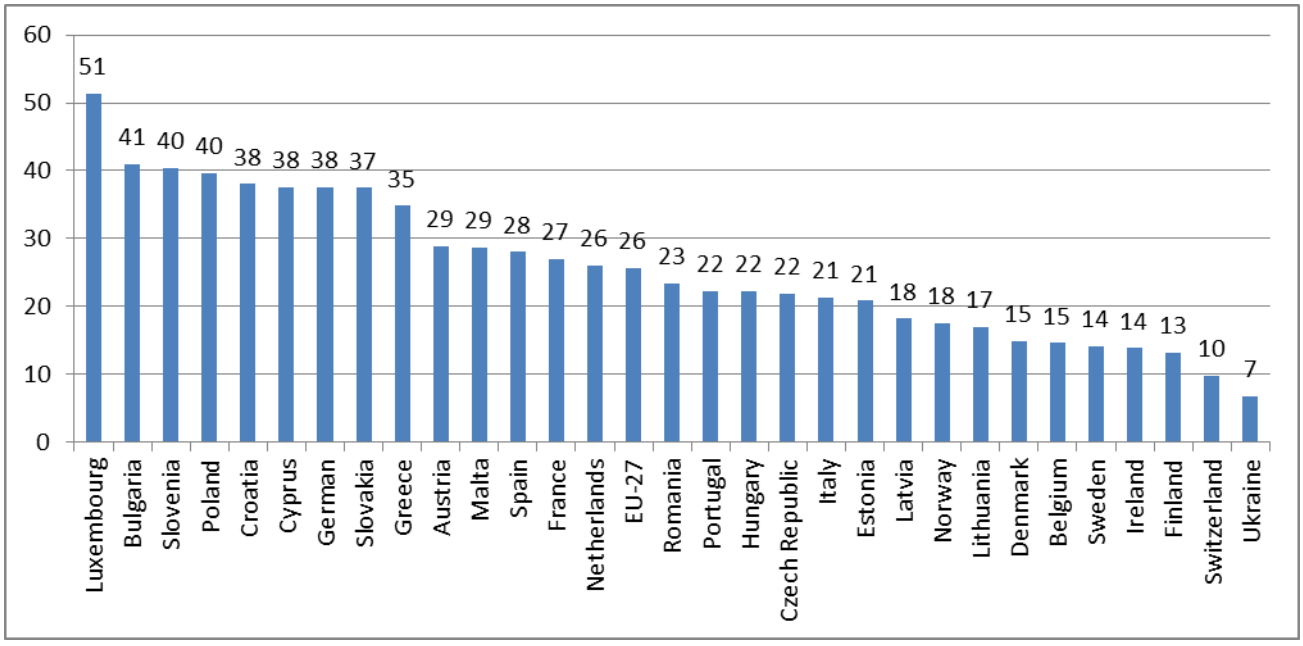

Fig. 2. Conservation index of European countries.

Analyzing the development of the European system of eco-networks, it is worth noting that the rapid expansion of biodiversity conservation facilities and ecosystem functions of territories is possible only with a systemic state policy of support and the available opportunities to expand such territories due to other types of land use and diversification of production.

The aggregate diversity of ecosystem services is possible thanks to the existing natural-territorial complexes, the basis of which is land. Thus, in most developed countries, the basis of such territories are: forests, natural pastures, shrubs, water and wetlands, land without vegetation (Fig. 3). That is, the prospective inclusion or granting of status to these nature conservation areas or eco-networks constitutes a significant potential for nature conservation and improvement of biodiversity conservation and provision of ecosystem services. After analyzing the structure of nature conservation areas, we can see that in the EU they are based on lands under forest massifs (49.6%), agrosystems (29.8%), arid areas with poor vegetation (9.2%), water bodies (5.4%), wetlands (4.09%) and the smallest share falls on built-up areas (1.91%). In Ukraine, their structure has a different qualitative content, so forests make up 55.9%, water bodies 19.7%, wetlands 10.5%, dry lands and without vegetation cover about 9%, agrosystems 4.5% and built-up areas 0.3%. We see that the involvement of agricultural land can significantly expand the nature protection

complexes of Ukraine. After all, the land use system that has developed over the past 30 years has not contributed to the greening of land use, which is provided for by the current land legislation of Ukraine. The state strategy of regional development foresees that the area of the natural reserve fund will increase to 15% of the total territory of the state as of 2020. This indicator is an extremely important socio-economic indicator, the growth of which will ensure the ecological balance of ecosystems and strengthen the ecological stability of the territories as a whole.

