
Prospects of Preservation of Biological System of Regions due to Development of Ecological Tourism in the Republic of Tajikistan

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Abstract

The relevance of the study of the prospects for preserving the biosystems of the regions through the development of ecological tourism in the Republic of Tajikistan is explained by the importance of preserving the main resource of ecological tourism - the natural environment or its individual components, harmonization of the ecological and economic objectives of tourism development. The purpose of this study is to determine the prospects for the preservation of regional biosystems through the development of ecological tourism in the Republic of Tajikistan. As the results of the study showed, the development of ecological tourism in Tajikistan is promoted by the formation of regional ecological zones covering a large area that have unique natural and recreational resources of interest to foreign tourists. But, despite the availability of opportunities and development prerequisites, ecological tourism in the Republic of Tajikistan is in its infancy. According to expert estimates, the main base for the formation and development of ecological tourism in the republic is the Tajik National Park, which is formed to protect the landscape, rare and endangered species of flora and fauna, nature, culture and history, as well as the development and rationalization of tourism. The study emphasized that along with the positive aspects of the preservation of the region's biosystem in the Tajik National Park, there are a number of problems that hinder the development of eco-tourism. As a result of the analysis of existing scientific research conducted by the polls, the article suggests ways to solve these problems. The article will be useful for regional and federal authorities, educational institutions that prepare students in the direction of "tourism", as well as for all those interested in the conservation of biosystems and the development of ecological tourism.

Keywords: ecological tourism, biosystem, tourist stream, park, reserve, Republic of Tajikistan

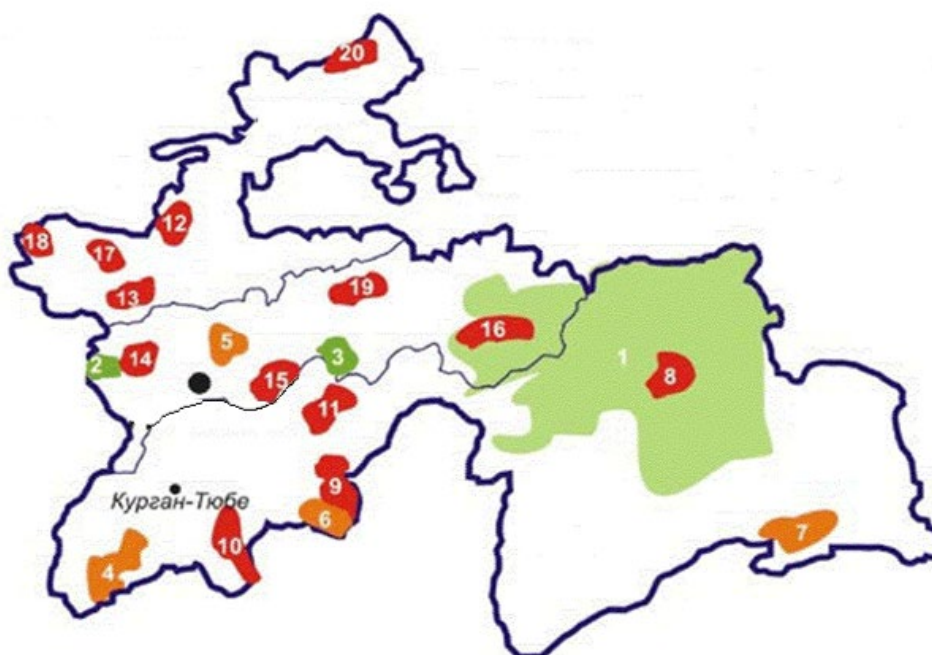
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INTRODUCTION

As part of the globalization of the world economy, tourism is a promising industry and the tourism market is gradually expanding without leaving any country in the world without attention, including the Republic of Tajikistan.

Tourism has a wide range, as it affects all the features of the economy, society and nature (Vinogradova et al. 2015). This area covers more than one hundred destinations and one of the leading areas is ecotourism.

Ecotourism is the direction in the tourism industry that is vitally interested in preserving its main resource - the natural environment or its individual components (natural monuments, certain types of animals or plants, etc.). The Foundation of ecological tourism is the preservation of Biosystems of the region, a complex network of biologically relevant organizations at the macro level. Republic of Tajikistan possesses colossal natural conditions and resources and is a tourist destination.



