Assessment of Eco Tourist Potential of Recreational Places of Samarkand Region

Penilaian Potensi Wisata Ramah Lingkungan dari Tempat Rekreasi di Daerah Samarkand

S.N. Sadikova *, J.R. Sadikov

Samarkand State Architectural and Civil Engineering Institute, Uzbekistan
*Email to Correspondence: sitorasadykova@gmail.com

Abstract. The article covers some research data on the potential for the development of eco-tourism in recreational suburban places of the Samarkand region, in particular: Mirankul, Tepa-kul, Agalyk, Nurbulok, Amankutan, Dobusiya, Yukori Chinor, Ming Archa, Kattakurgan reservoir, Zarafshan river and others. The electronic social questionnaire Survey 123 Online of software ArcGIS from Esri was created to survey the local population of Uzbekistan on specific answers from various age groups of society. The author collected an opinion of local people about: favorite of the types of active and passive rest of the population in places of countryside rest places of the Samarkand region; the characterization of each of the presented country vacation spots was made public; the most popular time of year for going on nature in the Samarkand region; positive and negative features of specific suburban recreation areas were identified, most popular of them were matched on the map of the Samarkand region. The opinion of people about the most polluted recreation site of the Samarkand region and on possible method of penalization for vandalism and damage to flora and fauna in Uzbekistan was also revealed. All these data were processed in Excel, the statistical program SPSS, based on these data, charts, graphs and maps were compiled.

Keywords- eco-tourism; nature; recreation; tourist infrastructure; sociological survey; suburban place; ecology; potential

INTRODUCTION

Assessment of eco tourist potential of recreational places of Samarkand region

Speaking about ecotourism, it is difficult not to overestimate its advantages, its benefits and the positive impact that this type of tourism makes in a certain region, where all the presumptions of its rapid development were created.

Ecotourism inculcates a value system, such as contemplating nature, being involved in safeguarding the natural heritage and supporting the traditional culture of local communities. Ecologic tourism as active form of recreation that includes its main aspects as:

An active form of recreation
the rational use of natural goods
the contemplation of nature
Increases a love of healthy living
involvement in the protection of the natural heritage
support of the traditional culture of local communities

The main goal of ecotourism is practical acquaintance with the natural, cultural and ethnographic features of the area - the integrity of the ecosystem is not violated. Such economic conditions are created under which the protection of nature and natural resources becomes beneficial for the local population.

This direction is rapidly developing every year in Uzbekistan. More and more Uzbek and foreign tour operators include the organization of eco-tours in the portfolio of services. Moreover, a number of companies specialize exclusively in this area. Because it is no secret to anyone that Uzbekistan is not only a treasury of world-famous ancient monuments of history and architecture: the country’s climatic features give enormous scope for eco-tourism. Desert tours, mountain trips to glaciers, trips to protected areas. Initially, the sphere of tourist interests in Uzbekistan includes both active leisure and sports tourism, and travel for educational purposes, where the object of knowledge is the rich archaeological and religious history of our country.

According to the concept of development of the tourism sector for 2019-2025, approved by Decree of the President of the Republic of Uzbekistan Shavkat Mirziyoyev: «for the period 2010-2017, the export of tourist services doubled and amounted to 546.9 million US dollars in 2017, and in 2018 - 1,041 million US dollars. The aver-
The average annual growth rate of foreign visitors until 2016 was 8%, in 2017 - 7% and exceeded 2.69 million people. At the end of 2018, the republic was visited by about 5.3 million, and in 2019 a record number of almost 7 million foreign tourists. 

Along with traditional tourism in our country, there are all prerequisites for the development of ecotourism, which will undoubtedly create favorable investment conditions in the tourism sector. Distinctive features of ecotourism are the satisfaction of the recreational demand of the local population and tourists, without negative impact on the ecology of the region. However, it is eco-tourism because it is also “Eco”, which is obliged to serve for the good of nature of Uzbekistan, its biodiversity and ecology. It should be emphasized that it is an unimportant fact that the development of ecotourism contributes to an increase in the environmental, educational and cultural level of both visitors and local residents.

However, increasing the flow of tourists will require the urgent implementation of environmental measures, increasing the responsibility of tour organizers for not violating the integrity of nature, respect for natural resources, for cleanliness of the area and fire safety. I would like to see now a sensitive attitude towards nature not only from the side of visitors, but also from the entire population of Samarkand region and the country as a whole. It must be remembered that the well-being of people here largely depends on the "health" of natural zones.

