DEVELOPMENT OF PRODUCTIVE POTENTIAL AND REGIONAL ECONOMY

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APPROACHES TO ASSESSING THE TOURIST AND RECREATIONAL ATTRACTIVENESS OF A TERRITORY ON THE EXAMPLE OF THE DNIPROPETROVSK AREA

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Introduction. The popularity of a particular tourist or recreational area is largely determined by its level of attractiveness. In general, attractiveness is understood as the ability of tourist objects to arouse admiration with their uniqueness and specificity, to attract with the uniqueness of their characteristics.

Areas without a pronounced tourist attraction are those in which the volume of inbound tourist flows is rather low, due to the inefficiency and irrationality of using tourist and recreational potential, as well as insufficient development of tourist infrastructure. The attractiveness of the territory is based primarily on the availability of certain resources, both natural and cultural, historical, socio-economic, as well as the availability of a developed transport infrastructure, the availability of a wide range of hotels, restaurants, etc.

However, such resources cannot always guarantee a high level of attractiveness of certain areas. Currently, there are a number of approaches to determining the tourist and recreational attractiveness of an area, for example, by using a system of interdependent indicators. Since such indicators are both quantitative and qualitative characteristics of the tourist sphere, it is more appropriate to use the dynamics of the growth rates of the indicators analysed or to use point evaluations to assess the degree of its attractiveness, as has been done in this research.

Analysis of recent research and publications. The research in the field of recreational potential of territories, development of taxonomic recreational classification was carried out by Pysarevskiy I. and Meleshko K. [1], Zapototskyi S. and Horyn I. [2], Pryhara O. et al. [3], Khlopyak S. [4], Bondarenko L. [5] and others.

A number of scholars have conducted studies to assess the tourism potential of individual regions, for example, Barvinok N. for certain hromadas of the Kirovograd Area [6], Yukhnovska Yu. for the Zaporizhzhia [7], and Mashika G. for the Carpathian region [8]. It is also worth noting the scientific work of Yukhnovska Yu., which substantiates the author's methodological approach to assessing the tourism potential of Ukraine, based on a quantitative assessment of tourism attractiveness at the country level by taking into account the content component of filling the innovation potential of tourism enterprises [9]. However, the problem of assessing and most effectively attracting the tourist and recreational potential of areas with low and medium levels of tourist attractiveness remains relevant, which led to the choice of the research topic.

The objectives of the article is to substantiate the scientific and methodological approach to the assessment, improvement and realisation of the tourist and recreational potential using the example of the Dnipropetrovsk Area.

The main material of the study. The development of tourism in areas without a pronounced tourist attraction is constrained by a number of factors, including:
– Poorly developed transport infrastructure;
– high level of seasonality in the tourism market;
– absence or insufficient number of highly attractive tourist attractions, inefficient use of tourism potential;
– low availability of accommodation facilities, poor differentiation of hotel organisations;
– underdevelopment of certain forms and segments of tourism;
– lack of or low funding for the tourism sector, weak promotion of the territorial tourism product.

Low values of the level of tourist and recreational attractiveness of territories do not indicate that the development of the tourism sector in such a region is futile and unprofitable. There are examples of unpromising territories turning into popular tourist destinations through the proper use of marketing and support from local authorities. These are industrial areas where production processes have stopped, so unusual landscapes allow us to organise extreme (MOPR Rocks, Kryvyi Rih), dark (Chornobyl), and educational tourism (Borzhava and Gayvoron narrow-gauge railways), etc.

Tourist and recreational attractiveness should be understood as the tourist potential of the territory, the exploitation of which ensures the innovative development of the territory itself, the optimal tourist load, the preservation and even restoration of natural and socio-economic resources, the achievement of economic efficiency without disturbing the ecological balance. Therefore, the tourist and recreational attractiveness of the territory cannot be realised without taking into account the principles of sustainable development, which in turn can only be guaranteed on the basis of responsible investments in tourism (Figure 1).

![Investments in the tourism industry](image)

**Figure 1. Indicators of sustainable use of tourism and recreational potential**

*Source: compiled by the author based on [11]*

One of the tools aimed at increasing the attractiveness of territories and stimulating the development of tourist segments is territorial marketing. Territorial marketing or branding is a type of activity that allows to evaluate investment attraction, the process of creating certain tourist advantages, etc. It is aimed at developing programmes that not only promote and improve the tourism business, but also attract more tourists, regulate their flows, taking into account the tourist and recreational load and relations with local communities, and provide a part of the territorial budget.