Parks	Nature reserves
1. Tajik National Park	4. Tiger beam
2. Historical and Natural Park "Shirkent"	5. Romit
3. Natural Park "Sari Khosor"	6. Dashtijum
	7. Zorkulsky
Reserves	
8. Muzkol	15. Nurek
9. Dashtidzhumsky	16. Sangvor
10. Karatau 17. Saivotinsky	17. Saivotinsky
11. Childuchtaron	18. Zerafshansky
12. Kusavlinsky	19. Kamarousky
13. Iskanderkul	20. Aktash
14. Almasinsky	

Fig. 1. The layout of parks, reserves and wildlife areas in the territory of the Republic of Tajikistan

Among all areas of tourism, it is ecological tourism that is developing rapidly, as the ecological environment in many countries of the world is in distress. Proceeding from the fact that the bulk of foreign tourists coming to the Republic of Tajikistan falls on the share of developed countries (France, Germany, Austria, etc.), the healthy ecological environment of country leaves them with a unique feeling.

Despite the availability of opportunities and development prerequisites, ecological tourism in the Republic of Tajikistan is in its infancy. Ecotourism trips are organized mainly at an amateur level, commercial activity in this direction is only in its infancy.

METHODOLOGICAL FRAMEWORK

The methodological basis of this study was the work in the field of research on the development of tourism in Tajikistan, the natural resource potential of regional territorial ecosystems. To carry out this study, the

authors of the article used systematization and generalization methods, content analysis, and expert assessments.

RESULTS

Assessment of Tajikistan's Ecotourism Resources

Since the main role in the formation of ecological tourism is played by the natural factor, in order to determine the prospects for preserving the regional biosystems through the development of ecological tourism, the ecotourism resources of Tajikistan will be assessed.

The Republic of Tajikistan possesses vast and sufficient ecotourism resources (**Fig. 1**), the use of which, along with the growing demand for tourism services, will naturally lead to the intensification of infrastructure development and the territorial organization of ecotourism.

On the territory of the country, it is customary to distinguish between six physiographic areas, which are the basis for the organization of ecological tourism.

- the hot desert plains of West Fergana;
- semi-arid steppe mountains of the Zarafshan basin;
- wet meadow-forest mountains of Gissar-Darvaz;
- desert and steppe dry mountains of the Southwestern Pamir;
- cold deserts of the highlands of the Eastern Pamirs
- hot ephemeral foothills of the valley of the Tajik Depression

Each of the above areas has a unique ecological and economic assessment. Tajikistan is not a center of tourism, such as Turkey, but there are many tourists who want to visit the country and see the exotic nature of the country. In the 21st century, eco-tourism is the most popular form of recreation. One of its directions is an active rest in the places preserved in its original form, which include the Tajik national Park, tiger beam, high mountain ranges of the Pamirs, lake Zarafshan range, etc.

According to the results of the study, the development of ecological tourism in Tajikistan contributes to the formation of regional ecological zones covering a large area with unique natural and recreational resources of interest to foreign tourists. According to expert estimates, the main base for the formation and development of ecotourism is the Tajik National Park (TNP).

Preservation of Regional Biosystems in the Tajik National Park (TNP)

National parks of different countries differ from each other by location, geographical advantage, ecological efficiency, but they are all similar in that the main purpose of their creation is to preserve the biosystem of the region.

Let us consider, the scientific base of the formation of the National Park in Tajikistan was still laid in the materials of the Integrated Expedition to study the productive forces of the Pamirs of the Academy of Sciences of the former USSR in the 30s of the last century, led by academician S.P. Gorbunov. However, the practical implementation is associated with the formation of independence of Tajikistan, i.e. in the

years when as a special basis for the development of tourism, especially environmental, was formed to protect the priceless landscape, rare and endangered species of flora and fauna, nature, culture and history, development and rationalization of tourism, and support the rational use of natural resources Tajik national Park (TNP) (Yorov 2007a, 2007b). The Tajik National Park (TNP) is considered to be one of the largest protected areas of Tajikistan, occupying 2.6 million hectares of land, which represents 60% of the GBAO territory, 40% of the Lakhsh and Sangvor areas and 23% of the entire territory of Tajikistan. TNP was created on the area of 1.6 million hectares of land by Decision No. 267 of the Cabinet of Ministers of the Republic of Tajikistan dated July 20, 1992. In 2001, the area of TNP was expanded to 2,611,674 hectares of land by the Decree of the Government of the Republic of Tajikistan No. 253. In 2005, by Decree No. 147 of the General Directorate of the State Organization "OO PT TNP" dated November 9, 2005, a protected area was given to the Tajik National Park, which prohibits virtually any form of human activity in this territory.