The Decree of the Cabinet of Ministers of the Republic of Uzbekistan “On some issues of tourism development in the Republic of Uzbekistan” dated March 10, 2015, developed an action plan to strengthen and develop the ecotourism potential of Uzbekistan. In accordance with the plan, Zarafshon State Reserve is defined as a priority development zone, where conditions are created for the development of tourism. Work in this direction is carried out in the recreation areas of the Urgut region “Yukori Chinor”, “Ming archa”, as well as in the mountain village of Agalyk, Samarkand region, in the sanatorium “Nurbulok” of the Nurabad region, in the area of the “Dobusiya” fortress of the Pakhtachi region and in other places.

**METHODS AND MATERIALS**

In order to make a feasible contribution to the further development of eco-tourism in Uzbekistan, to identify the real situation in the vacation spots of the Samarkand region, I conducted a study of the level of ecotourism potential in these recreation areas, as part of an internship under the doctoral program of the DSinGIS scientific project under the auspices of Erasmus +, held in the department Geoinformatics Techno,Z University of Salzburg, Austria. 

The research method is to identify the strengths and weaknesses of places of short-term out-of-town recreation of Samarkand Region, the level of development of ecological tourism in the region, and negative factors that impede this. As was revealed during the study, a social survey of the population is an effective mechanism for implementing this method. A social survey was conducted using Esri’s ArcGIS software Survey 123 Online, which, based on specific answers from different age groups, revealed
important data for further processing in the SPSS statistical program. [3]

In the process of compiling this extensive and interactive online survey using Survey 123 online from ArcGIS, the following were identified:

1. data on the types of recreation preferred by the people of Uzbekistan in the lap of nature: active, wellness, extreme, child-family, passive relaxation (Figure 1);
2. the frequency and seasonality of rest in the lap of nature of the Samarkand Viloyat (how many times a year and at what time of the year is preferable for traveling outside the city);
3. concretization of the location and level of popularity of out-of-town places (Zarafshan, Mirankul, Tepa-kul, Agallyk, Nurbulok, Amankutan, Dobusiya, Yukori Chinor, Ming archa, Kattakurgan reservoir, etc.) for family out-of-town recreation, for companies of friends and colleagues, for sports groups and extreme sports.
4. the opinion of the local population about the possible facts of environmental pollution in the above recreation areas; it was proposed to name the most polluted suburban resting place in the Samarkand region;
5. people’s opinions on punishment for vandalism and clogging of natural places of rest and damage to nature.
6. tips and specific suggestions from people on improving suburban recreation areas of the Samarkand region, and much more.

RESULTS AND DISCUSSION

Results

Using the ArcGIS program, online maps were compiled showing the preferred vacation spots for the population of the Samarkand region, taking into account their location in the nature protection zone or not, taking into account their remoteness from the city, as well as attendance. [4] For the ability to map and acquire the skill of working with maps, layers, Shp files, the basics of the Quantum GIS (QGIS) program were also studied.

For the subsequent multifaceted work - phased processing of statistical data, the basics of such computer programs as Acces, Exell, SPSS were studied. (See Diagrams No. 1-8) In the course of processing the results of the questionnaire, a complex system of calculating statistical data, such as SPSS Statistics, became necessary. Abbreviation “Statistical Package for the Social Sciences” - is a computer program for statistical data processing. [5]

As Diagram No. 1 shows, the seasons preferred for rest are: - spring 59%; summer -19%; winter - 16%; autumn -6%. As Diagram No. 2 shows, out of 80 people surveyed, 38% are women and 62% are men.

In the course of a sociological survey, the respondents were given the opportunity to give advice and recommendations for the comprehensive improvement of the level of out-of-town places of Samarkand Region. [6]

In Diagram No.5, the results of the respondents’ opinions on measures to combat pollution of natural places of suburban recreation of Samarkand Region are revealed. [7] The most popular answer is - fines of 52.94% of respondents and administrative punishment of 47.06%.

The social survey also identified important criteria for choosing a place for a country holiday in Samarkand Viloyat. To the question: “What is important for you when choosing a place for a country vacation?” In the answers in the first place is the “picturesque landscape” and “guarantee of safety on vacation” - 58.82%; In second place - “A place for passive rest and relaxation” - 47.06%; The respondents took the last place - “Extreme kind of relaxation in the lap of nature.” [8]

Note. The popularity of rural recreation areas of the Samarkand region. [8]

The championship belongs to suburban recreational places Yukori Chinor, Ming Arch and the coast of the Zarafshan River (the results of a social survey of the local population using the Survey123 for ArcGIS program)

CONCLUSION

Thus in conclusion, summarizing the results of the study, we can conclude that the following recommendations can be effective measures for further sustainable development and improvement of ecological tourism in the Samarkand region:

I. Laying high-speed roads and railways to specialized places of country recreation, organization of transport accessibility at affordable prices (environmentally friendly modes of transport - trains, trams, trains).

