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Evaluation and optimization of the use of tourist resources of the region

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**Abstract** 

Introduction. Assessing the potential of tourist resources on the basis of sound methodology is an important step in developing measures to optimize the use of tourist potential of the region.

The aim of the study. The purpose of the study is to improve and adapt the methodology for assessing the potential of tourist resources in the region, as well as its testing on the example of Vinnytsia region of Ukraine.

Materials and methods. Based on O. Beidyk's method of scoring the tourist and recreational potential of the region and the results of a study by a number of other authors formed a method of assessing the potential of tourist resources adapted for Vinnytsia region. Methods of mathematical statistics and cartographic, as well as the method of zoning are used.

**Results.** The potential of tourist resources of administrative districts of Vinnytsia region is analyzed, the geospatial organization of tourist destinations is investigated and tourist zoning is carried out. A system of regional policy measures differentiated by selected subregions has been developed to optimize the use of tourist resources.

Conclusions. Based on the study of the geospatial organization of tourist resources of Vinnytsia region, ways to optimize them are proposed, including the development and expansion of a network of excursion routes; expansion of the network of accommodation establishments; formation of a network of medical and health institutions; updating the material and technical base of sanatoriums; improvement of transport infrastructure, in particular highways; wider attraction of foreign tourists; optimization of recreational use of the river network; intensification of development and expansion of the network of rural tourism estates.

**Key words**: tourist resources; evaluation; optimization; potential; region.

#### INTRODUCTION

In modern conditions, tourism, as well as recreation in general, belongs to the group of industries and activities that have a pronounced resource orientation. The issue of analysis of the resource component of tourism in the regional dimension is especially relevant.

Given the diverse natural tourist resources, as well as the rich historical and cultural heritage, some regions of Ukraine, including Vinnytsia region, have not only great tourist potential, but also have good opportunities for the formation and development of health, environmental, adventure destinations and cognitive tourism.

It is the assessment of the potential of tourist resources of the region for the formation and functioning of destinations in the spatial dimension and the development of recommendations for the optimization of territorial organization is an urgent task of constructive geographical research.

#### MATERIALS AND METHODS

We propose to assess the potential and geospatial organization of tourist resources in the region in terms of administrative districts on 4 criteria, each of which also contains a number of sub-criteria:

- geographical location (geopolitical, transport, settlement system);
- natural tourist resources (geomorphological, hydrological, balneological, environmental);
- historical and cultural tourist resources (architectural, event, biographical);
- infrastructure (accommodation facilities, museums, tourist routes).

The score for each of the sub-criteria is given in points (from 1 to 5), where the highest score indicates the highest level of tourist potential of the territory for a certain component of tourist resources. The basis for evaluation can be both available statistics and the results of cartographic analysis and expert assessments of the geospatial organization of tourist

destinations in the region. It should be noted that for a more objective assessment of the tourist potential of individual territories, during the processing of statistical indicators, data on cities of regional subordination were added to the indicators of the relevant administrative districts.

Our proposed methodology is based on the following main provisions:

- the component structure of the assessment is formed by generalizing and weeding out less important, given the specifics of a particular region indicators (eg, climate resources) and identifying those that most fully characterize the tourism potential of the region;
- the selection of evaluation criteria and sub-criteria also takes into account their role in shaping the tourist, rather than recreational, potential of the region, i.e. the predominant focus on meeting the needs of tourists rather than the local population;
- The primary basis for scoring by individual sub-criteria in most cases is a qualitative assessment, which involves the identification of the most important in terms of tourism facilities (resources) and study of their territorial distribution, and then a quantitative assessment, which is carried out mainly in the presence of certain facilities, rather than security indicators, which, in our opinion, allows a more objective assessment of the tourist potential of the territory.

Estimation for individual components of tourist resources is adapted in accordance with the specifics of the tourist potential of a particular region (Vinnytsia region).

The total score of the potential of tourist resources of the region (PTR) is calculated as the sum of total points for each of the 4 criteria:

$$Ptrz = GL + NTR + HCTR + I,$$

Where, GP - the total score on the sub-criteria of geographical location,

NTR - natural tourist resources.

HCTR - historical and cultural tourist resources.

and – I - infrastructure.

# **RESULTS**

According to the results of our analysis conducted in 2020 on the example of Vinnytsia region of Ukraine, the highest scores on the criterion "Geographical location" were given to administrative districts located near the state border, where large and medium-sized urban settlements, as well as transport corridors of international and of national importance - Vinnytsia, Haisynsky, Zhmerynsky, Mohyliv-Podilsky and others.

The lowest total scores according to this criterion were calculated for districts mainly in the north-eastern part of the region - Lipovetsky, Orativsky, Pogrebyshchensky, Teplitsky and others.

Based on the analysis of the provision of administrative districts of Vinnytsia region with natural geomorphological, hydrological, balneological tourist resources, as well as objects and areas of the nature reserve fund, the total score was calculated according to the criterion "Natural tourist resources". The highest values of this component of the tourist potential of the region are characteristic of the districts located along the large rivers - Mohyliv-Podilskyi, Nemyrivskyi, Khmilnytskyi, Vinnytsia, Yampilskyi, Tyvrivskyi and others.

