

TOURIST AND RECREATIONAL POTENTIAL OF THE STEPPE ZONES OF THE AZOV COAST WITHIN THE KRASNODAR REGION (RUSSIA)

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Abstract

This study explores the tourism and recreational potential of Russia's Azov coast in the Krasnodar region. The research aims to comprehensively describe the area's natural recreational resources, identify limiting factors, and evaluate prospects for tourism and recreation. Multiple sources, including government reports, academic publications, and tourism industry reports, were reviewed to collect data on the region's history, environment, and socio-economic aspects. The Azov coast boasts sandy and shell beaches, spits, peninsulas, estuaries, mineral waters, and a favorable climate. These resources offer various recreational possibilities. Nevertheless, limiting factors include seasonality, underdeveloped infrastructure, political and epidemiological challenges, insufficient attention to the region's heritage, and high recreational demand. In conclusion, this study underscores the importance of the Azov coast's diverse natural resources for year-round tourism development. It emphasizes the need to address factors like shore protection, infrastructure development, and heritage promotion for sustainable tourism growth. These efforts can enhance the region's economic stability and reduce its reliance on the Black Sea area.

Keywords: Regional development; Natural recreational resources; Infrastructure.

POTENCIAL TURÍSTICO E RECREATIVO DAS ZONAS DE ESTEPE DA COSTA DE AZOV NA REGIÃO DE KRASNODAR (RÚSSIA)

Resumo

Este estudo explora o potencial turístico e recreativo da costa russa de Azov, na região de Krasnodar. A pesquisa visa descrever de forma abrangente os recursos recreativos naturais da área, identificar fatores limitantes e avaliar as perspectivas de turismo e recreação. Múltiplas fontes, incluindo relatórios governamentais, publicações acadêmicas e relatórios da indústria do turismo, foram analisadas para recolher dados sobre a história, o ambiente e os aspectos socioeconômicos da região. A costa de Azov possui praias de areia e conchas, espetos, penínsulas, estuários, águas minerais e um clima favorável. Esses recursos oferecem diversas possibilidades recreativas. No entanto, os fatores limitantes incluem a sazonalidade, infraestrutura pouco desenvolvida, desafios políticos e epidemiológicos, atenção insuficiente ao patrimônio da região e elevada procura recreativa. Em conclusão, este estudo sublinha a importância dos diversos recursos naturais da costa de Azov para o desenvolvimento do turismo durante todo o ano. Enfatiza a necessidade de abordar fatores como a proteção da costa, o desenvolvimento de infraestruturas e a promoção do patrimônio para o crescimento sustentável do turismo. Estes esforços podem reforçar a estabilidade econômica da região e reduzir a sua dependência da região do Mar Negro.

Palavras-chave: Desenvolvimento regional; Recursos naturais de lazer; A infraestrutura.

POTENCIAL TURÍSTICO Y RECREATIVO DE LAS ZONAS ESTEPARIAS DE LA COSTA DE AZOV DENTRO DE LA REGIÓN DE KRASNODAR (RUSIA)

Resumen

Este estudio explora el potencial turístico y recreativo de la costa rusa de Azov en la región de Krasnodar. La investigación tiene como objetivo describir de manera integral los recursos recreativos naturales del área, identificar factores limitantes y evaluar las perspectivas para el turismo y la recreación. Se revisaron múltiples fuentes, incluidos informes gubernamentales, publicaciones académicas e informes de la industria turística, para recopilar datos sobre la historia, el medio ambiente y los aspectos socioeconómicos de la región. La costa de Azov cuenta con playas de arena y conchas, asadores, penínsulas, estuarios, aguas minerales y un clima favorable. Estos recursos ofrecen diversas posibilidades recreativas. Sin embargo, los factores limitantes incluyen la estacionalidad, la infraestructura subdesarrollada, los desafíos políticos y epidemiológicos, la atención insuficiente al patrimonio de la región y la alta demanda recreativa. En conclusión, este estudio subraya la importancia de los diversos recursos naturales de la costa de Azov para el desarrollo turístico durante todo el año. Enfatiza la necesidad de abordar factores como la protección de la costa, el desarrollo de infraestructura y la promoción del patrimonio para el crecimiento del turismo sostenible. Estos esfuerzos pueden mejorar la estabilidad económica de la región y reducir su dependencia de la zona del Mar Negro.

Palabras clave: Desarrollo regional; Recursos naturales recreativos; Infraestructura.

