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ELABORATION OF EFFECTIVE MECHANISMS FOR THE DEVELOPMENT OF RECREATIONAL TOURISM ON THE ALAKOL COAST

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Elaboration of effective mechanisms for the development of recreational tourism on the Alakol coast

Abstract. The article is devoted to the development of effective mechanisms for the development of recreational tourism on the Alakol coast, one of the most attractive tourist destinations in Kazakhstan. The article examines the current problems faced by local authorities and business representatives in the process of forming a sustainable tourism infrastructure, as well as opportunities to attract tourists and improve the quality of services. The paper analyzes current trends and problems faced by the region in the field of tourism, including infrastructural deficiencies, seasonality and environmental challenges. The authors offer specific recommendations on creating effective mechanisms for interaction between local authorities, business representatives and the community, as well as innovative approaches to marketing and promotion of the region. Based on the analysis of the proposed strategies, key areas for the sustainable development of recreational tourism in the region have been identified, which contributes to improving the quality of life of local residents and increasing the attractiveness of the region in the domestic and international tourism market. In conclusion, recommendations are proposed for government agencies, local communities and the private sector to create a comprehensive strategy that promotes the sustainable development of recreational tourism on the Alakol coast.

Key words: recreational tourism, tourism infrastructure, sustainable development, natural healing resources, ecotourism, tourism zoning, socio-economic impact.

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Алакөл жағалауында рекреациялық туризмді дамытудың тиімді тетіктерін өзірлеу

Аңдатпа. Мақала Қазақстанның ең тартымды туристік бағыттарының бірі – Алакөл жағалауында рекреациялық туризмді дамытудың тиімді тетіктерін өзірлеуге арналған. Жергілікті билік пен бизнес өкілдері тұрақты туристік инфрақұрылымды қалыптастыру процесінде кездесетін өзекті мәселелер, сондай-ақ туристерді тарту және қызмет көрсету сапасын жақсарту мүмкіндіктері қарастырылады. Жұмыста аймақтың туризм саласындағы қазіргі тенденциялары мен проблемалары, соның ішінде инфрақұрылымдық кемшіліктер, маусымдық және экологиялық қиындықтар талданады. Авторлар жергілікті өзін-өзі басқару органдарының, бизнес пен қоғамдастық өкілдерінің өзара әрекеттесуінің тиімді тетіктерін құру бойынша нақты ұсыныстарды, сонымен қатар аймақты маркетинг пен жылжытудың инновациялық тәсілдерін ұсынады. Ұсынылған стратегияларды талдау негізінде өңірдегі рекреациялық туризмді тұрақты дамыту үшін негізгі бағыттар айқындалды, бұл жергілікті тұрғындардың өмір сүру сапасын жақсартуға және өңірдің ішкі және халықаралық туристік нарықтағы тартымдылығын арттыруға ықпал етеді. Қорытындылай келе, мақалада мемлекеттік органдарға, жергілікті қоғамдастықтарға және жеке секторға Алакөл жағалауында рекреациялық туризмнің тұрақты дамуына ықпал ететін кешенді стратегияны құру бойынша ұсыныстар жасалады.

Түйін сөздер: рекреациялық туризм, туристік инфрақұрылым, тұрақты даму, табиғи-емдік ресурстар, экотуризм, туристік аудандастыру, әлеуметтік-экономикалық әсер.

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Разработка эффективных механизмов развития рекреационного туризма на Алакольском побережье

Аннотация. Статья посвящена разработке эффективных механизмов развития рекреационного туризма на Алакольском побережье, одном из наиболее привлекательных туристских направлений Казахстана. Рассматриваются актуальные проблемы, с которыми сталкиваются местные власти и представители бизнеса в процессе формирования устойчивой туристской инфраструктуры, а также возможности для привлечения туристов и улучшения качества услуг. В работе анализируются текущие тенденции и проблемы, с которыми сталкивается регион в сфере туризма, включая инфраструктурные недостатки, сезонность и экологические вызовы. Авторы предлагают конкретные рекомендации по созданию эффективных механизмов взаимодействия местных органов власти, представителей бизнеса и сообщества, а также предлагает инновационные подходы к маркетингу и продвижению региона. На основе анализа предлагаемых стратегий выделены ключевые направления для устойчивого развития рекреационного туризма в регионе, что способствует улучшению качества жизни местных жителей и повышению привлекательности региона на внутреннем и международном туристическом рынке. В заключение, в статье предлагаются рекомендации для государственных органов, местных сообществ и частного сектора по созданию комплексной стратегии, способствующей устойчивому развитию рекреационного туризма на Алакольском побережье.

Ключевые слова: рекреационный туризм, туристская инфраструктура, устойчивое развитие, природно-лечебные ресурсы, экотуризм, туристское районирование, социо-экономическое воздействие.

Introduction. Lake Alakol, located in the south-east of Kazakhstan, is a unique natural object that attracts the attention of both locals and tourists from all over the world. With its natural beauty, ecological purity and rich biodiversity, it is an attractive area for the development of recreational tourism. However, despite its significant recreational potential, tourism development in the region faces a number of challenges related to both infrastructural and environmental constraints.

Definitions of sustainable recreation and tourism are becoming more multi-faceted, nuanced, and layered – moving away from a vantage point that privileges environmental objectives to a socio-ecological systems framework that recognizes the interconnected web of socio-cultural, local-global, institutional, and relational, processes [1].

In this regard, the development of effective mechanisms and strategies aimed at sustainable tourism development in this region is an urgent task. It is important to create a comprehensive approach that will not only increase the flow of tourists, but also ensure the protection of natural resources, maintain ecological balance and improve the quality of life of local residents.