However, it is the natural complex and the availability of tourist resources that are the most important elements of the tourist and recreational attractiveness of the territories [10]. The natural complex usually includes climatic features of the territory, water resources, coastal zones, reservoirs, mineral springs, therapeutic mud, unique flora and fauna, national parks and reserves, hunting and fishing grounds, unique natural monuments, etc.
The natural tourist attraction is determined by the following factors:
- Beauty of natural sites and natural attractions;
- mild climatic parameters and comfortable temperature;
- cleanliness of rivers, lakes and other water bodies;
- favourable environmental situation.

Consider in more detail some of the approaches presented to assessing the level of tourist attractiveness of a territory. The assessment of the natural potential based on the reserves of its components, depletion and restoration in natural complexes, although quite widespread in the relevant scientific literature, does not allow to assess the recreational effect of using the natural opportunities of the territory, its attractiveness, environmental friendliness and other parameters. The solution to these problems is based on the use of a number of methods proposed by various tourism researchers, such as the integral assessment of attractiveness, based on expert judgement and statistical analysis, which takes into account natural, environmental, socio-economic factors and the conditions of the area's development by calculating a system of indicators based on weighting factors. There is also an extensive list of other tools (Table 1).

<table>
<thead>
<tr>
<th>Name of the approach</th>
<th>Tools</th>
<th>Advantages</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>Integration, scoring</td>
<td>Simplicity of calculations</td>
<td>Low confidence intervals</td>
</tr>
<tr>
<td>Normative</td>
<td>Indicator system, threshold scale</td>
<td>Limitations of the framework of the studied system</td>
<td>Inability to compare with other socio-economic systems</td>
</tr>
<tr>
<td>Integral</td>
<td>Correlation and regression analysis</td>
<td>Quantitative comparison of KPI and integral indicators</td>
<td>Complexity in calculations and in application</td>
</tr>
<tr>
<td>Functional</td>
<td>Research of individual segments of the tourism activities: hotel business, tour operators</td>
<td>Studying as blocks (elements) of individual areas (areas) of economic of economic activity</td>
<td>Absence or insufficient completeness of statistical information</td>
</tr>
</tbody>
</table>

*Source: summarized by the author on the basis of [1–4]*

The higher the saturation of the territory with natural resources, the greater the satisfaction of tourist needs. The study and assessment of tourism and recreational potential by type of resource is closely linked to the development of specific types of tourism. The growth of the attractiveness of the natural potential of the territory, and hence its tourist and recreational appeal, is facilitated by the presence of exotic, unique and uniqueness of the landscape, which affects the psychophysiological state of the tourist, his or her moral and aesthetic satisfaction.

Therefore, it is proposed to assess the tourist and recreational attractiveness of the territory using a system of interrelated indicators ($x_i$). The indicators are considered in the dynamics and are characterised by sufficient simplicity, cost-effectiveness and high information content, namely:
1. Aesthetic qualities of the territory ($x_1$).
2. Mineral water reserves ($x_2$).
3. Forests ($x_3$).
4. Climatic conditions during summer and winter ($x_4$).
5. Water pollution level ($x_5$).
6. Ratio of protected areas to the total area of the region ($x_6$).
7. Concentration of historical and cultural attractions ($x_7$).
8. Traffic density on asphalt roads ($x_8$).
9. Availability of hotels and restaurants ($x_9$).
10. Recreational load of the territory depending on the type of landscape ($x_{10}$).

Taking into account the above indicators, the level of tourist and recreational attractiveness of the territory (TRAL) can be calculated as follows:

$$TRAL = \frac{1}{n} \sum_{i=1}^{10} x_i$$  \hspace{1cm} (1)$$

The interpretation of the assessed level of tourist and recreational attractiveness of the territory can be carried out according to the appropriate scale (Table 2).
Consider the elements of the ecotourism potential of the Dnipropetrovsk Area [12; 13]. It can be concluded that the highest potential districts have the following districts:

1) Dnipro Raion (the area of recreational territories (RT) is 1,056 thousand ha; the area of the nature reserve fund (NRF) – 10.231 thousand hectares); major facilities: Dniprovsko Orilskyi Nature Reserve, Kilchinsky Nature Reserve, "Urochyshe Yartsevo" Forest Reserve, complex natural monument "Uróchyshche ‘Lelíia’’;