This is the largest protected area in Central Asia, in which there are huge pristine natural rare complexes, which are degrading and diminishing, is the habitat of relict fauna and especially rare and endangered mammal species.

It should be noted that the Tajik National Park is characterized by a huge difference in absolute heights and divided mountain ranges.. Most of the territory is covered with stones and steep ridges. Countless rare mammals can be seen in the park, including the Pamir argali, snow leopards, red wolves, lynxes, and brown bears, which can be the object of ecological tourism. Also, you can find rare birds such as rock quail, Himalayan snowcock, golden eagle, African griffon and Alpine jackdaw (European Union Project: Developing National Environmental Strategies).

The development of ecotourism in this region contributes to the restoration of the ecological environment, the protection of the biosystem, as well as the preservation of rare endangered animal species that exist in this region, in particular, animal hunting and photohunting are developing.

As an example, we will cite the fact that using animals as a photo and tourist models is more cost-effective than killing them in hunting or fishing. In Ambosela National Park, which is located in Kenya, one lion, posing for tourists, brings in a year \$ 27,000, and a herd of elephants - \$ 610,000. These indicators are not

only significantly higher than the market value of the skins of a lion or elephant tusks, but also economically justify the costs of protecting and restoring the populations of these animals (Hrabovchenko, 2003). The Tajik National Park “Pamir Mountains” is included in the UNESCO World Heritage List:

- Contains unique natural objects of exceptional beauty and aesthetic value;
- Represents the main stages of land development, important geological processes of land formation, and valuable geomorphological and physiographic features of the landscape;
- This zone is an excellent example of significant ecological and biological processes of the evolution of the ecosystem, as well as plant and animal communities;
- Contains natural habitat, the most important and valuable for the conservation of biological diversity in the region, including areas with endangered species, representing the outstanding global capital (value) from a scientific point of view and the preservation of nature.

Several signs of TNP define this particular zone as a truly unique resource of global significance.

The National Park is a relatively new category of conservation in Central Asia, and such zones are strictly protected as reserves, largely forbidden to be visited by the local, regional, and international community. Tourists visiting the area, management involvement, and recreational potential are under consideration, which was usually not included in the management of the reserve.

Barriers to the Development of Ecological Tourism and Their Solutions

Along with the positive aspects of the preservation of the biosystem of the region in consumer goods, there are a number of problems that hinder the development of ecological tourism. One of them is the difficulty of establishing a sustainable coexistence of the Park with the locals. Many wild nature parks, such as Kakadu, face serious difficulties in interacting with local inhabitants. Others, such as the wild nature of New Zealand, are confronted with the management of unusual exotic species that influence their natural systems.

Unlike most places in the developing world, TNP provides a place to live for scattered human settlements,

which, on the one hand, is combined with the objectives of the management of the Park. Coexistence with the villagers has been a reality here for centuries. The Bartang Valley has a capacity of 2,000 people, and in the Park it is estimated that there are only about 5,000 inhabitants. In 2016, about 15,000 people lived in the TNP buffer zones, with a total population of 16,078 people within the Park region.

The reason for objections against eco-tourism is the presence of large corporate businesses in this movement, the tourist boom in nature reserves and national parks, corruption of environmental officials from authorities, the vagueness of the concept of “ecotourism”, which allows to engage in non-environmentally friendly activities. The “green” public of Central Asia was wary of the idea, fearing that under the beautiful slogan hunting for animals from the Red Book, and the collection of rare medicinal plants, and the violation of the regimes of nature reserves could be hidden.

Tour operators, of course, are not able to track every tourist who goes on nature at the weekend and considers himself an ecotourist, and inform him about the “importance of reducing the negative impact of their stay on the environment.” At the same time, it is not necessary to assume that the development of a Central Asian type of “ecotourism” is a harmless occupation against the backdrop of beautiful mountain landscapes. In national natural parks and even nature reserves, the pursuit of profit (and in local conditions, just making money for employees of nature reserves) against the background of the increasing popularity of “ecotourism” is fraught with the destruction of the ecosystems for which protected objects were created. Ecotourism, like other types of tourism and nature-oriented recreation, is primarily a kind of nature management. There are no forms of environmental management without the removal or deterioration of resources. Consequently, ecotourism also causes some harm to the environment. Only responsible tourism around or in protected natural areas does not cause damage to the environment, contributes to the economic and cultural development of the local population, with mandatory educational and informational components - this is ecotourism.

Tourists arriving in the national park should be educated and informed in terms of respect for natural resources.

Ecotourism really exists, firmly entrenched in the villages around national parks and reserves, makes profit

for travel agencies and the rural community, but disputes about its harm or benefits to nature do not stop.