Sustainable outdoor recreation and nature tourism contributes to human health and economic benefits, bolsters rural communities, and supports local livelihoods and enduring cultures, heritage and identities. Sustainable management provides desirable outdoor opportunities for all people, in a way that supports ecosystems, contributes to healthy communities, promotes equitable econo-

mies, respects culture and traditions, and develops stewardship values now and for future generations [2].

The object of the study is recreational tourism on the Alakol coast, including its infrastructure, environmental component, cultural and natural resources, as well as socio-economic aspects related to tourism in the region.

The study focuses on mechanisms and strategies for the development of recreational tourism, aimed at increasing its efficiency, ensuring sustainability and minimizing negative impact on nature.

The purpose of this study is to develop recommendations and proposals for establishing effective mechanisms for the development of recreational tourism on the Alakol coast. To achieve this goal, the current state of tourism infrastructure will be analyzed, the potential of the region's natural and cultural resources will be assessed, and a strategy will be developed that includes environmentally sustainable approaches, infrastructure improvements, and attracting investment in the tourism sector.

Objectives of the study include:

Analysis of the state of recreational tourism on the Alakol coast, identification of problems and limitations faced by tourists and local authorities.

Assessment of the region's natural and cultural resources that can be used for tourism development.

Development of proposals for improving infrastructure and tourism services.

Development of sustainable tourism models that will ensure the long-term preservation of the Lake Alakol ecosystem.

Assessment of international experience in the field of recreational tourism development and application of successful models for the Alakol region.

The study aims to promote efficient and environmentally balanced development of tourism on the Alakol coast, which will contribute not only to the economic growth of the region but also to the conservation of its natural resources for future generations.

Tourism aims to enhance community quality of life, but its impacts can be positive and/or negative by community. Under increasing uncertainty from multiple crises, this study links tourism sectors with the concepts of community resilience and quality of life to support sustainable development [3].

Results can be used to create strategic plans and recommendations for local and national authorities, business structures and environmental organizations interested in the region's sustainable development. The practical importance of the work is to create a basis for forming effective tourism management mechanisms that will ensure long-term and environmentally sound development of recreational tourism on the Alakol coast.

Materials and methods. The development of recreational tourism in natural areas such as the Alakol coast is an important topic in both scientific and practical terms. In recent decades, the problem of sustainable tourism and its interaction with ecosystems has attracted the attention of many researchers and practitioners. The main focus of these studies is on natural resource management, creating environmentally sustainable infrastructure and minimizing the negative impacts of tourism on the environment.

A large component of the commercial tourism industry relies on biodiversity as a primary attraction, either through scenery, national parks and reserves, or individual icon plant and animal species. Tourism and recreation produce a wide range of negative environmental impacts on biodiversity. A small number of commercial tourism operations, however, do make successful net positive contributions to conserving biodiversity [4].

Studies on tourism flow management and infrastructural aspects play an important role in the formation of effective mechanisms for tourism development in natural areas. The idea of creating a multifunctional infrastructure that would not only support the comfort of tourists, but also ensure a minimum impact on nature has great importance. Key elements of such infrastructure include water supply, energy supply, waste treatment systems, as well as transportation and communication networks.

Strong growth in Tourism and recreation has been accompanied by changes in its form and distribu-

tion, and its relationships to other land uses. These relationships are shaped by demographic and social changes, trends in consumer behaviour, technology and transport shifts along with governance and policy evolution [5].

Another group of studies concerns the development of environmentally friendly tourist routes. The introduction of such routes on the Alakol coast can contribute not only to increase the flow of tourists, but also to preserve unique natural sites such as reserves and protected nature areas.

Recreation and tourism are a widespread phenomenon in today's nature areas. Visitors come to these areas for a number of activities, but also to have a nice picnic while enjoying the view. Outdoor recreation is increasingly becoming an expression of lifestyle and identity [6].

Studies on the Alakol region show its huge recreational potential, but there are a number of obstacles to its development due to insufficient infrastructure and environmental risks. The Alakol coast is characterized by high levels of biodiversity and is an important site for protection. However, increasing the flow of tourists without proper control can lead to deterioration of water quality, destruction of ecosystems and disruption of natural balance.

Important aspects of sustainable tourism development on the Alakol coast are:

Environmental sustainability. Due to the vulnerability of the lake ecosystem, environmental standards such as certification of green hotels, use of renewable energy sources and efficient waste management system should be applied.

Tourism, Recreation, and Sustainability succeeds in its aim to discuss the wide ranging issues in sustainable tourism and in addressing the critical role of sustaining cultures and environments for future generations [7].

Development of local infrastructure and services. Existing tourist facilities on the coast need modernization, improvement of service quality and expansion of tourist services. It is important to ensure the accessibility of transportation networks, improve tourist accommodation facilities, and develop cultural and educational programs for visitors.

Socio-economic impact of tourism. Tourism development can lead to improvement of economic situation in the region, creation of new jobs and improvement of living standards of local residents. Importantly, however, tourism revenues should be redistributed so that they benefit not only entrepreneurs but also local communities.

Interest in the issues of sustainable tourism development is not limited to Kazakhstan, and the world

experience in this area can be useful for the development of effective mechanisms for the Alakol region. Successful application of sustainable practices is the experience of Turkey in developing ecotourism routes in coastal areas, which has allowed to combine tourist growth with conservation. In Europe, successful projects on the creation of ecological parks and green resorts that serve as an example for implementation in Kazakhstan.

Over the last decades, the popularity of outdoor recreation and nature-based tourism has increased dramatically, and the associated activities have become a hallmark of modern and healthy lifestyles in developed countries [8].