1 INTRODUCTION

Tourism and recreational potential are understood as a set of natural, cultural, historical and socio-economic prerequisites for organizing tourist and recreational activities in a certain area (Baiev et al., 2023). Often, the presence of any unique objects, natural monuments, architecture on the territory, which, are of interest not only to local residents is also called recreational potential (Otcheskiy et al., 2023).

It should be noted that the recreational potential of the

territory is not stable, it is changeable and depends on many natural and anthropogenic factors, as well as on the characteristics of sociocultural formation within the boundaries it is located (Volkova et al., 2023). According to Petrina et al. (2022), natural recreational resources are the most important element of the recreational potential.

A special feature of the structure of the tourist and recreational complex is the high dependence of the efficiency of integration of objects of the tourism industry (service providers and enterprises of the tourism industry) and the



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resource base, infrastructure of the territory and factors for the development of tourist and recreational activities (Slinkova et al., 2022).

The research aimed to provide a qualitative and comprehensive description of the natural recreational resources present in the Azov coast, as these resources form the basis for tourism and recreational activities. This is first step of a more complex and integrated planning. By identifying and understanding these resources, the authors can analyze their potential for attracting tourists and supporting recreational pursuits. Additionally, the study seeks to determine the limiting factors that affect the tourist and recreational development of the area, which can inform future planning and decision-making processes.

Thus, the goal of the research was to study the current situation of the tourist and recreational potential of the steppe zones along the Azov coast and provide insights into the natural resources, limiting factors, and prospects for tourism and recreational activities in the region.

2 LITERATURE REVIEW

Prior research on the tourism and recreational potential of the Azov coast within the Krasnodar region has offered valuable insights into the region's unique characteristics, natural resources, and limiting factors affecting tourism and recreation. These studies have contributed significantly to understanding the multifaceted dynamics of the area.

Several studies have examined the natural resources that form the foundation of tourism and recreation along the Azov coast. Karpova and Khodykina (2016) highlighted the presence of sandy and shell beaches, spits, peninsulas, estuaries, and mineral waters in the region. These natural attributes were identified as key factors attracting tourists. Additionally, Volkova and Minenkova (2017) emphasized the therapeutic silts and muds found in adjacent estuaries, adding an essential dimension to the area's recreational potential.

The Azov coast's climatic characteristics have also been a subject of research. Kudelya et al. (2014) provided insights into the region's moderate solar activity, warm sea temperatures, and overall climate, making it conducive to tourism throughout the year. The Azov coast's mild winters and favorable climatic conditions were identified as assets for attracting tourists (Litvinskaya, 1984).

Research by Kosyan and Krylenko (2014) underscored the significance of the Dolgaya Spit as a landscape natural monument of the Krasnodar region. These unique geographical features contribute to the aesthetic appeal of the Azov coast.

In terms of economic considerations, the studies of Volkova et al. (2016a) and (2016b) highlighted the diverse industries within the coastal zone, including agriculture and mineral resources, which have implications for the region's development and tourism infrastructure.

However, several limiting factors have been identified that affect tourism and recreation in the Azov coast. These factors include seasonality (Volkova et al., 2019), underdeveloped tourism infrastructure, political considerations stemming from the annexation of Crimea (Mishchenko and Mishchenko, 2004), epidemiological

factors such as the COVID-19 pandemic, insufficient attention to the region's natural and cultural heritage, and high recreational load (Khokhlova et al., 2017).

Collectively, these previous studies have laid the groundwork for understanding the tourism and recreational potential of the Azov coast. They have provided valuable information on the region's natural resources, climatic conditions, and economic activities. Furthermore, these studies have highlighted the challenges and limiting factors that need to be addressed for the sustainable development of tourism and recreation in the area. Building upon this foundation, the current research aims to offer a comprehensive analysis of these factors, focusing on the potential for year-round tourism and strategies for overcoming the identified limitations.

3 METHODS

The study was conducted in 2022 on the basis of P.P. Shirshov Institute of Oceanology and Kuban State University.

To achieve their research objectives, the authors employed a range of data collection methods to provide a comprehensive description of the natural recreational resources and identify the limiting factors affecting tourism and recreation in the Azov coast within the Krasnodar region.

The main research method was literature review. Authors examined a range of existing sources, including government reports, academic publications, and tourism industry reports. This data collection method enabled the researchers to gather valuable information about the historical development, environmental features, and socio-economic aspects of the Azov coast.

