Article

Satisfaction with Sustainable Tourism—A Case of the Special Nature Reserve “Meadows of Great Bustard”, Vojvodina Province

Igor Trišić 1,*, Sara Stanić Jovanović 2, Snežana Štetić 3,4, Florin Nechita 5 and Adina Nicoleta Candrea 6

1 Faculty of Geography, University of Belgrade, Studentski Trg 3/III, 11000 Belgrade, Serbia
2 Academy of Vocational Studies Šumadija, 34000 Kragujevac, Serbia; sara.stanic.zemun@gmail.com
3 Academy of Applied Studies Belgrade, The College of Tourism Belgrade, Bulevar Zorana Dindica 152a, 11070 Belgrade, Serbia; snezana.stetic@gmail.com
4 Balkan Network of Tourism Experts, 11000 Belgrade, Serbia
5 Department of Social and Communication Sciences, Transilvania University of Brașov, 29, Eroilor Bd., 500036 Brașov, Romania; florin.nechita@unitbv.ro
6 Faculty of Economic Sciences and Business Administration, Transilvania University of Brașov, 500036 Brașov, Romania; adina.candrea@unitbv.ro
* Correspondence: trisici@hotmail.com; Tel.: +381-64-143-13-75

Abstract: The Special Nature Reserve, a part of the nature “Meadows of Great Bustard” (MGB), is a protected area with an extremely rare and sensitive ecosystem. The MGB spreads in the northeast of Vojvodina in Serbia. The natural potentials of MGB, in addition to diverse flora and fauna, are symbolized by a jeopardized species of bird called the Great Bustard (Otis tarda). Only a few specimens of this species live in this protected area, and they need to be protected. Globally, the Great Bustard is a vulnerable species (VU) and a seriously protected species in Serbia. The goal of the research in this paper is to determine whether sustainable tourism affects the satisfaction of residents, using a quantitative method through the Prism of Sustainability (PoS) research model, which includes the technique of surveying respondents (residents). In this part of Vojvodina lives a population that has specific social characteristics. The cultural legacy, customs of this part of Banat, way of treating nature, local crafts, and local events stand out among those characteristics. The favorable geographical position of MGB, the proximity of Romania and Hungary, and good traffic connections with numerous cities in Serbia and the region represent significant potential for tourism development. The natural motives of MGB and ecological interests should be a priority in planning and developing tourism. A nature-based tourism destination can be formed by combining natural and social motives. The main forms of tourism, important for the development of this area, are ecotourism, scientific research tourism, and birdwatching tourism in the MGB. The significant results of the research are those that point out that the respondents rated ecological and socio-cultural sustainability as the most important. Also, these two dimensions have the greatest impact on sustainable tourism in the MGB. After the conducted research, it can be concluded that the residents are satisfied with sustainable tourism, i.e., sustainable tourism significantly affects the satisfaction of residents.

Keywords: sustainable tourism; PoS model; protected area; nature-based tourism; ecotourism; residents’ satisfaction

1. Introduction

The goal of researching the development of sustainable tourism in protected areas, which are trying to be tourist destinations, is to gain ecological, socio-cultural, and economic benefits for residents, visitors, and stakeholders. This means that residents, visitors, managers, and state services should be directly involved in the planning and
implementation as important bearers of tourism development planning. Tourist activities in protected areas should be directed towards the improvement of ecological principles, socio-cultural attitudes, the realization of economic profit, and the strengthening of institutions. There is no doubt that protected areas contribute to the preservation of biological diversity and ecosystems, as well as the habitats of various plant and animal species. In this way, they enable scientific research, and different types of education with the aim of adequate use of these areas for the purpose of sustainable tourism [1,2]. In these areas, tourism significantly contributes to the preservation of natural and anthropogenic resources, the ethnic heritage of the local population, and the improvement of their economic situation [3–5]. Protected areas in the world contain rare ecosystems, habitats, and species that attract tourists [6–8]. The possibility of observing the natural environment, flora and fauna is a special attraction [9]. Numerous tourism development strategies in Serbia include exactly those destinations with sensitive ecosystems. One of the purposes of tourism development is the promotion of the ecological values of tourist destinations. It is also significant from the aspect of sustainable tourism [10,11].