The next problem of the functioning of the TNP is an underdeveloped infrastructure. The pattern of infrastructure organization is almost the same throughout the region; these are guest houses in villages around natural sites. These are ordinary houses of local residents with little maintenance and some landscaping under the guidance of tour operators. In places where tourism is more developed, in the mountains of Western Tien Shan, Uzbekistan, there are specially built accommodation facilities: cottages or “bungalows”.

The guest house institute came to the republic from the world practice of ecotourism, along with the great idea of creating biosphere reserves, but unlike the reserves, it harmoniously fit into the rural oriental reality, where the mentality of the locals was always distinguished by hospitality. Villagers do not need to teach reception of tourists, because warm hospitality in the region is a component of everyday life. The hospitality of residents to some extent compensates for the lack of necessary infrastructure: dry closets and showers in guest houses, the absence of an English-speaking guide, booklets or books about a natural object, which should accompany and help the “ecotourist”.

It should be emphasized that the reception of tourists in guest houses in those countries of Central Asia, where it has been developed in recent years, is the same. It does not matter, in Kazakhstan, Kyrgyzstan, Tajikistan or Uzbekistan, the whole family of the owners of the guest house will meet the tourists, they will provide food and escort during walks. Therefore, being a tourist or an “ecotourist” in Central Asia is a real pleasure.

Based on surveys and interviews of tourists, local residents, tourism organizers, the study summarized the following problems hindering the development of ecological tourism in Tajikistan:

- lack of highly qualified personnel in the process of territorial organization of tourism;
- poor knowledge of tourist and recreational systems and their economic evaluation;
- lack of financial instruments;
- low level of environmental awareness of the population living in tourist and recreational areas, and some employees of tourist institutions;

- weak organizational structure of tourism management

Based on this, with a view to the future prospects of ecotourism, the following things will be suggested:

- reducing the tax burden on both domestic and foreign investment in the field of tourism;
- comprehensive study of tourist and recreational areas;
- conducting training seminars for the staff of tourist institutions;
- organization of hostels in cities and regions of the country;
- ensuring the safety of tourists;
- improving the investment climate in the field of tourism;
- improving the regulatory framework in the field of environmental management and tourism;
- Improving the environmental situation in rural areas;
- organization in all territories of the Republic of Tajikistan of various sports events on extreme types of tourism;
- use of foreign experience (in particular Kyrgyzstan) in the organization of recreational complexes.

In our opinion, depending on the geographical location and tourist and recreational potential, the territory of the Pyanjikent and Aini districts, as well as the valley of the Bartang river can be declared as zones of international tourism, which positively affects the development of tourism, especially ecotourism in these territories.

DISCUSSIONS

Issues of the development of ecological tourism are considered in the works (Galushkin 2015, Hrabovchenko 2003, Vasilyeva and Matveeva 2017, Zavadskaya and Yablokov 2013), many works are devoted to the development of tourism in the Republic of Tajikistan (Amonova 2018, Gadoyev 2017, Kabilova 2017, Minzhesova and Saakova 2011, Nozirzoda 2016, Nematov 2016, Shukurov 2004). However, in these works little attention is paid to the conservation of

regional biosystems through the development of ecological tourism.

This study is a continuation of the previously conducted research of authors in the field of ecological tourism (Bunakov et al. 2018, Korneevets et al. 2018, Yorov 2005, 2007a, 2007b, Yorov and Kuvatbek 2017, Zaitseva et al. 2018). As part of this article, the task was set to clarify the prospects for preserving the regional biosystems through the development of ecological tourism, assessing the positive and negative effects on the biosystem of the region of developing ecological tourism in Tajikistan.

In this article, in contrast to the previously existing research on the development of ecological tourism, not only the problems holding back the development of ecological tourism are clarified, but also recommendations for development on the example of the Republic of Tajikistan were offered.

CONCLUSION

World experience shows that the flow of tourist groups is increasing not only in those countries that have a classical market economy, but also in those countries that have a better ecological environment. In

this regard, Tajikistan 93% of the territory of which is covered by mountains, a country that has a huge number of rivers, glaciers, thermal waters, clean mountain air, and special traditions of land use and pasture experience, given the lack of land and labor redundancy, could reasonably develop and transform the use of resources in the development of ecological tourism (Yorov 2007a, 2007b).

At the same time, it is the mountainous regions that have low indicators of socio-economic development. Many researchers believe that the development of mountain ecotourism will help to reduce the gap between the lowland and mountain regions (Hrabovchenko 2003). Since Tajikistan is a mountainous country, it is natural to assert that ecological tourism is one of the priority directions of tourism.

