Evaluation of Recreational Potential of a Region for Drawing up Territorial Planning Schemes (Using the Example of Novosibirsk Oblast)

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Abstract. Under present-day conditions, the programs of regional and local socio-economic development include land use planning strategies for tourism development. Therefore, recreation zones along with land plots for recreational and tourist sites construction should be integrated into the territorial planning schemes. This is what makes the topic of this scientific research currently important and determines its practical relevance. The purpose of the study is to assess the recreational potential of municipal entities of Novosibirsk Oblast and to elaborate recommendations for drawing up the territorial planning schemes that could be used for recreation and tourism development in the region. The article discusses theoretical and practical issues of assessing the recreational potential of the area with a view to draw up territorial planning schemes. The issues of assessing the recreational potential to select certain strategic priorities for the socio-economic development at the regional and local level have not yet been properly investigated. When assessing the resource potential, there is the problem of choosing the estimation methods, criteria and indicators. The authors propose to use a comprehensive strategy to assessing the recreational potential of the area with a component-based and integral estimate of resources. When drawing up the territorial planning schemes, the quoted results of the recreational potential assessment of the municipal entities of Novosibirsk Oblast have made it possible to identify the most well-favored areas and provide recommendations on specific land use and composition of themed tourist maps. The strategy and results of the recreational potential assessment were used in the elaboration and rationalization of the tourism-dedicated section in the text of the Strategy of the Socio-Economic Development of Novosibirsk Oblast for the Period through to 2030. The findings are relevant for various government agencies, as well as for those interested in land use planning for recreation and tourism purposes.

1. Introduction

The relevance of the research is based on the need to assess the recreational potential of the regions of the Russian Federation to reach the goals of strategic development of the areas. It is commonly known that recreation and tourism development helps to ensure recreation and health promotion of the nation,
improving the quality of life. The activities associated with recreation and tourism development fully comply with the objectives of the efficient use of natural resources within the concept of sustainable development of the area. They have significant advantages over resource-intensive economic branches and are characterized by no direct use of natural-resource wealth, short payback period, created jobs, increasing regional revenue, infrastructure development, land improvement, etc. Recreation and tourism are promising development trends in most of the regions of the Russian Federation. In this regard, the issues of territorial planning in view of developing recreation and tourism in the Russian Federation are of considerable practical importance and relevant for regional and municipal government agencies.

The purpose of the study is concerned with the assessment of the recreational potential of Novosibirsk Oblast municipal entities, and the elaboration of recommendations for drawing up territorial planning schemes that could be used for recreation and tourism development in the region.

2. Methods and materials

To rationalize the strategic intents in territorial planning, including recreation and tourism development, an unbiased assessment of the area’s resource potential is required. According to the Urban Planning Code of the Russian Federation, territorial planning is seen as a specification of the land category stated in the territorial planning documents based on a combination of social, economic, environmental and other factors in order to ensure sustainable growth of an area, provide for utility, transport and social infrastructure development, and give due regard for the interests of citizens, citizen groups, the Russian Federation, constituent entities of the Russian Federation, and municipal entities [1]. When specifying the functions of land areas, their resource potential is used as benchmark.

A recreational potential is a combination of natural, cultural, historical and socio-economic conditions for arranging recreational activities in a designated area, which are necessary for recreation and health-improvement of the local population. The recreational potential is also exploited in tourist activities associated with the reception and rendering of services to Russian and foreign tourists [2].

The assessment of the land area recreational potential has its own characteristic aspects; in practice, it is carried out using different techniques depending on the target and extent of the assessment. The list of assessment criteria and indicators is unregulated and is normally specified in the process of assessment. Russian researchers have done a thorough evaluation of the region’s natural recreational resources (climate, hydrographic characteristics, orographic conditions, flora and fauna, hydro mineral and unique natural resources with healing properties, etc.), as well as historical and cultural resources (archaeological, historical, architectural, etc.) [3]. When assessing the components of the resource and recreational potential, the researchers use various approaches, such as biomedical, technological, environmental, geoinformational, etc. The assessment takes into account the unique character of sites, their accessibility and state of repair, integration and density in the region or municipal entity and so on.

It should be noted that the theoretical and practical issues of assessing the recreational potential to select certain strategic priorities for the socio-economic development at the regional and local level have not yet been properly investigated. When assessing the resource potential, there is the problem of choosing the estimation methods, criteria and indicators.

As part of the research, the authors studied the special features of territorial planning and urban development in the Russian Federation [3-9] and foreign countries [10-12], and characterized the estimate of the resource potential for recreation and tourism development. The information background of the study includes program-based documents and the official websites of the municipal administrations and the authorities of the Federation’s constituent entities, where the territorial planning schemes are found. The authors also used the recreational potential estimations of the Novosibirsk Oblast territories, and maps of areas with the recreational potential and specially protected natural reservations (SPNR).