The lowest scores according to the second criterion are typical for the Orativ, Lipovets and Bar districts, which are further away from the main hydrological objects.

The highest scores on the criterion "Historical and cultural tourist resources" were awarded to administrative districts, in which there is the highest concentration of architectural, event and biographical tourist sites and destinations formed on their basis.

Geographically, these areas are confined mainly to the central and southwestern part of the region (Vinnytsia, Zhmerynsky, Barsky, etc.). The lowest total scores according to the criterion "Historical and cultural tourist resources" were calculated for areas far from the regional center - Kozyatyn, Oratyn, Chechelnytsky.

According to the criterion "Infrastructure", the highest average scores are calculated for administrative districts with the highest concentration of accommodation establishments, museums and with popular tourist routes - Vinnytsia, Khmilnytsky, Kalynivsky, Nemyrivsky, Mohyliv-Podilsky, and the lowest - some districts with poor development - Orativ, Tyvriv, Shargorod).

After scoring the potential of tourist resources of the region in order to constructively and geographically optimize its use, it is advisable to analyze the geospatial organization of the main tourist destinations of the region and to carry out tourist zoning. Using this technique on the example of Vinnytsia region, a map was developed (Fig. 1), which according to the peculiarities of natural and historical-cultural potential of Vinnytsia region, as well as common features of functioning and location of destinations, identified 5 tourist subregions - Central, Verhnobuzkij, Prydnistrovskij, Pivnichnoshidnij, Nyzhnobuzkij.

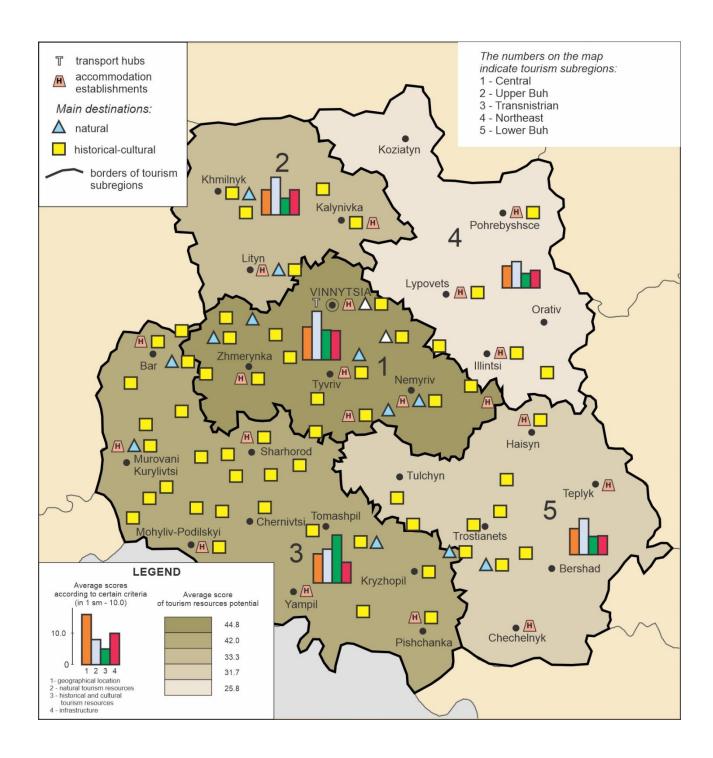


Fig. 1. Geospatial organization of tourist resources of Vinnytsia region

The selected subregions have both methodological and applied significance and can be the subject of program activities to differentiate the objectives of regional tourism policy, in particular, to optimize the use of natural and historical and cultural sites in the region.

Table 1

Priority areas for optimizing the use of tourist resources of Vinnytsia region

<b>Tourist subregions</b>	Areas of	Ways of optimization
	specialization	
Central	Health, sports,	Development of excursion routes, expansion of the
	cognitive tourism	network of accommodation establishments, updating
		of material and technical base of sanatorium-medical
		establishments, improvement of transport
		infrastructure, wider attraction of foreign tourists
Verkhnyobuzky	Medical, cognitive	Expansion of a network of excursion routes,
	tourism	improvement of a condition of highways, updating
		of material and technical base of sanatorium medical
		institutions
Prydnistrovskij	Ecological, health	Development of ecotourism routes, formation of a
	tourism, sports water	network of medical and health institutions,
	tourism, active	optimization of recreational use of the river network,
	recreation, cognitive	intensification of rural tourism
	tourism	
Pivnichnoshidnij	Cognitive, ecological,	Expansion of a network of excursion routes, creation
	sports, rural, medical	of modern medical and improving establishments,
	tourism	improvement of a condition of highways, expansion
		of a network of farmsteads of rural tourism
Nyzhnobuzkij	Ecological, cognitive,	Expansion of the network of ecotourism routes,
	sports water tourism	optimization of recreational use of the river network,
		intensification of rural tourism development

Based on the analysis of the results of the above assessment of the components of tourist resources of each of the administrative districts of Vinnytsia region, its final score was made, including in terms of selected subregions, which allowed to identify patterns of geospatial organization of tourist resources in the region and generalize tourism activities and infrastructure modernization.