The process of selecting studies for this research was rigorous and systematic, designed to ensure the inclusion of highly relevant and credible sources. The criteria for the selection of studies were as follows:

Relevance to the Azov Coast: Studies were primarily chosen based on their direct relevance to the Azov coast within the Krasnodar region, Russia. This criterion ensured that the selected studies provided insights specific to the geographical area of interest.

Publication Source: Preference was given to studies published in reputable and peer-reviewed academic journals, government reports, and authoritative reports from the tourism industry. This criterion aimed to include studies that underwent a thorough evaluation process for research quality and validity.

Temporal Relevance: Studies considered for inclusion were predominantly those published within the last decade (2012-2022). This temporal scope aimed to ensure the incorporation of the most recent and up-to-date information and research findings.

Diversity of Perspectives: Efforts were made to incorporate studies from diverse perspectives, encompassing various aspects of the Azov coast's tourism and recreational potential. This approach facilitated a comprehensive understanding of the subject matter.

Following the data collection phase, the researchers undertook a comprehensive analysis and compilation of the gathered information. They carefully organized the data based on different natural recreational resources, such as

beaches, estuaries, and landscapes. Through this process, the authors identified the unique characteristics and potential of each resource for tourism and recreational activities. This analysis allowed them to provide a detailed description of the natural recreational resources available on the Azov coast.

4 RESULTS AND DISCUSSION

4.1 Data Presentation

The coast of the Azov Sea is a promising area of the Krasnodar region, which has unique recreational opportunities. There are sandy and shell beaches on the coast and its numerous spits, peninsulas; lakes and bays, large reserves of therapeutic silts and muds are concentrated in the adjacent estuaries, there are also sources of mineral waters (Karpova & Khodykina 2016, 206; Volkova & Minenkova 2017, 327).

The Azov Sea region is characterized by typical steppe landscapes, and the Taman steppes are similar to the dry Crimean one (Matishov et al., 2013). The seaside location makes a peculiar impact on the nature and especially on the economy of this territory of the region (Guastella et al., 2017).

The Azov coast within the Krasnodar region in the north is characterized by a hilly landscape cut by rivers and gullies, which gradually turns into a flat plain to the south. Such landscape can be used for recreational purposes. Sand spits, such as Yeiskaya, Dolgaya, Kamyshevatskaya protrude into the sea for several kilometers. The spits of the Azov Sea are not static objects as their length is subject to dynamics, which depends on both natural and anthropogenic factors (Yaitskaya, 2022).

Dolgaya Spit is a landscape natural monument of the Krasnodar region (Kosyan and Krylenko 2014; Pogorelov 2000). The shores of the Azov Sea, formed by the Kuban delta, are flat and more dissected to the north and here are the largest Beysugsky and Yeisk estuaries, separated by the Yeisk peninsula (Troitsky 1958).

Beaches play major role in the formation of the tourist and recreational complex of the Azov coast of the Krasnodar region (Gura et al., 2020; Kostianaia, Kostianoy, 2021). The beaches are the basic recreational resource of the territory. The beach area is a special natural formation that occupies a narrow strip of the seacoast, within which the sea and land constantly and actively interact with each other (Khokhlova et al. 2017, 284). The beaches of the Azov coast, in general, are powdery, gently sloping and partly shallow (Volkova et al. 2018, 646).

On the Azov coast, the steppes approach the sea. Areas of forb-cereal steppes are present on the Coast of Azov Sea within the Yeisk and Shcherbinovsky district. Areas of cereal steppes are present in the Temryuk district.

There are low but steep shores, and the coastline as a whole creates smooth curves. The Azov Sea itself is shallow and has a small depth, therefore warm, as it is well heated. The swimming season begins in late spring and ends at the end of September; the sea temperature is from +17 degrees to +26 degrees and more (Kruzhalin 1997, 14; Kudelya et al. 2014, 335; Tenyanskaya 2014, 46).

Climatic resources are the leading ones in the organization of recreational activities on the territory, since, influencing the human body; the climate is capable of exerting a therapeutic effect. The coast is located mainly in the gentle zone. There are no irritating zones at all. The average annual wind speed on the coast is 3–6 m / s, which increases on the spits and headlands in the sea. In addition, the Azov coast is characterized by a greater number of days with strong winds, which fall in February – March.

The climate of the Azov region is coastal-steppe, and the air is filled with such healing elements as bromine, calcium and iodine (Volkova et al. 2016b, 30). Sunny weather in general is 2320 hours a year, and the mode of solar activity is moderate, so here you can take any sunbathing course, unlike the Black Sea region.