Despite the existence of a number of studies, there is a clear gap in the work on the integral approach to the development of recreational tourism on the Alakol coast. Much of the existing research focuses on individual aspects such as ecology or infrastructure, but does not integrate these elements into a single sustainable development model. Also, insufficient attention is given to social aspects such as the involvement of local people in decision-making and their role in tourism development. These issues require further study and the development of specific recommendations for the Alakol region.

Various methods and data sources, including theoretical and empirical analysis, were used to develop effective mechanisms for the development of recreational tourism on the Alakol coast. The study was conducted in several stages: data collection and analysis, identification of main problems, as well as modelling possible scenarios for tourism development. Topographic maps, satellite images and geographic information systems, allowing for precise identification of landscape features, natural areas and high recreational potential zones, were used to analyse the region's natural resources potential. The main source of statistical data are official reports and publications of government agencies, such as the Committee of Statistics of the Ministry of National Economy of the Republic of Kazakhstan, as well as regional statistical services. In particular, data on tourist arrivals, employment, infrastructure investment and the evolution of the tourism economy. Recreational and natural resources data were also used, including attendance statistics of natural and cultural sites. In order to better understand the needs and preferences of tourists, as well as to analyze the level of satisfaction with the existing infrastructure and services, sociological surveys were conducted. Surveys among tourists, locals and tourism industry workers identified key issues and areas for improvement. Interviews with experts in tourism and ecology, as well as representatives of

local authorities helped to gather information on existing initiatives and programs for the development of tourism on the Alakol coast. It is important to take into account the environmental constraints of the region, so data on the state of the Alakol Lake ecosystems obtained from studies of environmental organizations and conservation projects were used. This included information on water quality, plant and animal life, and the current status of nature preserves and parks.

The initial stage of the research included analyzing existing data on tourism development in Kazakhstan, as well as on the state of tourism infrastructure on the Alakol Coast. The proposed article is based on statistical data, materials collected within the framework of the program "Comprehensive analysis of the natural, historical and cultural landscape potential of Alakol and the development of effective mechanisms for the development of recreational tourism". For this purpose, official statistics, tour operators' reports, as well as studies and reviews published in academic journals and specialized platforms were used. All collected data were subjected to quantitative and qualitative analysis using statistical and analytical methods.

Results. The Alakol Basin extends southeast in a northwest direction for 130 km with a width of 80 km. To the north, it is bordered by the Saur-Tarbagatai ridges. To the south, the basin is limited by the leading ridges of the Dzhungarian Alatau. In the northwest, it connects with the Balkhash Depression and gently transitions into the Kazakhstan low mountains. In the southeast, there is a significant decrease in the relief between the spurs of Saur and Alatau – the Dzhungarian Pass. In the lowest (347-350 m) central part of the depression, there is a system of lakes known as the Alakol group: these are Alakol, Koshkarkol, Zalanzhkol, Uyalykol, Sasykkol. At the foot of the ridges, the absolute height of the surface of the depression increases to 700-800 m. The largest lake in this group, Lake Alakol, has an irregular pear shape and is pressed against the Dzhungarian shore. Currently, the lake's surface is at an absolute elevation of 387 m. All the lakes are endorheic and do not communicate with each other, therefore the water salinity ranges from 3 to 9 grams per liter. More than 15 tributaries flow into the lake, of which the main ones are six: the Urjar River (providing 50% of the surface inflow to the lake), Khatynsu (8.8%), and Emel (27.4%) in the north and northeast, and Zhamanutkol (5%), Yrgayty, and Zhamanty (8.8%) in the south and southeast. Rivers originating from the spurs of the Dzhungarian Alatau (Tentek, Yrgayty, Jamanty), from the Saur-Tarbagay (Urdzhar, Emel, Tasty). The length of Lake Alakol is 104 km, its width is 52 km, the length of the coastline is 384 km, the maximum depth is 22.1

m, and the drainage area is 68.7 thousand km². Currently, the lake and its surroundings are used for balneological purposes. Recreation areas, campgrounds, and sanatoria have been built there [9].

It is observed that domestic tourism is rapidly developing in the resort areas along the shores of Lake Alakol. In turn, this contributes to the rapid economic development of the lakeside regions, necessitates the improvement of the tourism industry's material and technical infrastructure, and stimulates industries that provide services to vacationers and produce essential products. Analysis of statistical data shows that due to Alakol's proximity to the Chinese border, the number of tourists going on short-term shopping tours to border areas is increasing. The beach tourism sector in the region's domestic tourism market has begun to gain momentum. Ecological and scientific-exploratory tourism routes are being developed to serve regular vacationers. Tourism services in the resort areas along the shores of Lake Alakol play a significant role in providing seasonal employment for local rural residents and improving their socio-economic conditions.

Currently, the market supplying tourists to the seasonal beach resorts along the shores of Lake Alakol consists of the cities of Almaty, Taldykorgan, Semey, and Oskemen. The promising foreign market for attracting international tourists to the region includes Tyumen, Tomsk, Novosibirsk, Kemerovo, and Omsk regions of Russia, as well as the Altai Territory, which currently provide the main flow of tourists. This is closely linked to the region's historical, cultural, geographical, economic, and socio-cultural ties with neighboring countries, as well as the rapid development of international tourism in China.

The quantitative indicators of recreational use of tourist sites in the region are characterized by variability. Areas attracting a significant number of vacationers and tourists include the mouths of the Tentek and Zhamanty rivers flowing into Lake Alakol, the southern coast of Alakol and the Barlyk-Arasan health resort zone. The areas where short-term recreational activities of local importance are developed are located mainly in the middle reaches of large river valleys on frequently populated foothill plains. In the vast desert valleys tourism is poorly developed due to the characteristics of natural conditions. Amateur hunting and tourism of a risky nature are more developed in these territories.