According to all criteria, the highest total score is calculated for the Central subregion, which is located at the intersection of transport routes and includes the regional center; has an optimal territorial combination of geomorphological, hydrological, balneological and environmental resources; represents the territory of ancient settlement, rich in objects of historical and cultural heritage; has a developed infrastructure of accommodation facilities, museums, a network of popular tourist routes. The main advantage of the Central Tourist Subregion, of course, is that it belongs to the regional center - the city of Vinnytsia.

The lowest averages by all criteria are characteristic of the remote North-Eastern (Pivnichnoshidnij) subregion, which is characterized by a small number of attractive natural and historical and cultural tourist sites, weak opportunities for ecological and rural tourism, underdeveloped network of accommodation and museums. At the same time, the territory of this subregion can be the object of implementation of priority program measures to optimize the use of tourist potential of the region.

In general, the potential of tourist resources of the Central subregion is the highest, which is due to its geographical location and the inclusion of the regional center. The lowest potential for tourism development is characteristic of the two eastern subregions – Pivnichnoshidnij and Nyzhnobuzkij.

Based on the study of the geospatial organization of tourist resources of Vinnytsia region, we have proposed ways to optimize their use differentiated by selected subregions (Table 1).

### **DISCUSSION**

The most common in Ukrainian geography and tourism regionalism is the method of assessing the potential of tourist resources in the region proposed by O. Beidyk [1]. The method of scoring the tourist and recreational potential of the region of this author in different variations has been repeatedly used by scientists (G. Budzovich [2], N. Mandyuk [3], G. Chernova [4], etc.).

There are also successful attempts to adapt and improve this methodology for the purposes of specific regional, including structural and geographical studies. In this context, the method of assessing the level of development of the tourist and recreational complex of the region (on the example of Volyn region) formed by L. Cherchyk, I. Yerko, N. Kolenda and O. Mishchenko (2007) [5] deserves attention. The authors have developed a clear algorithm for integrated assessment of tourism development in the region based on the selection of a system of indicators and an index method. The next stages of this methodology are clustering and grouping of territories by calculated indices, as well as SWOT-analysis.

At the same time, the tasks of this methodology are broader than those set in our study, so the set of indicators and the method of their calculation in the case of assessing the tourism potential of the region will be different.

Research on assessing the recreational and tourist potential of the region was carried out on the example of Vinnytsia region (G. Chernova, 2007). In accordance with the methodology used by the author, the potential of the socio-geographical situation was assessed; aesthetic value of the territory; provision of mineral water deposits, forest, climatic, water recreational resources; the potential of environmental facilities; historical and cultural potential; transport security of the territory; provision of the territory with sanatoriums and recreation facilities, hotel enterprises, trade and restaurant establishments; recreational load of the territory. The ecological situation was also analyzed, as it can act as a limiting or stimulating factor, population and labor resources, which are the main components of the development of recreational potential of the territory [4].

The results of application of this technique allowed to fully characterize the various components of the tourist potential of the region and to study their geospatial organization. However, given the current peculiarities of the development of the tourism sector of Ukraine and the need to focus on the actual tourism, rather than recreational activities within the region, the method proposed by G. Chernova needs to be optimized.

The next result of the application of the methodology for assessing the tourist potential of the region is its tourist zoning, which allows to identify forms of geospatial organization of tourist resources of the region of different ranks. On the example of Vinnytsia region on modern methodological principles the attempt of tourist zoning was made by I. Levitska, who studied the development of tourist and recreational potential of the region as a basis for the formation of a tourist cluster [6]. However, the author set the task of identifying promising tourist areas and centers of the region, rather than a general analysis of the territorial organization of tourist activities in the region. G. Chernova also proposed her own scheme of recreational zoning of Vinnytsia region, which identified 55 elements of territorial structure on the territory of Vinnytsia region: 6 recreational districts; 13 recreation centers; 36 recreational points [4].

Taking into account the current data, based on the analysis of the results of previous studies of the tourist system of the region, based on traditional principles of recreational and tourist zoning, based on scoring and analysis of the territorial organization of tourist destinations in the region, we also offer our own scheme of tourist zoning, development of a system of measures to optimize the use of tourist resources of the region.

#### **CONCLUSIONS**

Thus, the application of the scoring methodology will allow not only to identify intraregional disparities and promising tourist areas, but also to optimize the management of tourism development at the regional level, in particular, in the context of full use of tourism opportunities for local communities.

Based on the study of the geospatial organization of tourist destinations in Vinnytsia region, the proposed ways to improve their development are differentiated by selected subregions. In particular, the following measures are proposed:

- development and expansion of the network of excursion routes;
- expansion of the network of accommodation establishments;
- formation of a network of medical and health institutions;
- updating the material and technical base of sanatoriums;
- improvement of transport infrastructure, in particular highways;
- wider attraction of foreign tourists;
- optimization of recreational use of the river network;
- intensification of development and expansion of the network of rural tourism estates.

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