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## NATIONAL NATURE-BASED TOURISM IN SAMARKAND REGION

### ABSTRACT

The article analyses the data on the assessment of the potential of nature-based tourism in Samarkand Region. Esri's ArcGIS social Survey 123 Onlinewas created for data collection and subsequent analysis in statistical programs. This method revealed vacation spots Amankutan, Agalyk, Mirankul, Tepa-kul, Nurbulok, Dobusiya, Yukori Chinor, Ming Archa, Kattakurgan Reservoir, Zarafshan river and others on the basis of opinions of representatives of local population of Uzbekistan about each location. The sociological survey identified: the most polluted vacation spots; the pros and cons of specific suburban recreation areas; popular types of active and passive suburban recreation; opinion on effective penalties for vandalism and damage to flora and fauna. Eco tourism and nature tourism should be clearly distinguished.

Natural tourism is all types of tourism that use natural resources in wild or undeveloped natural areas: bird watching, forest trips, safaris, fishing, hunting, photography. It should be noted that ecotourism is distinguished by satisfying the recreational needs of visitors and hosts, for the benefit of the local population and without negative impact on the ecology of the region. "Eco" is obliged to serve for the benefit of nature, its biodiversity and ecology. Consequently, the development of ecotourism contributes to the improvement of the ecological, educational and cultural level of the state society as a whole. The recommendations for effective environment-friendly use of nature-based tourism potential of Samarkand Region of Uzbekistan are presented.

**KEYWORDS:** ecotourism, nature-based tourism, nature protection, Samarkand Region, Uzbekistan

### INTRODUCTION

The leisure, tourism and recreation industries are among the largest and steadily growing ones in Uzbekistan. Particularly, eco-tourism and nature-based recreation are characterized by high growth rates. Both are not only important components of many national, regional, and local economies but they also contribute to quality of life, sense of place, social connection, physical well-being, and learning in many ways.

Literature outlines that eco-tourism and nature-based recreation are related to the performance of different types of outdoor activities (e.g. hiking, trekking, cycling, horse riding, canoeing, snow shoeing and ski mountaineering, nature observation, picnic)<sup>3</sup> [Immoos, Hunziker, 2015]. These activities are typically performed in natural settings or otherwise involving elements of nature (e.g. terrain, plants, wildlife, water bodies). Hence, popular designations for eco-tourism and nature-based recreation are areas of certain natural setting and scenic beauty little influenced by man. [Newsome et al., 2001; Kuenzi, McNeely, 2016]. This refers to protected areas (e.g. nature parks, protected landscapes, national parks, biosphere reserves and wilderness areas) and especially to many developing counties [Candrea, Ispas, 2009].

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<sup>3</sup> BN Bundesamt für naturschutz.d., Natur Sport. Info. <https://natursportinfo.bfn.de/>.(accessed 24.06.2019)

In Uzbekistan the interest of the local population in eco-tourism and nature-based recreation has been and is increasing.

Quoting the Deputy Prime Minister of the Republic of Uzbekistan, Aziz Abdulkhakimov: "... If in 2017 we had 2.7 million tourists, then in 2018 this figure increased to 5.4 million". Abdulkhakimov notes, that "only in 1<sup>st</sup> quarter of 2019, 1 million visitors have already visited Uzbekistan"<sup>1</sup>. According to the State Committee of the Republic of Uzbekistan for Tourism Development there is a comparative data for Uzbekistan visitors November 2018 and 2019<sup>2</sup> (table 1).

The climatic potential of the Republic of Uzbekistan is rich and diverse. The development of ecotourism in Uzbekistan is promoted by state policy in the field of environmental protection and biodiversity conservation. An extensive network of protected natural areas has been created in the Republic. "Great tourist potential have Chatkal, Zaamin, Nurata and other reserves, Ugam-Chatkal National Park, Ecocenter "Dzheyran" and other protected natural areas. Travelers are attracted by the diversity of the animal and plant world. It is also important that favorable weather conditions in our country make it possible to use the mid- and high-mountain regions all year round for skiing and hiking"<sup>3</sup>.

"Uzbekistan ranked 5<sup>th</sup> in the Solo Travel Safety Report 2019, produced by travel website Wegoplaces.me, which offers independent adventurers a guide to where to go and how to stay safe around the world. Singapore is scored the highest with a score of 97, followed by Norway, Iceland, Finland and Uzbekistan. This report focuses on an overview of the safest, riskiest, most peaceful and hostile countries. It also provides helpful tips for solo travel from the Foreign and Commonwealth Office (FCO)"<sup>4</sup>. In addition, it should be emphasized that, in recent years, the liberalization of the visa regime for citizens of foreign countries and the introduction of a visa-free regime have increased the attractiveness of Uzbekistan in the global tourism market. The diagram 1 shows the boost of the level of Uzbek tourism in 3 years.