The need to develop territorial planning schemes in the constituent entities of the Russian Federation and municipal districts is defined by the Urban Planning Code of the Russian Federation
[1], since in accordance with the applicable legislation, central and local authorities may not handle the land plots having no approved territorial planning schemes. Development and adoption of territorial planning schemes is a new stage in the strategic development of the regions. Territorial planning schemes are a sort of a projection for the strategies of the land area socio-economic development, and long-term target programs. They are required for the authorization of federal, regional, transregional and interindustry development priorities. Territorial planning schemes are designed to establish a sustainable and efficient use of the resource potential of the land areas. Creation of the territorial planning schemes involves formulating certain proposals for the recreation and tourism development [13, 14]. Sections “Tourism and Recreation” are included in the territorial planning schemes, plot plans, tourist maps and project design documents.

The issues of the recreational potential assessment and territorial planning for tourism development are discussed in the works of E.N. Byvykina, G.M. Dzyuina, E.G. Alpatskaya, N.N. Girovka, V.M. Khodachek, M.Yu. Elsukova, A.N. Dunets, V.S. Revyakina, L.I. Kulakova, V.A. Osipov, V.B. Zharnikov and others [1, 2, 4, 7, 13-15]. Distinctive approaches to assessing the resource potential of land areas were shaped within tourism resource studies and tourism economics.

The dynamic development of tourism in the Russian Federation over the past 30 years has led to the need to reassess the resources available in the existing tourist regions and to identify the opportunities for developing new regions with high potential. Analysis of the literature suggests that the problem of assessing the resource and recreational potential for the purposes of territorial planning has not been properly studied. Evaluation of individual components of the tourist and recreational potential involves a certain difficulty since the researchers often use subjective assessment methods (e.g. evaluation of scenic beauty using rating scales) [17-20].

It should be noted that it is rather challenging, in some cases even impossible, to evaluate economic efficiency of using tourism and recreational resources. The elaboration of strategies for the socioeconomic development of land areas is supported by cost effectiveness indicators, which manifest themselves in the growth of tourist flows and volume of rendered services, as well as in the increasing number of people employed in the industry. It is even more challenging to estimate the economic efficiency of recreational activities. In practice, the experts apply such indicators as the number of consumed recreational services, frequency of obtaining such services and time associated therewith, a reduction in the number of days away from work of recreational travelers who improved their health, etc.

In our opinion, territorial planning requires the use of a comprehensive strategy and employment of a system of integrated indicators applicable to the components of tourist and recreational potential, which accounts not only for the existence of such potential, but also for the efficiency of its use (organizational, managerial, investment and institutional conditions, quantity and profile of consumer demand) [21].

Using Novosibirsk Oblast as an example, the recreational potential of the area was assessed and recommendations were provided for drawing up territorial planning schemes regarding functional zoning of land of the municipal entities according to the tourist and recreational activity types and defined strategic priorities. Owing to the importance of strategic decision-making regarding the land functional zoning, a comprehensive strategy was used to assess the potential of natural and climatic, historical and cultural, and socio-economic resources [16, 21].

Novosibirsk Oblast is a region with a high potential for economic growth rooted in the advantageous geographical location, transport interchange, and the region’s independence from the raw material base. The region economy is rather diversified, with almost any type of economic activity available. In 2018, the service sector share in the Novosibirsk Oblast economy reached 38.1%. The development priorities of the regional economy are real estate operations, provision of rental and other services, as well as research and development, transport and communications, wholesale and retail trade, and manufacturing. Tourism is not currently a priority of the socio-economic development of the region, but it has certain development potential in the regional center, Novosibirsk, and some municipal districts of the region, which is stated in the Strategy for Socio-Economic Development of
the Region for the Period through to 2030 (3-5.0.4) and other strategically important program documents [22-24].

The tourist and recreational complex of Novosibirsk Oblast includes over 300 accommodation facilities and 42 recreational centers, 28 sanatorium-and-spa institutions, 86 children’s health camps, 72 museums, 26 theaters, 9 ski resorts and other facilities. The region is home to 2268 historical and cultural sites, 26 SPNRs and 53 natural landmarks. Due to the environmental conditions, recreation and tourism in Novosibirsk Oblast are seasonal in nature, which hinders year-round service and operation performance improvement of places of interest. This condition should be taken into account when planning the infrastructural facilities location and assigning the recreation zones. Novosibirsk Oblast has substantial and diverse potential for the domestic and inbound tourism development. However, this potential is distributed unevenly, whereby the development of recreation and tourism is locational in nature [25-28].