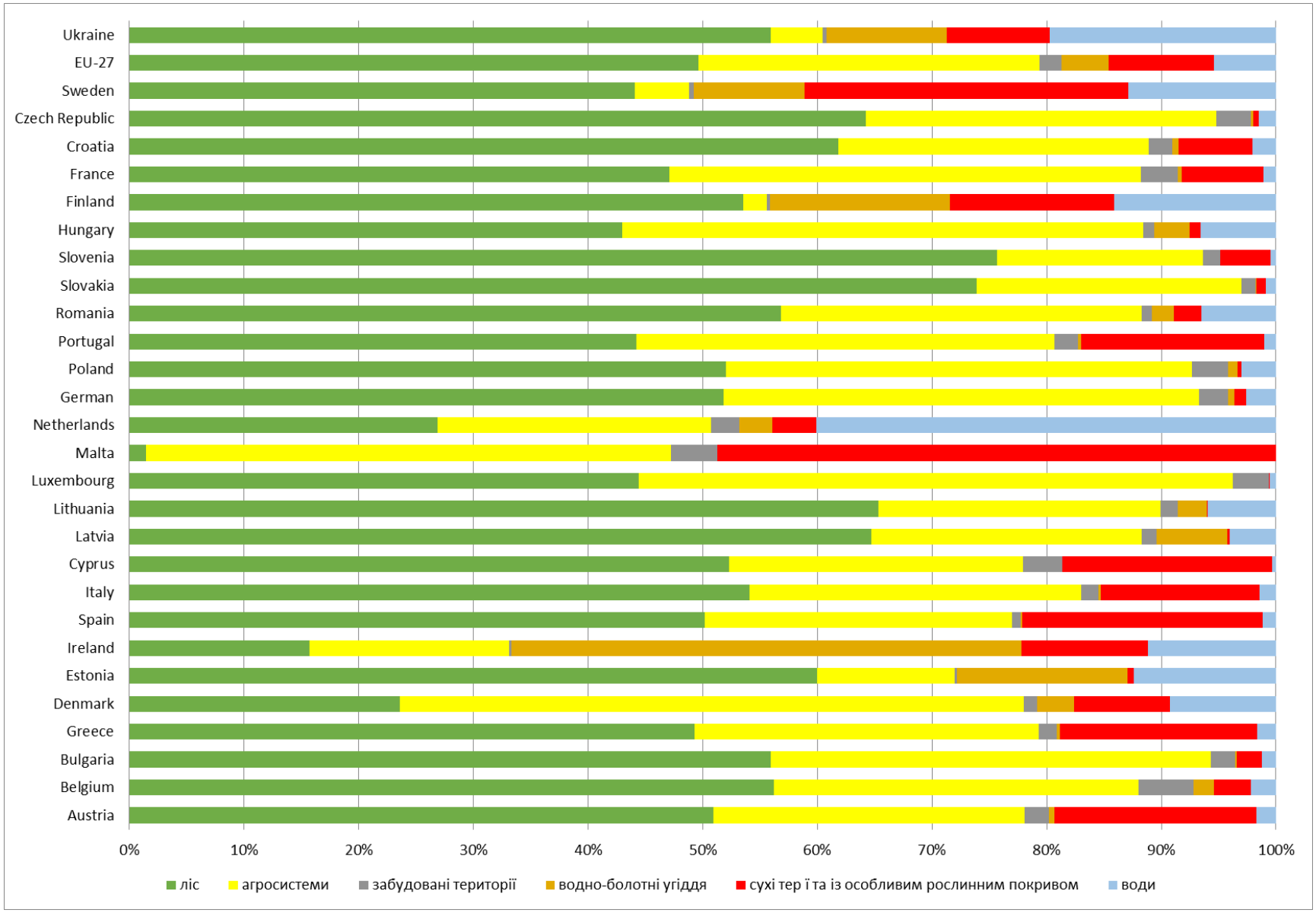

Fig. 3. Structure of nature conservation areas in European countries, %.

Conclusions. So, for a better understanding of the importance of preserving biodiversity and ecosystem functions of the territory, it is worth understanding what benefit they provide to society. Such public benefits and useful natural resources are determined by the system of ecosystem services, on which the satisfaction of fundamental human needs in habitat and food products depends, and therefore our standard of living directly depends on them. Biodiversity preservation is an important component of Ukraine's environmental policy, since Ukraine occupies about 6% of Europe's area, and more than 35% of European biodiversity is concentrated in Ukraine, which in turn should determine the need to increase nature conservation areas. With Ukraine's choice of a pro-European course of development, there is a need to transition to European standards for the protection of biological diversity and ecosystem functions of territories. The keys to a successful transition should be territories with a high nature conservation effect and the ecomere system, as the foundation for preserving biological diversity and ecosystem functions of the territories. In our opinion, the Western system of creating nature conservation areas should become the basis for the modernization and further development of both the European and national nature management systems.

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ПРИРОДООХОРОННІ ТЕРИТОРІЇ ЯК ОСНОВА ЗБЕРЕЖЕННЯ БІОРІЗНОМАНІТТЯ ТА НАДАННЯ ЕКОСИСТЕМНИХ ПОСЛУГ У ЄВРОПІ: ОЦІНКА ВНЕСКУ УКРАЇНИ

У статті проведено аналіз структури природоохоронних територій ряду європейських країн. Визначено необхідність проведення дослідження стану та особливостей формування природних територіальних комплексів. В зв'язку із чим, опрацьовано значний обсяг бібліографічних та електронних інтернет джерел, як закордонних так і вітчизняних авторів та дослідників. Інформаційну основу дослідження становлять статистичні дані Держгеокадасту України, Eurostat, European Environment Agency, що дозволило провести аналіз стану природоохоронних територій. Обґрунтовано та визначено роль природоохоронних територій як основи збереження біорізноманіття та екосистем них функцій території. Приведено авторську оцінку стану природоохоронних територій та запропоновано підхід щодо розрахунку індексу заповідності європейських країн. Проведено аналіз структури природоохоронних територій у Європі та визначенні напрямки щодо нарощування площ останніх. Визначено, що у більшості розвинених країн основу таких територій становлять: ліси, природні пасовища, чагарники, водяні та водно-болотні угіддя, землі без рослинного покриву. Тобто перспективне включення чи надання статусу цим природоохоронних територій

та екомереж складає значний потенціал для збереження природи та покращення збереження біорізноманіття та надання екосистемних послуг.

Ключові слова *природоохоронні території, землекористування, природокористування, територія, екологічна мережа, біологічне різноманіття.*