However, an increase in the flow of tourists will require the urgent implementation of environmental measures: strengthening the responsibility of the organizers of the nature tours for the integrity of nature its natural wealth, for cleanliness and fire safety [Wood *et al.*, 2013]. The author would like to see now a sensitive attitude to nature, not only from 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.

Nowadays, in social networks in Uzbekistan there are more and more actively developing groups and communities of eco-tourism fans, for example:

- Facebook: MaroCup adventures club@marocupclub; GoTrip.Uz — in Uzbekistan; Uzbekistan Cycling Community, velosoobshestvo, Uzbekistan-the heart of Central Asia etc.
- Instagram: Mysterious Uzbekistan. Climbing tours, hiking in the mountains, skiing in snow-covered valleys, traveling up to the glaciers and mountain lakes, desert tours of Uzbekistan are becoming a very popular type of vacation not only for foreign but mainly local tourists.

Ecological tourism in the Republic is paid attention at the state level to the "Ecological Movement of Uzbekistan" is acting, representing its interests through a group of deputies in the "Supreme Chamber" of the Republic of Uzbekistan.

<sup>1</sup> <https://nuz.uz/ekonomika-i-finansy/40004-na-42-vyros-turpotok-v-uzbekistan-za-i-y-kvartal-2019-goda.html>

<sup>2</sup> <https://uzbektourism.uz/ru/research>

<sup>3</sup> <https://uzbekistan.lv/%D1%83%D0%B7%D0%B1%D0%B5%D0%BA%D0%B8%D1%81%D1%82%D0%B0%D0%BD-%D1%81%D1%82%D1%80%D0%B0%D0%BD%D0%B0-%D1%8D%D0%BA%D0%BE%D1%82%D1%83%D1%80%D0%B8%D0%B7%D0%BC%D0%B0/>

<sup>4</sup> <https://tashkenttimes.uz/culture/3440-uzbekistan-ranks-5th-in-solo-travel-safety-report-2019>

This requires paying attention and understanding the current situation of eco-tourism and nature-based recreation in Uzbekistan to counteract problems possibly caused by visitors. 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.

It would be advisable to give definitions of the concept of Nature based tourism and eco-tourism, to identify their common and distinctive features.

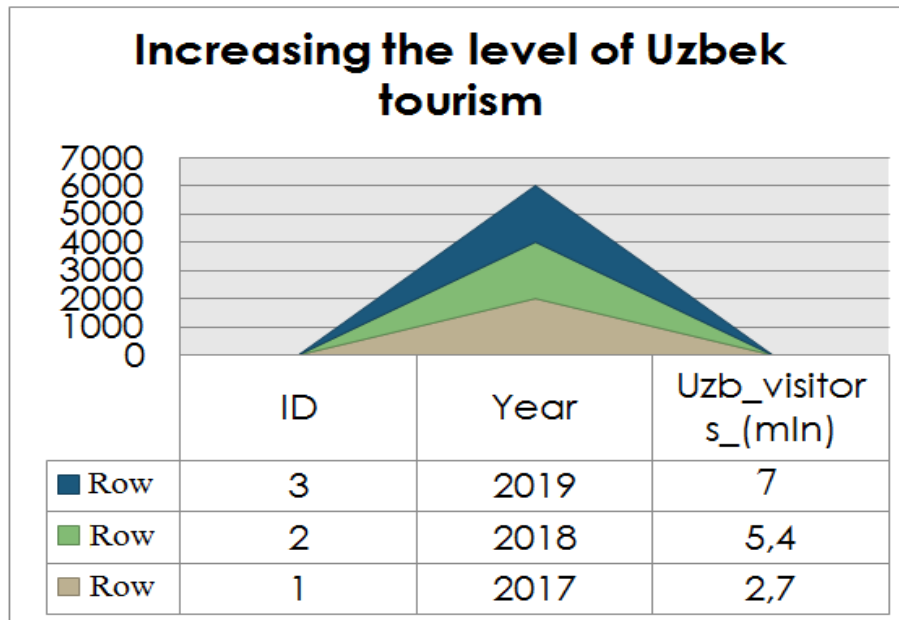


Fig. 1. Increase of the level of Uzbek tourism in 3 years

Table 1. Comparative data of incoming tourism in Uzbekistan, November 2018/19

№	Regions and countries	November 2018	November 2019	% growth
1.	Tourists from the CIS countries	451 508	600 623	33,0
2.	Tourists from far abroad	24 623	33 363	35,5
3.	Stateless persons	87	149	71,3
4.	All	476 218	634135	139,8

**Nature based tourism** — “is all forms of tourism, enjoying natural resources in a wild or undeveloped natural areas: birdwatching, camping, hiking, fishing, hunting, photography etc.” [Nyapane, 2007].

**Ecotourism** is defined as “responsible travel to wild nature which conserves the environment and improves the welfare of a local people” (The International Ecotourism Society, 2007, No 1).