In general, the summer is quite warm, the average July temperature is +24 degrees. Winters are mild, the average January temperature is –4 degrees, but it is characterized by variability of the weather, which is accompanied by a change of cold snaps and thaws (Litvinskaya 1984, 37; Mishchenko and Mishchenko 2004).

From an economic and geographical point of view, the coastal zone consists of numerous industries. Due to this, the coastal area is highly polarized that is why the Azov region is developed to a greater extent as an agricultural region, mainly for the production of grain, sunflower, sugar beet, and fodder.

However, in the Slavyansk district there are Anastasievsko-Troitskoe and Sladkovsko-Morozovskoe oil and gas fields, as well as shell rock, sand and clay (Volkova et al. 2016a, 672). Ferromanganese ores are widespread on the Taman Peninsula (Tamanskoe, Karabetovskoe, Vyshesteblievskoe, Zelenskoe, Iron Horn, Golubitskoe, Starotitarovskoe, Shukhinskoe).

The developed infrastructure of resort cities and beaches contributes to the active development of recreation and tourism in the region.

4.2 Discussion

Having characterized the main resort areas of the Azov coast, it is possible to highlight the priority areas of tourism that are characteristic of a particular resort area (Table 1).

Table 1. Types of tourism typical for the Azov-Black Sea coast

Resort and recreational area	Type of tourism
Yeisk district	bathing and beach, medical and recreational, children, active recreation on the coast, sports tourism (windsurfing, kitesurfing), cultural and educational
Temryuk district	bathing and beach, ethnographic, wine, sports, event, cultural and educational
Primorsko-Akhtarsky district	ecological, cultural and educational, sports (windsurfing), fishing and hunting, beach

Source: own elaboration.

In addition to the resource and socio-economic components, the recreational potential is also characterized by limiting factors that cut down tourist and recreational activities in the territory the recreational potential of which is measured.

Several limiting factors reduce the tourist and recreational development of the Azov coast:

1. *Seasonality* is a global phenomenon of tourism and hotel business in particular, caused by the temporary movement of people because of changes in tourism and hotel supply and demand. At the same time, seasonality is a multifaceted concept that includes not only the change in the number of people who visited a certain place, but also affects marketing policy, the labor market, financial flows, and so on.

The peculiarity of seasonality is that it is individual for each individual country, city, and resort. In general, the Azov coast belongs to the second group, for which only one peak season is characteristic throughout the year - summer. The only way to solve the problem of seasonality may be to reduce the intensity of its action, since it is not possible to overcome the seasonality factor completely.

2. *Underdevelopment of tourist and basic beach infrastructure* in the Azov region, which is currently developing through the construction of small private hotels, tourist centers, boarding houses. The reason for this situation is also the proximity of a direct competitor - the Black Sea region, which traditionally attracts more tourists and is the most developed resort region of the Russian Federation.

3. *The political factor*. After the annexation of Crimea and Sevastopol to the Russian Federation and the destabilization of the situation in eastern Ukraine, our country was subjected to sanctions by the EU and the United States. Consequently, the flow of tourists from these countries decreased significantly, which negatively affected the domestic tourism industry. At present, the situation has practically not changed, which is also confirmed by statistics - most of all in 2019 the Southern Federal District was visited by residents of Ukraine, Israel, Belarus, Kazakhstan, Armenia, China, Uzbekistan, Turkey, Azerbaijan and other countries.

4. *Epidemiological factor*. The unexpected spread of the COVID-19 virus around the world, including Russia, entailed catastrophic consequences for both the global economy and the economies of individual countries.

The pandemic hit tourism and travel especially hard. Quarantine, the closure of borders between countries, regions within the country have almost completely restricted the movement of people for many months. The 2020 summer season began much later than usual on the Azov coast and it was accompanied by heavy restrictions, which discouraged many tourists from making any trips for the recreational purposes.

Thus, the number of people who arrived in the Krasnodar region in January-September 2020 is 1.5 times lower than in the same period in 2019, and the number of foreign citizens is 2.5 times lower. As a result, many enterprises, especially seasonal operations, did not open at all, and the volume of services provided and the number of tourists served decreased compared to 2019.

5. *Insufficient attention to the development of the natural and cultural heritage of the region*, its individuality,

which makes it an unattractive tourist product on the market: poorly organized marketing.

The territorial and recreational complex of the Azov coast is a center of attraction for tourists (especially a narrow strip off the coast), but this attraction is mainly associated with beach areas. It is necessary to draw the attention of vacationers and potential tourists to other unique features of the Azov-Black Sea coast: favorable climate, rich mineral water and therapeutic mud deposits, unique landscapes, both coastal and mountainous, unique natural attractions and cultural and historical potential and heritage.