3. Findings
A comprehensive assessment of the recreational potential of the Novosibirsk Oblast municipal entities was carried out in compliance with the method described in the monograph Methodological Framework for Assessing the Resources for Tourism Development in the Region [16]. The estimation of indicators revealing the potential was made for groups of climatic, historical, cultural and socio-economic resources. The results of the natural recreational potential assessment have shown that Zdvinsky, Iskitimsky, Maslyaninsky, Novosibirsky, Ordynsky, Toguchinsky, Chanovsky, Chistoozerny, and Chulymsky district along with the town of Berdsk have the best indicators (Figure 1). The natural potential contributes to the development of health-improving, recreational, adventure, as well as ecological, sports, extreme, hunting and fishing tourism.

Novosibirsk and Berdsk, as well as Vengerovsky, Zdvinsky, Kolyvansky, Kuybyshevsky, Moshkovsky, Novosibirsky, Ordynsky, and Suzunsky districts have the highest potential of historical and cultural resources (Figure 2). Their local conditions aid the development of cultural and educational tourism (ethnographic, archaeological, historical, architectural, etc.).

![Nature and Climate Potential of Novosibirsk Oblast](image-url)

**Figure 1.** Nature and Climate Potential of Novosibirsk Oblast.
Figure 2. Historical and Cultural Potential of Novosibirsk Oblast.

The resulting indicators of the recreational potential made it possible to group the municipal entities according to the degree of resources development and investment appeal [28, 29].

– Group 1 of municipal entities includes Berdsk and Novosibirsk, as well as Novosibirsk district. These territorial entities have the highest level of investment appeal for the tourism and recreation development. For a more intensive development of recreation and tourism, it is necessary to coordinate the industry programs implementation, stimulate small business development and improve infrastructure.

– Group 2 of municipal entities includes Kolyvansky, Iskitimsky, Chanovsky, Ordinsky, Suzunsky, Moshkovsky, and Toguchinsky districts along with the town of Iskitim. These entities have a sufficiently high level of investment appeal for the recreation and tourism development. A jump-start for the industry can be ensured through the implementation of the industry program activities, construction of new infrastructure, stimulation of the small business development and promotion of the tourism opportunities of the areas.

– Group 3 of municipal entities includes Kuybyshevsky, Zdvinsky, Karasuksky, Maslyaninsky, Krasnozersky, Vengerovsky, Chistoozerny, Chulymsky, Bolotinsky, Kargatsky, Kupinsky, Barabinsky, and Dovolensky districts, and two urban districts – Ob and Koltsovo. These entities are characterized by a low level of investment appeal due to their remoteness from the regional center. Their development could be ensured providing the improvement of transport support, establishment of industry infrastructure, implementation of long-term target programs and generation of consumer demand.

– Group 4 of municipal entities includes Ust-Tarsky, Kochenevsky, Cherepanovsky, Ubinsky, Severny, Tatarsky, Kyshtovsky, Kochkovsky, and Bagansky districts. These entities are characterized by a low level of investment appeal. The recreation and tourism development will be possible only providing the establishment of transport communication, construction of infrastructural and tourist facilities, generation of demand for tourist and recreational services.
4. Discussion
While it has become apparent that the theoretical background and practical aspects of assessing the recreational potential of land areas for drawing up territorial planning schemes have not been properly investigated, we can assume that to solve the problem of assessing the resource potential of the area, estimation methods will ultimately be improved and the assessment criteria and indicators will be further defined.

The results of the recreational potential assessment in the municipal entities of Novosibirsk Oblast were presented to the public council of the Ministry of Economic Development of Novosibirsk Oblast, and were used by local authorities in the development of the Strategy for Socio-Economic Development of Novosibirsk Oblast for the Period though to 2030. Moreover, the assessment of the Novosibirsk Oblast recreational potential is required for establishing a regional tourist geographic information system, tourist geoportals and tourist information centers.

5. Conclusion
In summary, the assessment of the recreational potential of the Novosibirsk Oblast municipal entities found the areas with the highest level of investment appeal for the recreation and tourism development (Berdsk and Novosibirsk, Novosibirsky, Kolyvansky, Iskitimsky, Chanovsky, Ordynsky, Suzunsky and other districts). Recreational potential should be taken into account when drawing up territorial planning schemes for municipal entities in particular, and the region in general. This is necessary for the purposes of functional zoning, and composition of themed tourist maps included in the project documentation of strategies and programs for the socio-economic development of the regions of the Russian Federation. Even if the region is not tourist-oriented, it is necessary to identify some facilities, recreation zones, and areas with favorable environmental conditions for the implementation of recreational activities. By identifying the well-favored areas for the recreation and tourism development, it is possible to arrange a sustainable, considerate and efficient use of the resource potential, increase its investment appeal and ensure economic growth.

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