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## STRUCTURAL ANALYSIS OF THE NATURAL RESOURCES POTENTIAL OF THE TRANSCARPATHIA REGION

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**Relevance.** The Transcarpathian region is located in the western part of Ukraine and is an important part of the Carpathian region. Its characteristic feature is the attachment to the southwestern macro-slope of the Ukrainian Carpathian mountain system, which mainly determines the peculiarities of the natural conditions of the region. The diversity of natural conditions and landscape diversity determine the relatively high natural resource potential (NRP) of the study area, which is characterized by the peculiarity of the species composition of natural resources, their concentration and stocks. For example, Transcarpathian region ranks first in Ukraine in terms of forest resources potential [1].

The relevance of our study is to analyze the current structure of the natural resource potential of the Transcarpathian region which is unique in natural and economic features of the region of Ukraine, whose natural resources have been actively used for a long time in various spheres of human activity (forestry, agriculture, industry, recreation and tourism, nature conservation activities, etc.). In order to develop recommendations for the rational use of nature and to reduce the negative impact on the natural complexes of the Transcarpathian region, it is necessary to have information about the internal heterogeneity and peculiarities of the region, including the structure and features of the natural resource potential.

The aim of the article is to analyze the features of the current structure of the natural resource potential of the Transcarpathian region.

The **specific objective** of the present study is to determine the peculiarities of the influence of natural conditions on the formation and structure of the natural resource potential of the Transcarpathian region, as well as its analysis on the basis of quantitative indicators.

**The main material.** The Transcarpathian region is located on the southwestern macro-slope of the Ukrainian Carpathians and the Transcarpathian lowlands, within the Tisza river basin, an integral index of natural resource potential of which is 24,62 ‰ (fig. 1) [1]. By this indicator, it is second in the Carpathian region (97,58 ‰) and is second only to the Lviv region (37,65 ‰). The study area is characterized by a kind of landscape and biodiversity.



Fig. 1. Natural resource potential of the Transcarpathian region (according to V. Rudenko [1])

According to V. Rudenko, in the structure of NRP of the Transcarpathian region, water resources (7,75 ‰) have the greatest potential [1]. The region is characterized by a dense hydrographic network, which is formed by 9 426 rivers with an average density of 1,7 km/km<sup>2</sup> [2]. The dense river network of the region is mainly the result of significant rainfall (over 1 500–1 700 mm a year in mountainous areas) caused by the windiness of the southwestern macro-slope of the Ukrainian Carpathians and the transfer of moist Atlantic air masses. A characteristic feature of the study area is the presence of a large number of relict glacial lakes in the highlands of the mountain ranges, in particular – Chornohora and Svydovets. Among them, the most famous are Brebeneskul, Breskul, Vorozheska and others. In general, the freshwater supply in the region is 400 million m<sup>3</sup>/year [2].

The characteristic feature of the Transcarpathian region is the high diversity and the highest potential of natural recreational resources in the Carpathian region, which is 7,04 ‰ [1]. The variety of recreational resources is ensured by the presence of unique natural objects and a peculiar history of their exploitation. Among the natural recreational resources, the most important are the presence of numerous mountainous landscapes with unique flora and fauna, where hiking and mountain-skiing, ecotourism and others types of recreational and tourist activity are actively developing, as well as the presence of unique mineral and thermal water sources in Ukraine, salt mines, etc. The latter ones provide the development of balneotherapy in the region and are most actively used in the summer [4].

In the structure of the natural resource potential of the Carpathian region, the Transcarpathian region is characterized by the largest indicator of forest resource potential (4,29 ‰), since forests occupy about 50% of the land stock of the region [1; 2]. The largest forests are confined to the mountain areas, in particular – Rakhiv, Tiachiv and Mizhhiria districts. Hardwood deciduous forests are the most common in

the region (over 64%), while coniferous forests make up 29% and the rest 8% are from other species [2].

In the component structure of the natural resource potential of the analyzed area the penultimate place belongs to the mineral resources  $(0,75 \ \%)$ , which occupy quite a limited number [1]. Among the mineral resources in the region there are rock salt of Solotvyno's deposit, zeolites, kaolins, gold (Muzhievske deposit), as well as fuel and energy resources – brown coal of the Ilnitsky deposit and natural gas). Fauna resources make up a relatively small proportion of the area's NRP (0,02 %) and are represented by 400 species of vertebrates, of which 74 species are mammals, 280 species of birds, 10 species of reptiles and 48 species of fish [2].

The predominance of mountainous terrain in the relief of the Transcarpathian region causes a small amount of land resources, the potential of which is the lowest among the regions of the Carpathian region and is 4,77 ‰ [3]. In the structure of the land fund of the region, agricultural land occupies only 36%, while about 50% is occupied by forests [2]. In the soil cover of the plain part of the region within the Transcarpathian lowlands, the most common are Umbric, Umbric Gleyic Albeluvisol and Gleyic Albeluvisol (Luvic Gleysol) soils, and in the river floodplains there are Histic Gleysol soils. However, in the greater mountainous part of the region is dominated by Cambisols, and mountain meadows by Cambic Umbrisols [5].

**Conclusions.** The Transcarpathian region is unique among other regions of Ukraine in the nature of natural conditions and resources, which determine the peculiar structure and features of its natural resource potential. It is characterized by the highest potential of forest resources in the country  $(4,29 \ \%)$  and one of the highest indicators of water  $(7,75 \ \%)$  and natural recreational resources  $(7,04 \ \%)$ . Instead, the potential of mineral, earth and faunistic is one of the lowest. The natural resource potential of the studied area is suitable for the development of mainly recreational and tourism activities, which has a relatively small negative impact on the environment. Thus, in addition to rationalization of forestry and water management, it is necessary to develop recreation and tourism here, taking into account the recreational and tourist capacity of natural complexes.

#### References

1. Rudenko V. P. Geography of Ukraine's natural resource potential: a textbook. Chernivtsi : Chernivtsi Nat. Univ., 2010. 552 p.

2. The nature of the Transcarpathian region / edited by K. I. Gerenchuk. Lviv : Higher School, 1981. 156 p.

3. Shabliy O. I. Geographical and geopolitical position of the Ukrainian Carpathians. *Carpathian region. Scientific studies in history, culture, tourism.* 2012. №1. Pp. 113–123.

4. Pop S. S. Natural resources of Transcarpathia. Uzhgorod : Carpathians, 2009. 340 p.

5. Kanash O. P. Soils and land resources // Complex Atlas of Ukraine. Kyiv : State Enterprise "Cartography", 2005. P. 37.