Good development of transport and communication networks in the densely populated Alakol depression, availability of sufficient amount of necessary recreational resources in the valleys of the Tentek, Zhamanty, Kensu rivers and on the banks of lakes of the Alakol system and socio-economic potential of the region will allow in the future to develop recreation and tourism on a large scale [10].

Based on the analysis of data collected during the expeditionary research conducted in the period from 2023 to 2025, a map of Alakol tourist and recreational area at a scale of 1:2,000,000 was developed. The thematic content includes deposits of mineral waters and therapeutic muds, objects of historical and cultural heritage and tourist infrastructure, as well as nature reserves, sanatoriums and national parks, allowing the development of medical and health-improving and sanatorium-resort recreation, cognitive tourism, and is displayed using the spatial and qualitative coloristic method (Figure 1).

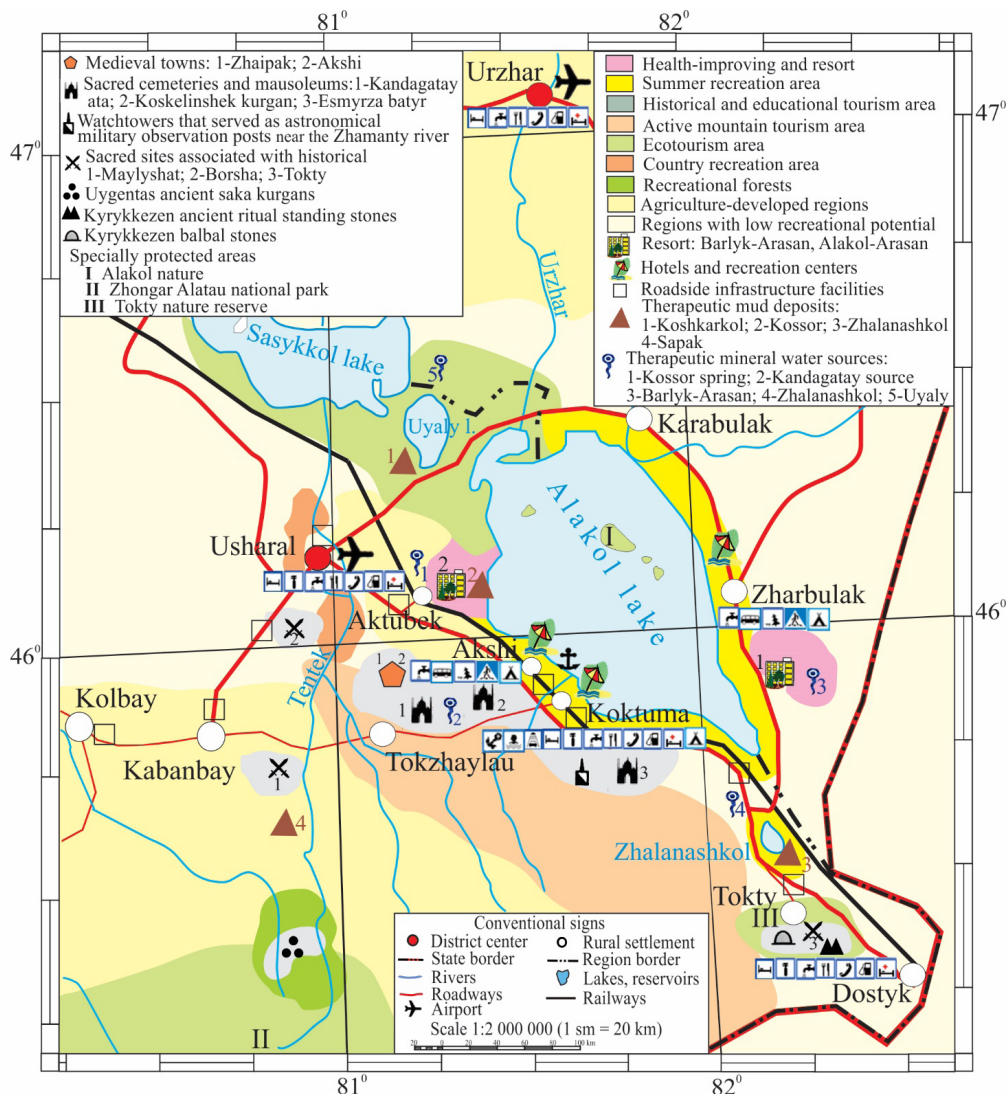


Figure 1 – Map of tourism and recreational potential of the Alakol recreation area
Note: compiled by the author

The strengths of developing tourism and recreation along the Alakol shoreline include natural resources, ancient historical architectural monuments, entertainment facilities, as well as public catering and hotel services. The prerequisites for tourism development, in turn, require an assessment of the natural, socio-cultural and economic opportunities of the territory, allowing the formation of tourism and recreation industry. In recent years

on the beaches of Alakol there has been intensive construction of rest houses and resorts that meet the tastes of domestic and foreign vacationers. Most of them are being built on the southern and northern coasts of Alakol, on the beaches near the villages of Akshi, Koktuma, Uzunbulak, Karabulak, and Kabanbai.

The number of accommodations in the Alakol resort area for 2020-2023 is shown in Figure 2.