Thus, the study showed that the Republic of Tajikistan has vast and sufficient ecotourism resources, the use of which, along with the growing demand for tourist services, will naturally lead to the intensification of infrastructure development and the territorial organization of ecotourism activities.

REFERENCES

- Amonova DS (2018) The main directions of tourism development in the context of the regional characteristics of the Republic of Tajikistan. *Bulletin of the Tajik State University of Law, Business and Politics. Social Science Series*, 1(74): 52-59.
- Bunakov OA, Zaitseva NA, Larionova AA, Zigern-Korn NV, Zhukova MA, Zhukov VA, Chudnovskiy AD (2018) Development Perspectives of "Last Chance Tourism" as One of the Directions of. *Ecological Tourism Ekoloji*, 106: 441-447.
- European Union Project: Developing National Environmental Strategies for Sustainable Development (Kazakhstan, Kyrgyzstan, Tajikistan) (2007) Pilot Project for Tajikistan. Project No: EuropeAid122149/C/SV/MULTI. Dushanbe, pp. 3-8.
- Gadoyev ShD (2017) On the issue of creating an effective tourism management system on the territory of the Dashti Jum reserve in the Republic of Tajikistan. *University Bulletin (Russian-Tajik (Slavic) University)*, 3(59): 149-154.
- Galushkin A (2015) Education in the field of national information security in the Russian Federation and abroad. *Journal of Computer Science*, 11(10): 988-994.
- Hrabovchenko VV (2003) *Ecological tourism*. Moscow: Finance and Statistics
- Kabilova NN (2017) The development of eco-tourism is a promising form of sustainable development in Tajikistan. In the collection: Materials of conferences GNI "National Development". Collection of selected articles, pp. 14-17
- Korneevets VS, Zaitseva NA, Dragileva II, Dmitrieva NV, Silaeva AA, Boboshko VI, Boboshko NM (2018) Development Problems and Prospects of Environmental Tourism in the Territory of an UNESCO World Heritage Object "Curonian Spit" in Cross-Border Cooperation Projects. *Ekoloji*, 106: 1667-1673.
- Minzhesova OO, Saakova VA (2011) Tajikistan as a promising direction for the development of tourism in Central Asia. In the collection: Tourism and recreation potential and features of the development of tourism materials of the international scientific-practical conference of students and graduate students, pp. 112-116.

- Nematov AM (2016) Southwest Tajikistan: resources for the territorial organization of tourism and recreation. Bulletin of the Tajik National University. A series of socio-economic and social sciences, 9(218): 148-152.
- Nozirzoda ShS (2016) Ecological tourism in Tajikistan. Modern research and development, 6(6): 406-408.
- Shukurov BU (2004) Problems of development of international tourism in the Republic of Tajikistan. Materials of the republican conference "Integration of the economy of the Republic of Tajikistan into the world economy". Dushanbe, pp. 10-15.
- Vasilyeva AA, Matveeva AA (2017) Eco-tourism and the environmental impact of tourism. In the collection: Ecology and human health. Harmony with the outside world Materials of the scientific-practical conference, pp. 103-107.
- Vinogradova MV, Larionova AA, Povorina EV, Suslova IA, Korsunova NM (2015) Development of social tourism: organizational, institutional, and financial aspects Regional and Sectoral Economic Studies, 15(2): 123-136.
- Yorov DN, Kuvatbek S (2017) Tourism in the Republic of Tajikistan: problems and prospects. Bulletin of the Tajik National University. A series of socio-economic and social sciences, 2(2): 20-23.
- Yorov JN (2005) Recreational resources as a basis for recreation and tourism. Proceedings of the republican conference "In the name of peace and happiness on earth." Dushanbe, pp.178 - 181.
- Yorov JN (2007a) Development of tourism in the market. Dushanbe: Irfon
- Yorov JN (2007b) State, problems and prospects of development of tourism in the Republic of Tajikistan. Bulletin of the Tajik State National University, 6(38): 192 – 206.
- Zaitseva NA, Larionova AA, Filatov VV, Rodina EE, Zhenzhebir VN, Povorina EV, Palastina IP (2018) Natural-Resource Potential Management of Region's Territorial Ecosystems Issue. Ekoloji, 106: 495-502
- Zavadskaya AV, Yablokov MV (2013) Ecological tourism in specially protected natural territories of the Kamchatka Territory. Problems and prospects. Moscow: Krasad.