2) Novomoskovsk Raion (RT – 0.476 thousand hectares; NRF – 18.218 thousand hectares); main objects: Pryorilskyi Nature Reserve, Komarivshchyna Nature Reserve, Bálka Bandúrka Botanical Reserve, Solonyi Lyman Landscape Reserve;

3) Kryvyi Rih Raion (RT– 0.39 thousand hectares; NRF – 4.589 thousand hectares); main objects: Chervona Balka Pivnichna Landscape Reserve, Inhulets Steppe Landscape Reserve, Kamianske Coastal and River Complex Landscape Reserve, MOPR Rocks Geological Nature Monument, Kryvyi Rih Botanical Garden of the National Academy of Sciences of Ukraine.

This list includes only objects of the nature reserve fund and recreational purposes of national importance, but there are many objects of local importance in other raions of the area (in particular, in the Synelnykove and Pavlohrad Raions). It is also worth noting that some zakazniks or reserves cover the territories of several districts at once (for example, the Dniprovsko Orilskyi Nature Reserve is located not only in the Dniprovskyi Raion, but also in the Kamianske Raion).

A comprehensive assessment of the tourist and recreational attractiveness of the Dnipropetrovsk Area was carried out according to 10 proposed criteria, namely: assessment of the aesthetic qualities of the territory, assessment of mineral waters, assessment of forests, assessment of climatic conditions, assessment of water bodies, assessment of nature reserves, historical and cultural potential, transport density of asphalt roads, provision of hospitality facilities, assessment of recreational load (Table 3).

Using formula (1), it is possible to calculate the level of tourist and recreational attractiveness of the Dnipropetrovsk Area (TRAL). The result is TRAL=0.56, which, according to Table 1, corresponds to the average level.

Nevertheless, Dnipropetrovsk Area is a geopolitically and geoculturally significant region, a major transport and transit hub, and an area with significant natural resources. The unique location, natural conditions and historical heritage of the Dnipropetrovsk Area make it possible to develop various types of both domestic and inbound tourism. Favourable conditions for the development of health tourism are determined by the healing properties of the Solonyi Lyman resort and mineral water reserves.

The Dnipropetrovsk Area is home to many unique and rare plant species, some of which are relics of ancient geological epochs, which also allows for the development of ecological, educational and scientific tourism. The presence of numerous archaeological and historical sites in the region contributes to the development of scientific and educational tourism. In addition, the region has significant potential for organising birdwatching. The head of the Dnipro Society for the Protection of Birds notes that in recent years this activity has become increasingly popular, especially among young people, and will only gain popularity in Ukraine in the future.

The territory of the Dnieper Rapids Regional Landscape Park [15] is attractive for birdwatchers. Throughout the year, more than 100 species of birds can be observed here, including many Red Book birds such as peregrine falcon, skua, grebe, and rare species of northern gulls. From a birdwatching perspective, the Samara Forest, Protovchanski Plains, Obukhiv Forest and Solonyi Lyman Lake in Novomoskovsk Raion are also attractive as a landscape reserve where a huge number of birds nest and stop during migration.
### Criteria for assessing the tourist and recreational attractiveness of the Dnipropetrovsk Area