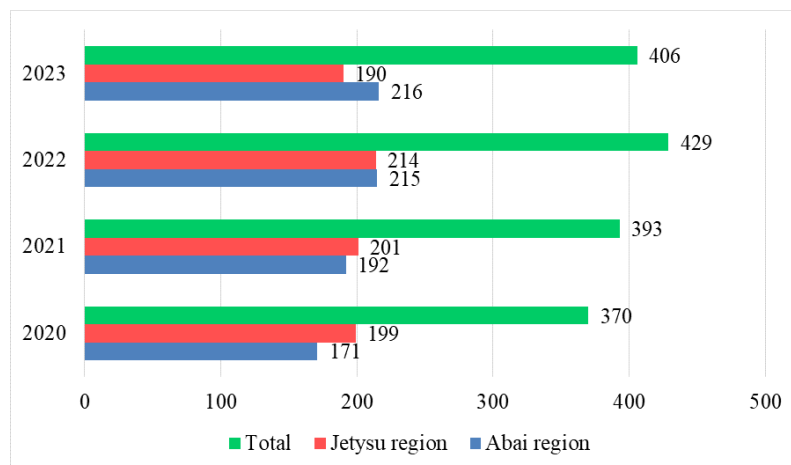


Figure 2 – The number of accommodation facilities in the Alakol resort area, unit [11]
Note: 2020-2021 years, East Kazakhstan region, Almaty region. Compiled by the author

The total number of accommodation facilities on the eastern and southern shores of the Alakol resort area has been increasing annually. In 2022, it amounted to 429 units, while in 2023, it decreased to 406 units.

According to monitoring data for the summer season of 2024, there are 223 tourist facilities located on the shore of Lake Alakol in the Jetysu region, with a total capacity of 15,700 beds. This is a significantly higher figure compared to previous years. Between 2005 and 2024, the number of hotels on the shores of Alakol increased by 5.5 times, the number of guest houses and boarding houses grew by 9.7 times, the number of tourist bases doubled, and the number of single-story bungalows, rural houses (chalets), cottages, small houses, and apartments increased by 5.3 times [12; 13].

In 2021-2022, Alakol received a large influx of tourists. This was due to the closure of foreign tourist destinations as a result of the pandemic. The pandemic had a positive impact on the growth of domestic tourism demand.

However, in 2023, the reopening of destinations such as Turkey, Egypt, and the UAE significantly affected domestic tourism. The pent-up demand for vacations played a key role — the two years under pandemic restrictions gave a boost to the sector.

According to official statistics, in 2023, accommodation facilities on the resort coastline served over 290.7 thousand tourists (205.8 thousand tourists on the eastern shore and 84.8 thousand tourists on the southern shore), excluding those who vacationed independently (see Figure 3). In comparison, according to the 2013 data from the Almaty Regional Statistics Department, 80.7 thousand people visited the Alakol shoreline for recreation and health improvement purposes. Therefore, the number of tourists on the southern shore in 2023 has decreased to the level of the 2013 figures.

Since the beginning of the 2024 tourist season, more than 600,000 people have improved their health in Alakol [12].

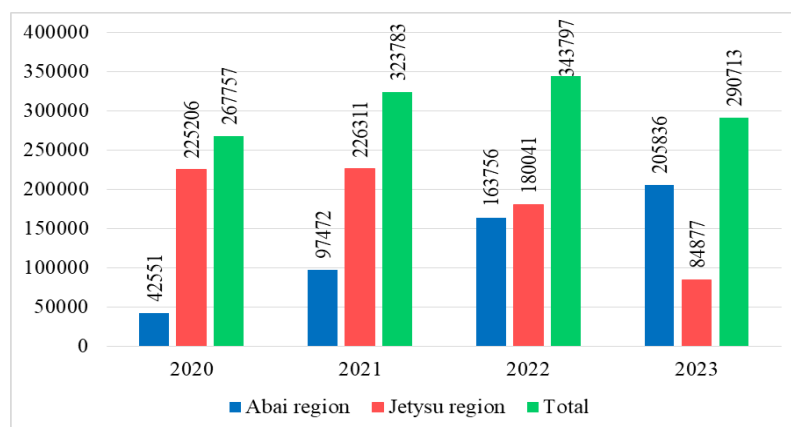


Figure 3 – The number of visitors to the Alakol resort and recreational area, people [11]
Note: 2020-2021 years, East Kazakhstan region, Almaty region. Compiled by the author

The Alakol resort has the potential to accommodate up to 2.5 million people and increase tourist flow by up to seven times, but currently, only 14% of its capacity is being utilized. As seen in Figure 3, the number of visitors to the shoreline under the Jetysu region sharply decreased in 2023. This is primarily due to issues with transport infrastructure and logis-

tics. In that year, air travel on the Alakol route was not available, the construction of roads was not completed, and there was a shortage of train tickets. Despite the significant number of people wanting to visit Alakol, the available tickets could not meet the full demand. Figure 4 provides an overview of the services offered in the Alakol resort area during these years.

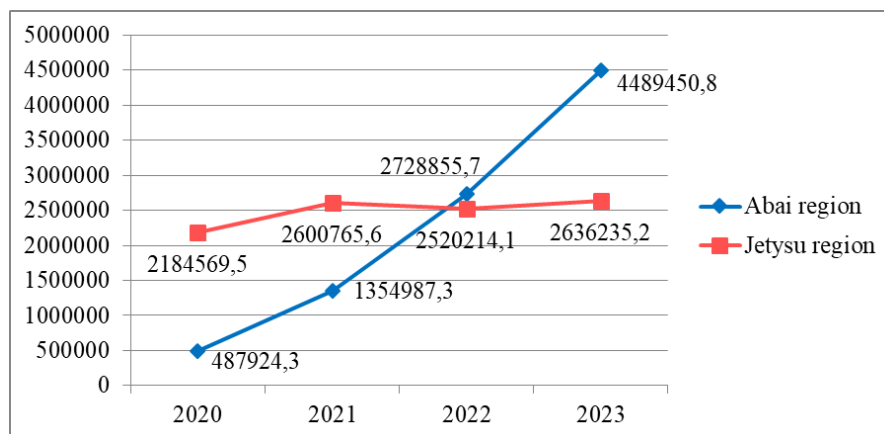


Figure 4 – The volume of services provided in the Alakol resort area, in thousand tenge [11]