Distinctive features of ecotourism are the satisfaction of the recreational demand of the visitor and hosts, without negative impact on the ecology of the region and with benefit to local population — “Eco” is obliged to serve for the good of nature, its biodiversity and ecology. It should be emphasized that development of ecotourism contributes to an increase in the environmental, educational and cultural level of society. Related to this there are several open questions which need to be answered:

- What are the features of the development of Uzbek nature-based tourism and ecotourism in Uzbekistan?
- What are the vacation spots of the Samarkand Region and what types of recreation are the most popular among the local population?
- What recommendations can be made to protect places of rural recreation and to improve the nature-based tourism system?

These questions are discussed in context with a case study done in Samarkand Region. In order to make a feasible contribution to the further development of nature based and eco-tourism in Uzbekistan, to identify the real situation in places of recreation in the Samarkand Region, we conducted a study of the features of the nature based tourism potential in these recreation areas.

To identify the public opinion of the local population of Samarkand Region about the preferences of a country vacation in the region a social survey was conducted. The author considered it appropriate to identify the following aspects:

- types of recreation in the lap of nature (active, passive relaxations, health healing & meditation, scientific research, etc.);
- popular active type of rest in the Samarkand Region natural areas (hiking, skiing, ba-cycling, swimming, climbing, etc.);
- overage duration of rest of the local people in the natural areas;
- concretization by matching popular vocation spots on a map.

## Popularity of Activities

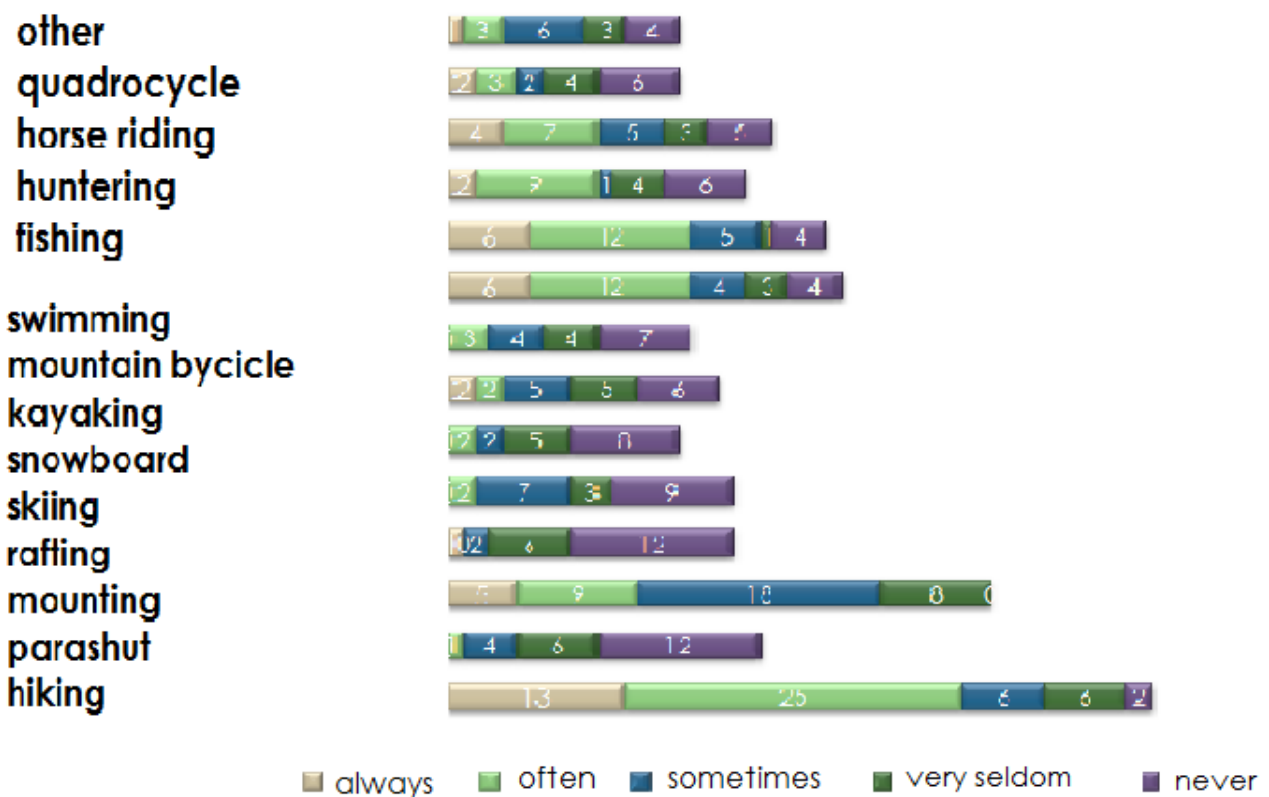
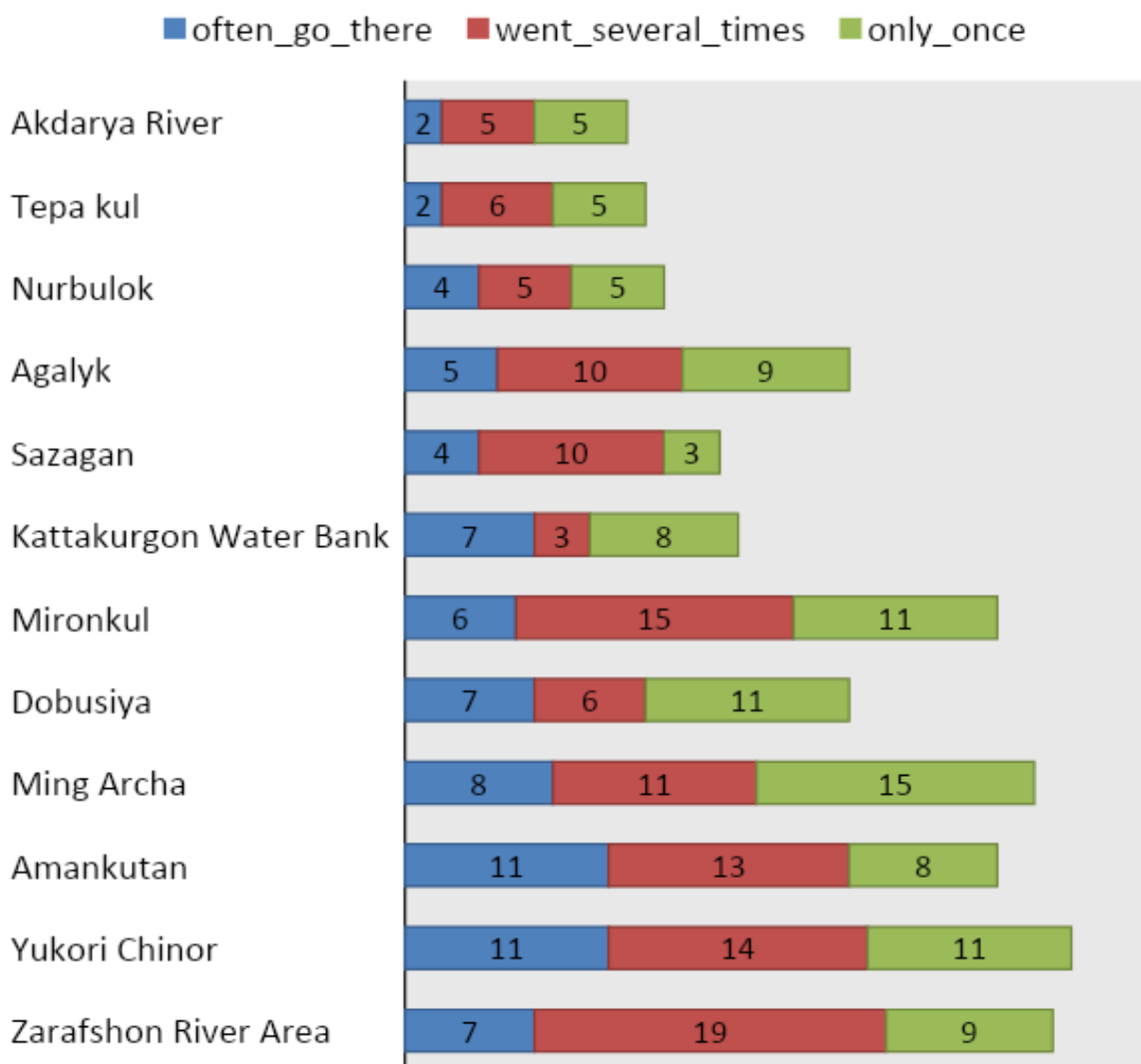