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Interpretation of points</th>
<th>Assessment</th>
<th>Points</th>
<th>Potential growth opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x_1$</td>
<td>Landscapes, exoticism, uniqueness</td>
<td>Plains, densely forested areas</td>
<td>Plains</td>
<td>1 Impossible to enlarge</td>
</tr>
<tr>
<td>$x_2$</td>
<td>Over 1000 m³/day/km²</td>
<td>100-1000 m³/day/km²</td>
<td>&lt;100 m³/day/km²</td>
<td>1 Impossible to enlarge</td>
</tr>
<tr>
<td>$x_3$</td>
<td>40-60%</td>
<td>15-40%; over 60%</td>
<td>Less than 15%</td>
<td>2.7% 1 Impossible to enlarge</td>
</tr>
<tr>
<td>$x_4$</td>
<td>Summer</td>
<td>Over 100 days t&gt;15°C</td>
<td>80-100 days t&gt;15°C</td>
<td>Less than 80 days t&gt;15°C</td>
</tr>
<tr>
<td>$x_5$</td>
<td>Winter</td>
<td>Over 110 days t&lt;0°C</td>
<td>100-110 days t&lt;0°C</td>
<td>Less than 100 days t&lt;0°C</td>
</tr>
<tr>
<td>$x_6$</td>
<td>85+% uncontaminated water bodies of universal use</td>
<td>50-85% uncontaminated water bodies of universal use</td>
<td>Less than 50% uncontaminated water bodies of universal use</td>
<td>52%</td>
</tr>
<tr>
<td>$x_7$</td>
<td>More than 18 landmarks per 100 km²</td>
<td>8-18 landmarks per 100 km²</td>
<td>Less than 8 landmarks per 100 km²</td>
<td>19 landmarks per 100 km²</td>
</tr>
<tr>
<td>$x_8$</td>
<td>Over 0.42 km² per km²</td>
<td>0.29-0.42 km² per km²</td>
<td>Less than 0.29 km² per km²</td>
<td>0.33 km² per km²</td>
</tr>
<tr>
<td>$x_9$</td>
<td>Over 30 per 100 km²</td>
<td>10-30 per 100 km²</td>
<td>Less than 10 per 100 km²</td>
<td>8 per 100 km²</td>
</tr>
<tr>
<td>$x_{10}$</td>
<td>Mountainous areas</td>
<td>Hilly, highland areas</td>
<td>Plain, lowland areas</td>
<td>1 Impossible to enlarge</td>
</tr>
</tbody>
</table>

**Source**: developed by the author

Particular attention should be paid to the numerous socio-economic problems in the region, namely:

- Depreciation of fixed assets of the hotel and restaurant complex and the service sector as a whole (by more than 60%), while enterprises do not have the financial resources to modernise and introduce the latest technologies;
- unemployment, an increase in the number of people below the poverty line, and a decline in effective demand;
- negative ratio of inbound and outbound tourism;
- deterioration of the demographic situation, exacerbated by the massive out-migration of the working population abroad.

It is worth emphasising the imperfections of regional interbudgetary relations: in terms of gross regional product, Dnipropetrovsk Area annually ranks among the top regions of Ukraine (i.e., its contribution to the state budget revenue is one of the largest), while in terms of counter-flows (subventions and grants) it is the last in Ukraine.

Based on this, the proposal for the development of tourism enterprises and the activation of the tourism and recreational potential of the Dnipropetrovsk Area can be considered not only in the economic but also in the social context. This will contribute to solving both economic and painful social problems of tourism businesses and the region as a whole. In general, each territory fulfils many different functions for its inhabitants and guests, which can become the basis for distinguishing territorial tourism products. However, in any given
place or region, there is usually not a single universal tourist product, but several or even several dozen specific products, which partly reflect a kind of unified tourist product of the region.

It is important to identify the main types of tourism that will be included in a single tourism product of the Dnipropetrovsk Area. To do this, it is necessary to visualise its tourist and recreational attractiveness on the corresponding diagram (Figure 2).

![Figure 2. Structural components of the level of tourist and recreational attractiveness of the Dnipropetrovsk area](source)

It should be noted that the strongest aspects of the tourist and recreational attractiveness of the Dnipropetrovsk Area are as follows: component No. 4 – favourable climatic conditions in winter and summer, No. 5 – number and condition of water bodies, No. 6 – ratio of natural and protected resources, No. 7 – historical and cultural potential, No. 8 – sufficiently developed transport infrastructure. It should also be noted that components of the tourism and recreational potential No. 1-4 and No. 10 cannot be improved for objective reasons, while all the other components, which are the strengths of the Dnipropetrovsk Area, have room for improvement (No. 5, 6, 8) or are in a satisfactory condition (No. 4, 7).

The basis of the unified tourist product of a given area is its tourist and recreational potential, which is primarily based on the availability of certain resources, which are usually the hallmark of the region [16]. It is the resources that determine the types of tourism that are practised in the region. However, the single tourism product cannot be considered as a simple sum of all the tourist attractions and services offered in a given area. It is usually a combination of a greater or lesser number of tourist products that form a single, homogeneous whole. For this reason, certain efforts should be made in its creation (creation of infrastructure, improvement of transport accessibility, development of additional services, etc.), but above all, effective management of each element is necessary [17; 18].