Note: 2020-2021 years, East Kazakhstan region, Almaty region. Compiled by the author

Unfortunately, entrepreneurs operating in Alakol face infrastructure issues every year. These challenges relate to underdeveloped infrastructure, the lack of centralized and stable electricity supply, internet and communication issues, as well as the need for internal roads, sidewalks, and adequate lighting for the area. These are projects that have been announced and even funded, but have not been implemented, including central communications, water supply, and sewage systems. Communication infrastructure has not been fully established at the recreation bases. Due to the poor development of the material and technical base, infrastructure, and the lack of qualified specialists, the growth rate of domestic tourism in the region remains low. Although new recreation facilities have been built and service quality has improved over the past three to four years for tourists visiting the Alakol coastline, there have still been no fundamental changes.

As seen in Figure 4, the dynamics of the volume of services provided in the Jetysu region is steady, with no significant growth. This is due to the reasons mentioned above, as well as the issue of insufficient accommodation facilities.

Currently, due to the significant increase in recreational needs, it is an urgent issue to improve tourism services for local residents by building affordable campsites, small hotels, and guest houses for short-term stays along the middle and lower reaches of large rivers in the Alakol basin.

Discussion. To encourage domestic investors to build accommodation facilities and create favorable conditions, it is necessary to introduce special proposals for investors. Such measures could include increasing the reimbursement of a portion of business expenses up to 25% when constructing new tourism facilities and extending the loan and subsidy period for investments in tourism to 10 years. Entrepreneurs are ready to increase the number of beds and improve services, but there are issues that require state assistance.

Issues that require government support:

The coastal reinforcement project needs to be completed. This issue has been relevant for over 15 years.

The issue of electricity supply remains highly relevant. Over 200 tourist bases operate under minimal technical conditions. The lack of electricity on both shores of Alakol resort area leads to frequent breakdowns of household appliances and industrial equipment at the recreation centers, affecting the quality of services, causing significant losses to entrepreneurs, and resulting in negative feedback from tourists.

Additionally, the central water supply, sewage system, internet along the coastline, and mobile connectivity is very poor.

The issue of tourist safety remains unresolved. Unfortunately, the issue of tourist safety is raised every year, particularly concerning fire safety and

water safety. The number of unmonitored watercraft is increasing annually. There are not enough safe areas surrounded by barriers, and often, the drivers of such vehicles ignore the installed buoys and even approach areas where people are swimming, violating basic safety measures and driving at high speeds around groups of people.

The lifeguards of Ministry of Emergency Situations are unable to fully monitor the safety of beach vacations. For example, on the Abai region's coast, the beach stretches over 4 kilometers. Although the number of rescuers has increased this year, they are still unable to constantly monitor this area. During the summer season, it is necessary to significantly increase the number of lifeguards and water police. The state should regulate water transport and take control of ensuring tourists' safety while relaxing in the water. It is impossible to develop tourist resort areas without basic infrastructure [14].

The resource base necessary for the development of therapeutic and recreational tourism, as well as various types of recreation on the Alakol coastline, is not fully outlined in various programmatic documents. Firstly, the quantitative and qualitative indicators of the region's vast recreational resources have not been determined, and a platform for registering, documenting, preserving, and restoring them has not been created. Secondly, the quantitative and qualitative indicators of recreational resources have not been standardized. Thirdly, due to the ecological situation, some of the region's recreational resources, which distinguish it by its attractiveness, might be excluded from the country's unified tourist space. If we realistically assess the region's tourist and recreational resources, we can see that although many of them lag behind in terms of service quality, their efficiency, uniqueness, accessibility, and safety are on par with those abroad.

The underdevelopment of therapeutic and recreational tourism infrastructure, as well as the lack of proper organization of opportunities for cognitive and ecological tourism, aside from beach recreation and swimming, is hindering the establishment of a specialized national and international tourist-recreational system in the Alakol resort area. Specifically, the limited number of licensed guest houses and tourist bases in villages such as Akshi, Koktuma, Aktubek, Karabulak, and near the Zhalangashkol beach, which do not fully meet the needs of vacationers during the swimming season, significantly slows down the development of tourism and recreation in the region.

The solutions to all the issues mentioned above are being considered by the government. Special attention is being given to the development of roads

and engineering infrastructure for tourist facilities along the Alakol coastline.

The transportation factors in the development of tourism and recreation along the Alakol coastline. The transport and communication network connects the densely populated foothill areas of the Alakol depression with the industrially developed regions of Karaganda, East Kazakhstan, and China. The transportation factors in the development of tourism and recreation along the Alakol coastline are crucial. The transport and communication network connects the densely populated foothill areas of the Alakol depression with the industrially developed regions of Karaganda, East Kazakhstan, and China. It provides a convenient transit route for tourists arriving from Western Europe, Russia, East, and Southeast Asia via the Dostyk checkpoint. If the necessary infrastructure is established, this will allow the Alakol and Balkhash coastlines to transform into an internationally recognized recreational area. The relatively flat terrain of the regions, which house numerous historical, cultural, and natural monuments, is also favorable for transportation connections.