All this makes it possible to turn the Azov-Black Sea coast not only into the center of beach and bathing holidays, but also into a year-round resort with all kinds of tourism and recreation. This will increase the economic efficiency of both individual enterprises in the sanatorium and tourism sector and resorts, in general, budget revenues, recognition of the territory and reduce the load on beaches, which is important for the sustainable development of the Azov-Black Sea coast.

6. *High recreational load on the territory*. Recreational capacity refers to the ability of a territory or water area to provide a certain number of people with psychological comfort for recreation and health improvement without degradation of the natural environment or anthropogenic elements in the landscape.

Most of the tourists come to the Krasnodar region for the purpose of a beach holiday or its combination with other types of tourism: medical, wellness, etc. Due to this, the state of beach areas is of major importance for the sustainable development of tourism in the region the requirements for which as market trends confirm have increased among vacationers: sanitary and hygienic conditions, equipment with beach equipment, landscaping and its compliance with the rules for protecting the life of people on water bodies.

All these conditions are now essential elements of beach recreation. However, such demand for this type of recreation generates high recreational loads, as well as pollution of the coastal areas of the Azov-Black Sea coast, therefore, for the successful development of beach tourism, it is necessary to take measures to protect the shores from erosion, abrasion, as well as create new artificial beach areas.

5 CONCLUSION

In conclusion, the article provides an analysis of the tourist and recreational potential of the steppe zones along the Azov coast in the Krasnodar region of Russia. It highlights the unique natural resources and landscapes, such as sandy and shell beaches, spits, peninsulas, estuaries, and mineral waters, that contribute to the recreational opportunities in the area.

The article also discusses the importance of considering limiting factors that affect the development of tourism and recreation, including seasonality, underdeveloped infrastructure, political and epidemiological factors, insufficient attention to the region's natural and cultural heritage, and high recreational load on the territory.

The contributions of the article lie in providing a comprehensive description of the natural recreational

resources and identifying the key limiting factors that affect the tourist and recreational development of the Azov coast. It emphasizes the need for attention to the region's unique features beyond beach areas, such as the favorable climate, therapeutic resources, and cultural and historical potential, to promote year-round tourism.

The article also highlights the importance of protecting the shores from erosion, abrasion, and pollution, as well as creating new artificial beach areas to meet the increasing demand for beach tourism.

This paper has some limitations. One of them is laying on bibliographic search, using documents, either official or from ordinary press. Another factor is that the literature review and the area description is mainly focused on physical geographic factors and the built infrastructure, in short, in material aspects of the region. Finally, the analysis presented is mainly based on the factors emerged from the bibliography reviewed, in an inductive way, which doesn't cover systematically all the factors – economic, social, cultural, technological ones, among others.

Further studies on the topic should address, in a deeper way, each one of the factors above-mentioned – such as: seasonality, tourist infrastructure underdevelopment, political and epidemiological factor, insufficient attention to the development of the natural and cultural heritage, and the high recreational load demand – either in a qualitative or a quantitative study.

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Table 1. CRediT author statement

Term	Definition	Author 1	A.2	A.3	A.4
Conceptualization	Ideas; formulation or evolution of overarching research goals and aims	+	+	+	+
Methodology	Development or design of methodology; creation of models	+	+	+	+
Software	Programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components	+	+	+	+
Validation	Verification, whether as a part of the activity or separate, of the overall replication/ reproducibility of results/experiments and other research outputs	+	+	+	+
Formal analysis	Application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data	+	+	+	+
Investigation	Conducting a research and investigation process, specifically performing the experiments, or data/evidence collection	+	+	+	+
Resources	Provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools	+	+	+	+
Data Curation	Management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later reuse	+	+	+	+
Writing - Original Draft	Preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation)	+	+	+	+
Writing - Review & Editing	Preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision – including pre-or post-publication stages	+	+	+	+
Visualization	Preparation, creation and/or presentation of the published work, specifically visualization/ data presentation	+	+	+	+
Supervision	Oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team	+	+	+	+
Project administration	Management and coordination responsibility for the research activity planning and execution	+	+	+	+
Funding acquisition	Acquisition of the financial support for the project leading to this publication	+	+	+	+

Source: adapted from Elsevier (2022, s/p), based upon Brand et al. (2015).

Processo Editorial / Editorial Process / Proceso Editorial

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