Fig. 2. Popularity of activities of the local people of Samarkand Region

By of compiling this extensive and interactive online social survey, online maps were created. The maps show the preferred vacation spots for the population of the Samarkand Region and age groups who prefer each of that vacation spots, for example Amankutan, Agalyk, Mirankul, Tepa-kul, Nurbulok, Dobusiya, Yukori Chinor, Ming Archa, Kattakurgan reservoir or Zarafshan river bank. In the result the Survey 123 Online from ArcGIS, the following were identified (fig. 2).

Diagram on the fig. 2 demonstrates the types of rest preferred by the people of Samarkand Region in the lap of nature (active, wellness, extreme, child-family, passive relaxation).

Diagram 3 demonstrates the level of popularity of nature based rest places of Samarkand region, such as Zarafshan, Mirankul, Tepa-kul, Agalyk, Nurbulok, Amankutan, Dobusiya, Yukori Chinor, Ming Archa, Kattakurgan reservoir, Zaravshan river bank etc. among all age groups of local population (fig. 3).



*Fig. 3. Popularity of these rest places among the local people of Samarkand Region*

## Differences by age groups

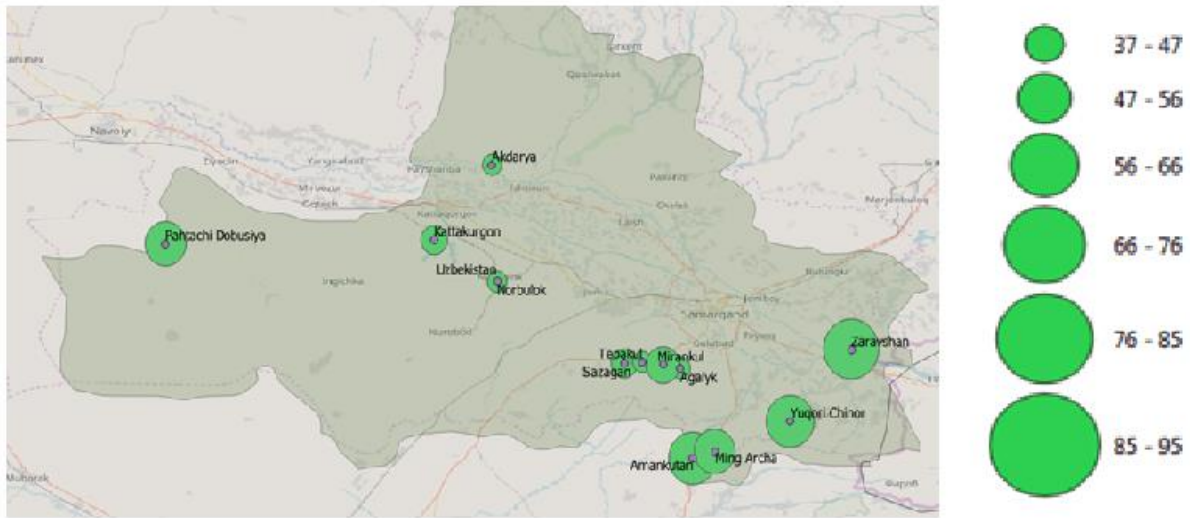


Fig. 4. The map of Samarkand Region, Uzbekistan. Samarkand Region most popular nature-based rest places indicated by different radius dots, according to age groups