According to the regional Department of Entrepreneurship and Industrial-Innovative Development, during the summer season (from June to August), there are 28 weekly flights to Lake Alakol from the cities of Astana, Almaty, and Taldykorgan. Additionally, there are 12 railway routes from Almaty, Astana, East Kazakhstan, and Abai regions (with a frequency of 23 trains per week, 157 carriages, and 4473 passenger seats), including the Talgo train on the Astana-Dostyk route. Additionally, during the summer season, there are 15 daily trips of 50-seat tourist buses along the regular routes "Almaty - Akshi village - Koktuma village" and "Taldykorgan - Akshi village - Koktuma village." Transportation along these routes is carried out daily. The project for the reconstruction of the "Taldykorgan-Oskemen" (287-615 km) highway leading to the Alakol shoreline has been implemented. After the completion of major repairs on the national roads, travel by private car has become much more convenient and, most importantly, safer [12].

Demographic factors that provide opportunities for tourism development. The workers engaged in intellectual labor prefer to restore their spiritual and physical strength in resorts and recreational centers. On the other hand, the level of recreational service usage is low among rural residents and retirees. Large industrial enterprises and universities have built their own wellness facilities and recreational centers for school-age children in the valleys of the Karatal, Koksus, and Aksu rivers. Analysis of the demographic situation in the Taldykorgan region shows

that areas along the middle and lower reaches of the Tentek, Lepsy, and Karatal rivers are suitable for the development of recreational facilities due to their high population density.

Historical and cultural factors that provide opportunities for tourism development. Along with beach and swimming holidays on the shores of Lake Alakol, historical and cultural recreational resources play a special role in the development of cognitive, ecological, and pilgrimage tourism. These include settlements and burial mounds from the Bronze, Iron, and Saka-Hun periods, cities from the early Middle Ages, mausoleums and tombs dating back to the 15th-17th centuries, and places where the Kazakh-Jungar wars and Civil Wars took place. The majority of the infrastructure that allows for the development of tourism, recreation, and beach recreation in line with the region's natural conditions is concentrated on the southern and northern shores of Lake Alakol, near the Barlyk-Arasan resort area. Alakol is considered a highly suitable region for the development of medical and wellness tourism. The Alakol-Arasan therapeutic resort and the Barlyk-Arasan resort are located here, they known for their healing properties for vacationers and patients. The Balik-Arasan resort is primarily focused on treating nervous system, gynecological, gastrointestinal, and other health issues. It has the capacity to accommodate up to 400 guests per day. However, due to a low number of visitors, the resort only operates during the summer months. In order to revitalize the resort's operation, plans are in place to attract tourists from neighboring China. If the resort operates year-round, it will contribute to the creation of new jobs and attract additional investments [15].

There are full opportunities to develop health and wellness tourism, ecological tourism, and beach tourism along the Alakol coast. The following actions should be taken to develop health and wellness tourism and recreation in the region:

- To support tourism projects by the government, financial loans should be allocated and investments attracted;
- Solve the issue of providing concessional loans for the construction of tourism facilities;
- Address the issue of allowing foreign tourist groups to enter without barriers through special permits;
- Monitor and ensure high quality of tourism services;
- Strengthen the material base of the "Barlyk-Arasan" health and wellness center;
- Build new wellness facilities on the shore of Lake Alakol that meet international standards.

In addition, water supply and sewage systems have been built on the shore of Lake Alakol. Large-scale projects are ongoing, such as the construction of a 52-kilometer central water pipeline network in Akshi village, the establishment of sewage and treatment facilities, and the coastal protection works (13.5 km).

The project design and cost estimate for the construction of the "Akshi" new substation with a 56.7 km 110 kV power transmission line have been developed. To ensure a stable power supply for the Alakol resort area, high-voltage power lines are being installed, and new, more powerful power stations are being set up.

In addition, the project design and cost estimate for the expansion of the "Aktogay" substation, which is equipped with a 220 kV overhead distribution system and will be expanded to 2 cells, as well as for the construction of the new "Koktuma" 220/110/35/10 kV substation and the "Koktuma-Aktogay" 220 kV line (204.3 km), have been developed.

The regional administration has made adjustments to the first phase of the project "Alakol Lake Dam Construction in Alakol District of the Jetysay Region". Additionally, adjustments are being made to the design of the second phase [12].

To respond quickly to incidents at Lake Alakol, the Emergency Situations Department's rapid response and rescue team has prepared 7 motorboats, 2 inflatable boats, 21 diving equipment, as well as other necessary equipment. In order to ensure fire safety, temporary fire stations have been set up in the villages of Akshi and Koktuma. Additionally, two ambulance crews have been deployed to these settlements for round-the-clock duty during the summer season. The Transport Control Inspectorate has been provided with a boat to monitor water transport. This year, two inspectors will be working to ensure safe movement on the water. To ensure the cleanliness of the coastline, the Alakol district administration conducts daily removal of solid waste and sanitation works during the summer season. A total of 120 garbage containers and bins, 24 sanitary-hygienic installations, and 10 bio-toilets have been installed.

In the recreational area along the Alakol shoreline, the safety and reliable medical assistance for vacationers, as well as the stable operation of mobile communication and the 3G/4G internet, have been improved. All mobile network operators of the country are operating here, and during the peak season, for example, "Kcell" sends a mobile station to ensure connectivity [16].

In addition, there are 6 tourist routes, including horseback riding, ecological tourism, and an ethnovillage in the Lepsi village.