It should be noted that taking into account the structure of tourist and recreational attractiveness of the Dnipropetrovsk Area and the possibility of further development and realisation of its potential, the most interesting types of tourism from the point of view of a unified tourist product can be green or eco-tourism in combination with historical, cultural, ethnographic, archaeological and geological ones [16]. The emphasis can be put on the preservation of glorious Cossack traditions, natural, historical and cultural heritage for future generations on the basis of sustainable development. All in all, such a unified tourist product can claim a rather significant segment of the regional tourism market, represented by conscious and responsible consumers [5].

Thus, a unified tourist product is a specific, geographically defined product, consisting of a number of elements of the territorial tourist potential, united by a single objective aimed at the qualitative satisfaction of
tourist needs, characterised by originality, uniqueness and market attractiveness. The creation and implementation of a unified tourist product in a region with a low or medium level of tourist attractiveness offers a number of advantages to the various groups of participants in this process, namely:

- Attractiveness of the territory for tourists is growing;
- residents get new jobs due to increased tourist flow – employment multiplier;
- tour operators, hotel and restaurant businesses, and the entertainment sector are seeing an increase in the number of service consumers, which is driving growth in the investment attractiveness of the tourism sector.

The type of tourism determines the communication system, the set of tourist services and goods. Thus, if the territory has a potential of natural resources, the system of infrastructure creation should have a nature-oriented component: accommodation facilities are tourist bases, rest houses; there is a specificity in the formation of food and leisure systems. In the complex of basic and additional services of the tourist product, services of a nature-oriented profile will have the largest specific weight among all other types of tourism. Since the individual components of the unified tourist product fulfil different roles, it is necessary to analyse them according to structural and functional categories. This means that the composition of the components satisfying the different needs of tourists must be related to the constant main need, i.e., the need for recreation in nature.

**Conclusions.** It was found that despite the fact that the Dnipropetrovsk Area is a geopolitically and geoculturally important region, a large transport and transit hub, an area with significant natural resource reserves, its calculated level of tourist and recreational attractiveness (TRAL) on the basis of 10 components is 0.56, which corresponds to the medium level. Based on the analysis of the socio-economic potential of the Dnipropetrovsk Area, strengths and weaknesses for the future development of the region have been identified.

The strongest aspects of the tourism and recreation potential of the Dnipropetrovsk Area are favourable climatic conditions in winter and summer, the number and condition of water bodies, the presence of natural and protected resources, a rich historical and cultural potential, a sufficiently developed transport infrastructure; all these components either have opportunities for improvement or are in a satisfactory condition.

The main components of the combined tourism product of the Dnipropetrovsk Area were determined by such components as green or eco-tourism in combination with historical, cultural, ethnographic, archaeological and geological tourism, which together can form a sufficient segment of the regional tourism market. It is also important to pay attention to branding based on the preservation of Cossack traditions, the potential of natural resources and sustainable development.

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Approaches to assessing the tourist and recreational attractiveness of a territory on the example of the Dnipropetrovsk area.

There are significant differences between sectoral zoning and planning schemes for recreation and tourism development areas in Ukraine. The principles established in the implementation of sectoral recreation and tourism zoning are not always consistent with the normative legal acts regulating the spatial planning system. The available results of scientific and applied research testify to the significant recreational and tourist potential of our country, which is formed by all available natural, historical, cultural and socio-economic resources. The formation of recreational, tourist, resort and health complexes for the purpose of effective and rational use of nature is relevant in today's uncertain socio-economic conditions. During the research the following methods of scientific knowledge were used: theoretical generalisation, factor analysis, economic-mathematical modelling, graphical, analytical and statistical methods. A methodology is proposed for assessing the level of tourist and recreational attractiveness of a territory, based on the consideration of ten criteria, the interpretation of which is carried out according to the appropriate scale. The methodology is characterised by sufficient simplicity, economy, high information capacity and is based on open statistical data. It was found that the estimated level of tourist and recreational attractiveness of Dnipropetrovsk Area is average. This indicates insufficient use of the existing tourist and recreational potential. It is suggested that the branding of the region should be based on the concept of preservation of Cossack traditions, natural resource potential and sustainable development.

Key words: tourist and recreational attractiveness, potential, tourist resources, infrastructure, attractions, assessment, ecotourism, birdwatching.