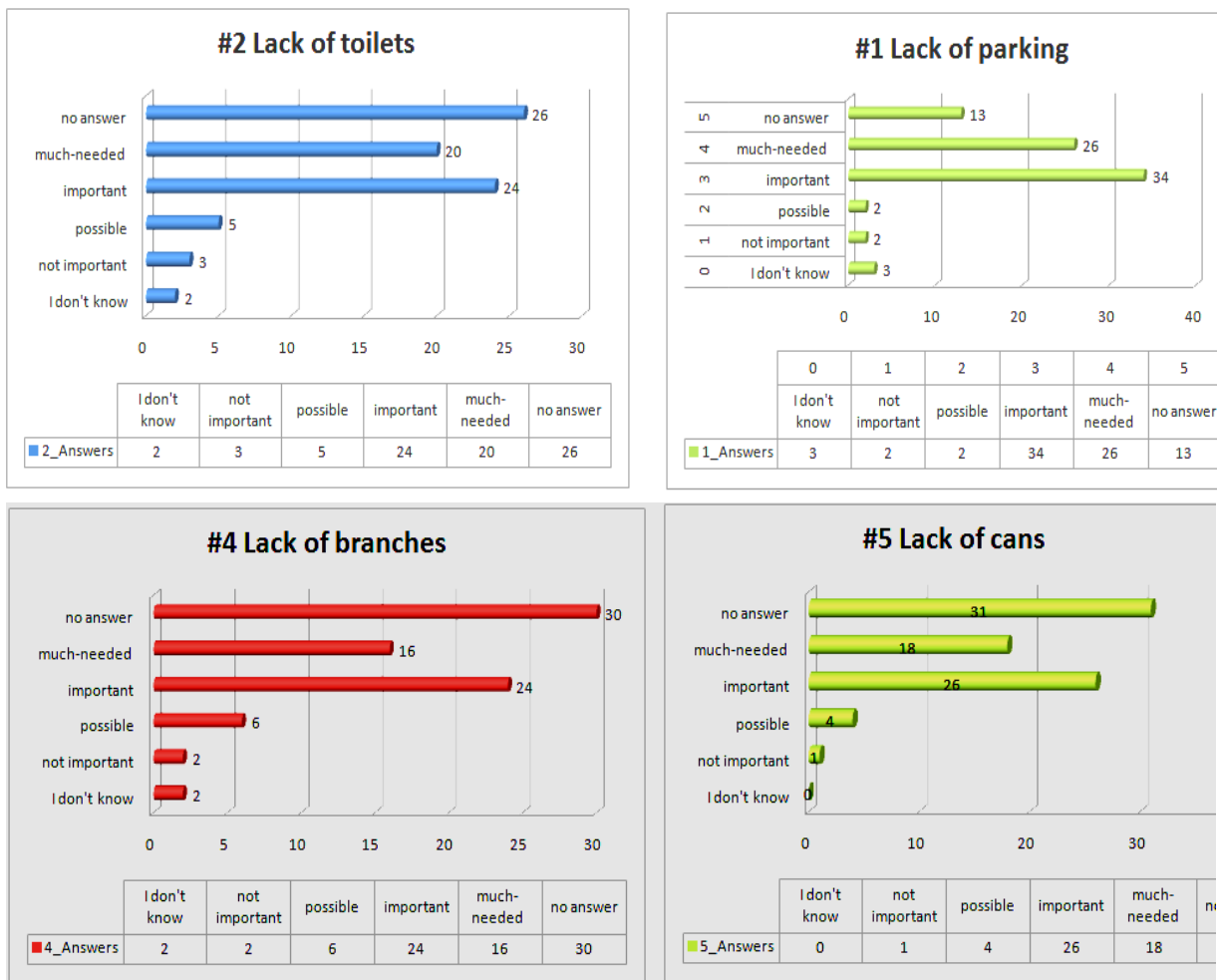


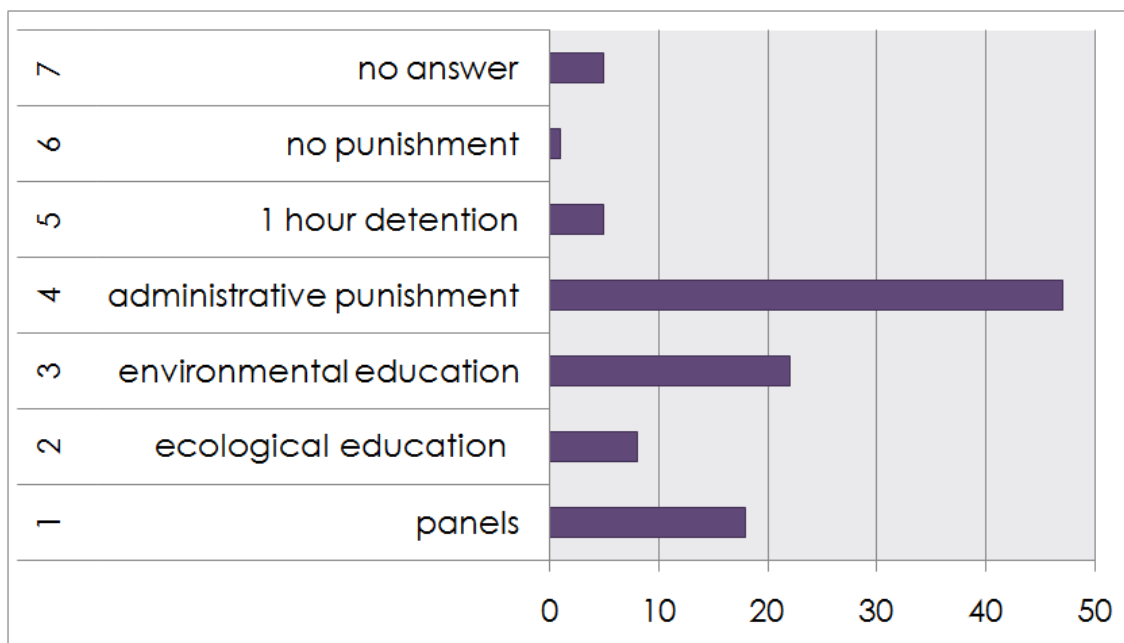
Fig. 5. Visitor's and host's opinions about the deficiency in the nature-based rest places of Samarkand Region

During the social questionnaire, the respondent asked the question: What do your favorite natural recreation area in the Samarkand Region lack most of all? Different versions of answers were suggested to choose from. The fig. 5 shows the most popular answers.

Besides, the author posted open-ended questions in which the respondents were asked to freely express their opinion on “What should be done to improve your favorite natural based area; to create environmental friendly rest zone for nature lovers?” and give practical, relevant advice. The following opinions became the most popular tips for improving natural recreation areas. The most popular recommendations were:

- a) add other modes of transport to a destination (electric train, tram, bus);
- b) improve the quality of roads to this natural area;
- c) ensure protection against natural disasters;
- d) decrease prices and improve the quality of service;
- e) install bio toilets in this recreation area;
- f) ensure environmental cleanliness and conservation of nature.

Diagram on the fig. 6 presents the opinion of the local population about the possible facts of environmental pollution in the above recreation areas. It was proposed to reveal the local people’s opinion on punishment for vandalism and clogging of natural places of rest and damage to nature.



*Fig. 6. Type of environment pollution punishment*

## **MATERIALS AND METHODS OF RESEARCHES**

To fully cover all groups of the local population, the authors decided to create a questionnaire in 2 languages and distribute it to all messengers, social networks, applications... And for representatives of the older generation, the questionnaire was printed out and filled out manually by interviewers (Russian version: <https://arcg.is/1yffma>, Uzbek version: <https://arcg.is/10DrK9>).

For subsequent work, as part of a scientific study, which is a phased complex system of processing statistical data, it was performed in following programs: Acces, Exell, SPSS.