II. The organization of safe suburban recreational areas that primarily meet all standards of environmental protection measures and the safety of lovers of relaxation in the “wilderness”, mainly in places with frequent natural disasters (mudflows, avalanches, rock falls, fires). And the safety of nature itself and its biodiversity from vandalism of people - visitors, their gross invasion of the corners of the wild.

III. Mass training, awareness of the country’s population with the so-called “Environmental education” is a set of rules on how to relax in the lap of nature, how to behave in emergency situations and what absolutely forbidden “away” in the wild.

IV. Improving the activities of existing vacation spots, by ensuring a balance of prices and quality of services to holidaymakers, regardless of their citizenship;

V. Ensuring the comfort of vacationers in the lap of nature, provided that the environment is preserved and...
Figure 2. The social questionnaire was widely distributed by reference and QR code (Facebook, Telegram, Email, Instagram, etc.)

Figure 3. The results of a social survey of the population Survey123 from ArcGIS
Figure 4. Diagram No. 3 Shows the popularity of activity of the people surveyed by Survey 123 Online

![Diagram of popularity of activities](image)

fauna is protected. Organization: a) bio toilets; b) strictly designated places for swimming and cooking, making fire under strict control; c) the provision of fines and administrative penalties for vandalism and damage to the nature of our region.

VI. A clear distinction between recreational areas and those that should be strictly forbidden to visit due to disturbance, imbalance and unintentional damage to animals and the entire biodiversity of those wild places where so many uninformed “guests” tend to seek.

REFERENCES

[1] K. P. R. U. tanggal 5 Januari 2019 N UP-5611, “National Database Legislation of the Republic of Uzbekistan,” Uzbekistan, 2019. [Online]. Available: https://nrm.uz/contentf?doc=574255_koncepciya_ravitiya_sfer_turizma_v_respublike_uzbekistan_v_2019-2025_godah_(prilojenie_1_k_ukazu_prezidenta_ruz_ot_05_01_2019_g_n_up-5611)

[2] I. Candrea, “Visitor Management, a tool for sustainable tourism development In Protected Areas,” *Series V: Economic Sciences*, vol. 2, 2009.

[3] S. A. Wood, A. D. Guerry, J. M. Silver, and M. Lacayo, “Using social media to quantify nature-based tourism and recreation,” *Scientific Reports*, vol. 3, no. 1, pp. 2976–2976, 2013. [Online]. Available: 10.1038/srep02976;https://dx.doi.org/10.1038/srep02976

[4] S. Hennig, “Going Ahead: From Visitor Monitoring to Recreational Use Monitoring—The Example of the EU Regional Recreation Area Berchtesgaden National Park/,” and others, Ed. Russian: Exploring the Nature of Management, 2006.

[5] S. N. Sadykova, “Scientific recommendations for the revival of Chor-bag gardens,” ser. Russian, and others, Ed. Young Scientist, 2013, pp. 91–98. [Online]. Available: https://moluch.ru/archive/50/6077/(accessed:07/06/2018)

[6] S. N. Sadikova, “Sound insulation of enclosing struc-
Figure 5. Diagram No.4

Figure 6. Diagram No.5.
Figure 7. Diagram No. 6 Ecotourists’ opinions on how to improve the places of recreation in Samarkand region

Figure 8. Diagram No. 7 Differences by age groups that prefer to have a rest in different countryside rest places of Samarkand Region
tures of buildings and monuments,” International Scientific Journal ISJ Theoretical & Applied Science Philadelphia, vol. 82, no. 2, 2020.

[7] J. Zelenka and J. Kaceti, “Visitor management in protected areas,” Czech Journal of Tourism, vol. 2, no. 1, pp. 5–18, 2013.

[8] U. Immoos and M. Hunziker, “The effect of communicative and on-site measures on the behaviour of winter sports participants within protected mountain areas – results of a field experiment,” eco.mont (Journal on Protected Mountain Areas Research), vol. 7, no. 1, pp. 17–25, 2015. [Online]. Available: 10.1553/eco.mont-7-1s17; https://dx.doi.org/10.1553/eco.mont-7-1s17

Conflict of Interest Statement:
The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Article History:
Received: 2020-05-07 | Accepted: | Published: 2020-05-14