As a result of the large-scale measures implemented to develop tourism on the shores of Lake Alakol, the indicators for 2024 have increased several times compared to previous years. This year, an additional 8 facilities, with a total value of 1.4 billion tenge, are planned to be put into operation with private investments. The construction of the largest Phoenix recreation area in the region and a four-star hotel under the Hilton international hotels and resorts brand will begin soon. This indicates an improvement and diversification of services, as the flow of vacationers from all regions of Kazakhstan and both nearby and distant foreign countries is increasing every year. In other words, domestic entrepreneurs consider it worthwhile to invest significant funds in the tourism sector of Lake Alakol. Interest from investors in neighboring China is also increasing [12]. This sector of the economy is indeed growing successfully and dynamically, attracting the attention of not only domestic but also foreign investors. This suggests that in the coming years, the flow of tourists to the jewel of Zhetysay will multiply.

The following strategic guidelines for developing tourism and recreation in the Alakol region are proposed:

To form a tourism cluster that meets current standards and improve its material and technical base, it is necessary to create a legal, organizational, and economic framework for the sustainable development of tourism in the Alakol region.

To develop regional tourism through accessible private areas and regions, it is necessary to create an effective program that allows for the efficient use of nature and the preservation and restoration of tourist and recreational resources. This is because, without using specific monitoring indicators, it will be impossible to create investment projects and programs for the investment attractiveness of tourist areas. Therefore, the unified cadastre of the region's tourist-recreational resources should serve as the basis for creating a regional tourism development program.

Tourist-recreational potential should be realized through the development of tourist-recreational resources, taking into account the area's internal economic capabilities and the external environmental conditions, which define the strategy for striving towards the international tourism service market.

Developing regional tourism through accessible private tourist areas and regions requires creating an effective program for the sustainable use of nature for tourism purposes, as well as the preservation and restoration of tourist resources.

To export tourist services, it is necessary to take a pivotal step towards forming the region's image,

conducting tourism statistics in line with current standards, implementing an international insurance system, and improving tourism infrastructure.

The general framework for developing health and wellness tourism and recreation in the Alakol region should be based on the stability of the natural environment, taking into account environmental protection and ecological factors.

The weaknesses in developing health and wellness tourism and recreation along the Alakol shoreline include the underdevelopment of the tourist cluster and the low level of support for tourism companies from the government. Additionally, among the threats to the development of health and wellness tourism and recreation, the instability of service quality and the increasing pressure on recreational facilities can be highlighted.

The opportunities for developing health and wellness tourism and recreation along the Alakol shoreline include efforts to turn the area into a center for business trips and leisure, constructing resorts and vacation homes that meet international standards, developing domestic historical tourism, improving household and technical services for the population, and carrying out major repairs on road infrastructure.

Conclusion. This study has identified several key directions for the sustainable development of recreational tourism on the Alakol shoreline. First, it is necessary to develop an environmental monitoring system and implement environmental certification standards for tourist facilities, which will ensure the minimization of negative impacts on the region's ecosystem. Secondly, it is important to actively develop tourist infrastructure, including transport networks, the hotel sector, and service industry, with an emphasis on improving service quality and increasing the region's accessibility for different categories of tourists. Thirdly, an important element of the strategy should be the involvement of local residents in the planning and implementation of tourism projects, which will enhance social responsibility and contribute to the region's economic growth.

Moreover, a key aspect of successful tourism development is the harmonious combination of recreational interests with the protection of natural resources. To achieve this, it is necessary to implement innovative eco-friendly technologies, such as the use of renewable energy sources, effective management of water and energy resources, as well as minimizing waste and emissions into the atmosphere.

Special attention should be given to education and awareness for both tourists and the local population, which will help raise the level of environmental culture and encourage a respectful attitude toward natural resources. It is also essential to develop sus-

tainable ecotourism routes and programs that will not only attract tourists but also foster a deep connection with nature, local traditions, and culture.

The potential of the Alakol shoreline for the development of recreational tourism is significant, but its realization requires coordinated actions from various stakeholders: government authorities, local communities, private businesses, and environmental organizations. The implementation of the proposed mechanisms and strategies will not only increase the region's attractiveness for tourists but also ensure its sustainable development in the long term.

The development of effective mechanisms for the sustainable development of recreational tourism on the Alakol shoreline is a relevant and necessary task for preserving the region's unique natural environment, increasing its attractiveness for tourists, and ensuring long-term economic and social development. During the study, key tasks were set and solved, allowing for a comprehensive assessment of the current situation and the development of practical recommendations for the effective growth of tourism in this unique natural area.

1. Assessment of the current situation in the field of recreational tourism on the Alakol shoreline

2. Identification of environmental and socio-economic risks associated with tourism development in the region

3. Development and implementation of ecotourism routes and infrastructure solutions

4. Analysis of the best global practices and their adaptation to the conditions of the Alakol shoreline

5. Recommendations for developing infrastructure and the social component of tourism

6. Involvement of local residents in the decision-making process

Based on the conducted analysis, it can be concluded that the Alakol shoreline has immense

potential for the development of recreational tourism. However, to realize this potential, it is necessary to develop effective management mechanisms and sustainable tourism strategies that will take into account ecological, social, and economic aspects. The implementation of such approaches in both the short-term and long-term will not only enhance the region's attractiveness for tourists but also ensure its environmental sustainability and the well-being of the local population.

A unified centralized approach to regional development is needed, into which private hotels, accommodations, and dining establishments should fit. In this case, it will be much easier, cheaper, and more effective to develop and maintain the infrastructure. For this, it is necessary to have a development plan for at least 10 years ahead, taking into account the ecological capacity of the entire region.

Thus, the development and implementation of effective mechanisms for the sustainable development of recreational tourism on the Alakol shoreline is an important step towards preserving the region's natural heritage, improving the quality of life for local residents, and creating a sustainable economy based on tourism. These measures could serve as a model for other natural areas in Kazakhstan that are striving for a harmonious balance between tourism and environmental conservation.

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