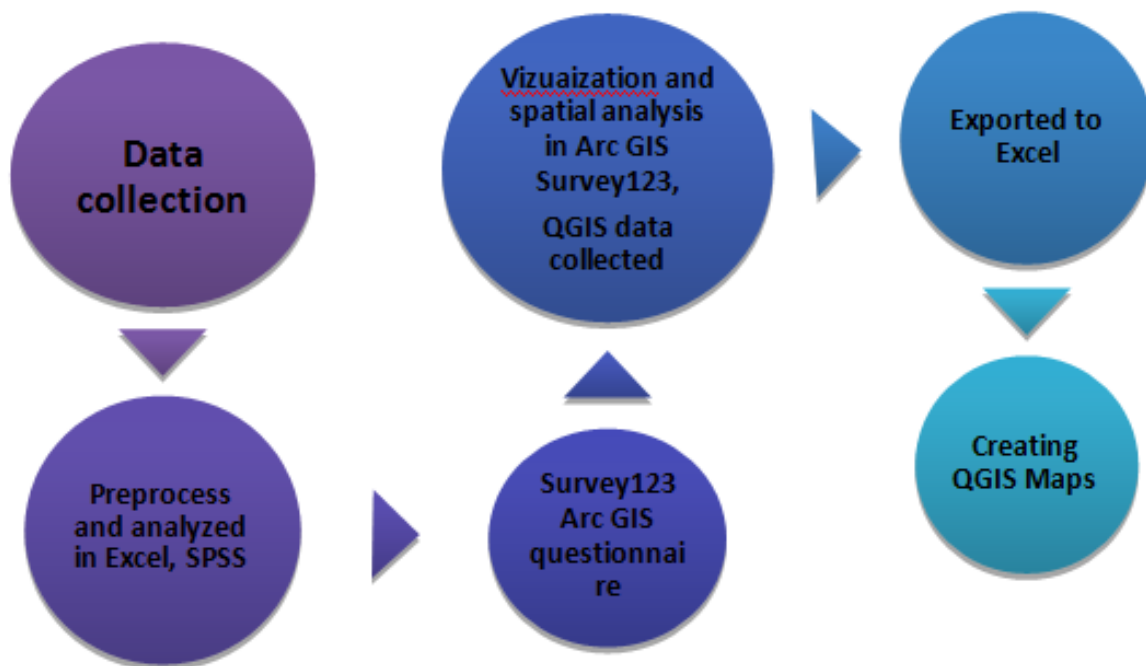
The authors set the goal to clearly depict the data obtained from the social questionnaire on the map; Sadikova S.N. needed the skill to work with maps, with special programs that process

statistical data. To acquire the ability to work with spatial data, the author studied following programs:

- Basics of the ArcGIS. It is a family of geographic information software products of the American company ESRI, which are widely used in land cadastres, in land management tasks, real estate accounting, engineering communications systems, geodesy and subsoil use, urban planning. Using the ArcGIS program, online maps were compiled by authors showing the preferred vacation spots for the population of the Samarkand region.
- Basics of the Quantum GIS for the ability to map and acquire the skill of working with maps, layers and shapefiles; for creating, editing, visualizing, analyzing and publishing geo-spatial information.

The step-by-step processing of statistical data required basic knowledge, the basics of SPSS Statistics. This is a special computer program for processing statistical data (it is mainly used by statisticians and economists). Indeed, during the processing of the questionnaire results, the calculation system “Statistical Package for Social Sciences” significantly accelerated the process of calculating and processing the data obtained and increased the effectiveness of the study (fig. 2).

In order to obtain enough reliable data, recommendations on (online) questionnaire design were taken into account. For the effectiveness of the questionnaire, the amount of time spent on its passage was regulated (10 min); questions that could be interpreted ambiguously were excluded from the questionnaire. In addition, in order to ensure the effectiveness of the questionnaire, its key aspects were raised by several questions at once. The questionnaire consisted of 24 questions.



*Fig. 7. An overview on the workflow and the related working steps*

The questionnaire was put in operation in summer 2019. The URL under which the questionnaire is available was spread using email, social media (e.g. Facebook, Telegram, WhatsApp, Instagram, via e-mail) and personal contacts. Before analysis the submitted responses were validated and preprocessed. This includes statistics of closed question answers and the coding of open-



ended question answers (i.e. assigning one or more codes to responses: e.g. regarding gender of respondents, preferred holiday season, shortcomings, tips for improving the revenue of a nature based places of Samarkand Region etc.). Further, data from answers given to different questions were combined to be used together to be presented and discussed.

<b>The Uzbek version</b>	<b>Russian version</b>
9 open questions	10 open questions
12 closed questions	12 closed questions
3 questions with concretization of location on the map)	3 questions with concretization of location on the map)
Filling time: 10–12min	Filling time: 10–12min
<b>Uzbek version:</b> <a href="https://arcg.is/10DrK9">https://arcg.is/10DrK9</a>	<b>Russian version:</b> <a href="https://arcg.is/1yffma">https://arcg.is/1yffma</a>
	

*Fig. 8. Overview of all questions*

*Table 2 links to the questionnaire in Russian and Uzbek, the QR code of the questionnaire, as well as the number of open and closed questions in it.*

*Table 2. Questionnaire overview*

<b>Item</b>	<b>Question</b>	<b>Type of question</b>
1.	Where do you live?	Open ended question
2.	City zip code	Open ended question
3.	Gender	Close ended question
4.	Age	Close ended question
5.	Education	Close ended question
6.	How often do you go to recreation in nature?	Close ended question
7.	In what season do you prefer to have a rest in countryside?	Close ended question

8.	What kind of recreation activity do you prefer	Close ended question
9.	Other, write please	Open ended question
10.	What type of active sports do you often practice?	Close ended question
11.	Other, write please	Open ended question
12.	Who would you prefer to spend time in nature with?	Close ended question
13.	What is the most important for you in making a choice of countryside rest place?	Close ended question
14.	Other, write please	Open ended question
15.	What places of country rest of the Samarkand Region did you ever visit?	Close ended question
16.	How can you characterize these places?	Close ended question
17.	Mark on the map the most popular rest places of Samarkand region you often visit	Open ended question
18.	Write down the places you've marked	Clarification
19.	Please give your characterizations of these places	Close ended question
20.	Other idea? write please	Open ended question
21.	Lack of what is sharply felt in Samarkand Region countryside rest places?	Close ended question
22.	What would you change in your favorite Samarkand Region countryside rest place to improve it?	Open ended question
23.	What countryside rest place of Samarkand Region mostly damaged by human activity (causing interruption & damage to the nature)	Open ended question
24.	How do you think what types of punishment it is necessary to enter for pollution and causing damage to the nature	Close ended question
25.	Other idea? write please	Open ended question
26.	What should be undertaken in your favorite country rest place of Uzbekistan that to improve it for visitors	Close ended question

## RESULTS OF RESEARCHES AND THEIR DISCUSSION

The main goal of the study was to attract the attention of the public and government bodies, the Committee on Ecology of the Republic of Uzbekistan to solve environmental problems that exist in natural recreation areas of the Samarkand region. Ordinary citizens were given the opportunity to express their point of view, give recommendations on improving the ecological climate of natural places to prevent vandalism in the lap of nature. The authors consider environmental education at the state level relevant, so that the local population from a small age would feel responsible to future generations for the ecology that we will leave to them.

It is noteworthy that the question: "What is important for you when choosing a place for a country vacation?" respondents answered:

1. "Picturesque landscape" and "Guaranteed safety on vacation" — 58.82 %;

2. “A place for passive rest and relaxation” — 47.06 % and in the last place by the popularity of the answer was the answer: “Extreme sport in the bosom of nature”. This indicates a strong relationship between the Uzbek people and nature, their love for flora and fauna, for a quiet contemplation of nature, and not for extreme and extreme forms of recreation.

During the collection of data from the social questionnaire, there were several problems that influenced the calculation process and the objectivity of the results negatively. Many interviewees answered: “I don’t know,” “I don’t know this place of rest”. In statistical programs of this kind, gaps should have been characterized by “0”. Negative factors can also include non-uniformity of responses from all age groups. The most active and popular in the social questionnaire was the age group 26–40 years old, and a group 61–80 is the smallest. Which could not but reflect negatively on the results.

The main goal of the study was to involve the responsible state bodies, the Ecology Committee of Republic of Uzbekistan in establishing a code of conduct for people in free natural recreation areas, reserves and in the wilderness; legislative measures to punish animal cruelty and vandalism in natural places of rest. The attention of local people was drawn to solving environmental problems that exist in the natural places of recreation of the Samarkand region. The use of infrastructure in visitor management is considered a promising measure, since infrastructure fulfills different functions in terms of visitor use and nature protection [Zelenka, Kaceti, 2013; Sadikova, 2020]. Man-made infrastructure such as car parks, trails and signposting enable recreational visits, and it is necessary to supply such infrastructure.

## CONCLUSIONS

Thus, summarizing the results of the study, we can conclude that the following recommendations can be effective measures for further sustainable development and improvement of nature-based 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, creation of chor-bag gardens 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)<sup>1</sup> [Sadikova, 2019] And the safety of nature itself and its biodiversity from vandalism of visitors.

III. Mass training of the country’s population in the field of Environmental education, giving a set of rules on how to relax in the lap of nature, how to behave in emergency situations and what absolutely cannot be done “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 fauna is protected. Organization of: a) installation of 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 environmentally sensitive areas 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.

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<sup>1</sup> Sadikova S.N. Scientific recommendations for the revival of Chor-bag gardens. Young Scientist, 2013. No 3. P. 91–98. Web resource: <https://moluch.ru/archive/50/6077/> (accessed 07.06.2018)

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