There is an extremely rare ecosystem in the Special Nature Reserve “Meadows of Great Bustard” (MGB). This ecosystem consists of the plain, steppe, salt marsh, and marsh habitats. The symbol of this reserve is the endangered flock of Great Bustards (Otis tarda) in Serbia [12]. It is a globally vulnerable (VU) [13,14] and a highly endangered species in Serbia [12,15]. In the local community, there is not enough power to protect this area. Therefore, it is necessary to plan a more significant role that residents would get through personal control and sustainable development of tourism in MGB, with the possibility of creating tourism development strategies.

The research objective of this paper is to determine whether sustainable tourism of the MGB affects residents’ satisfaction. Also, the goal is to assess the level of development of sustainable tourism by studying the basic elements of sustainability.

During this research, the PoS model was used, bearing in mind that it corresponds to the examination of sustainable tourism in MGB. A total of 1050 residents were surveyed by means of a written questionnaire as an instrument. The survey was conducted using a random sample method. The data obtained from the research were processed with the help of SPSS v.21 software (IBM, Armonk, NY, USA).

The subject of research in this paper is to study the current state of sustainable tourism and the level of influence it has on residents living in the vicinity of MGB. In addition, it is important to examine the role of the local population in tourism planning and development [16]. During the development of MGB tourism, the residents’ role should be exceptionally important [17].

Sustainable tourism of the MGB can contribute to the overall development of this part of Serbia. The proper development of tourism can directly affect the quality of life of the inhabitants, their employment, the presentation of gastronomic values and ethnic motifs, as well as the promotion of local culture and local events. Achieving direct interaction between visitors and residents would significantly affect awareness of the importance of connecting people through tourism. Prevention of the risky impacts of tourism on the environment and space can be achieved primarily by proper valorization and implementation of tourism strategies, and the inclusion of local structures in protection systems [18,19]. The protection of the area at the local and international level, the adoption of certain legal legislations that regulate overall tourist activities, ethical codes, zoning of the space, regulating carrying capacity, and improving the space and environment are also essential [20–22].

2. Literature Review

Vital information on the importance of protected areas for tourism offers and sustainable development can be obtained through research on sustainable tourism in protected areas [23,24]. Numerous scientific studies examine the significance of the development of local communities and their connection with the ecology of protected
areas, in order to preserve biodiversity [25,26]. Sustainable tourism generates the roles of all stakeholders in the creation of tourism development. Sustainability takes into account geographical features and different environmental and local conditions [27]. Therefore, the basis for sustainable tourism progress is a constant study of tourism and the identification of the roles of interested parties in planning and controlling tourism evolution [28].

By analyzing the literature on the issues studied in this paper, the research on sustainable tourism is singled out [29], which defines tourism development as a primary activity that must be in accordance with ecological principles and standards. During the development of tourism in preserved areas, numerous goals must be met [30]. In researching these areas, the most important goals are those related to the development of ecology, socio-cultural elements, economic growth, and the inclusion of institutions [31,32].

Sustainable tourism in protected areas is based on a system of plans, measures, and activities [33] which should be included in tourism development [34,35]. The objective of such a development is to satisfy tourists and the local population, gain income from tourism, and use it for the development of special forms of tourism on the territory of the protected areas [36,37].

The development of certain forms of tourism, such as ecotourism, nature conservation, hiking, excursion, educational, sports-recreational, rural tourism, and gastronomy, can significantly influence the promotion of protected areas as tourist destinations [35,38,39]. Providing income should be focused on improving the natural values of these sensitive destinations, which represents a significant pillar of sustainability. At the same time, the ecological aspect is the driving force behind other sustainable dimensions, such as economic, socio-cultural, and institutional.

In the existing literature, in addition to ecotourism, nature-based tourism forms are mentioned as crucial forces of sustainability in protected areas. Some forms of tourism can contribute to the strengthening of various factors that affect the growth of tourism in protected areas [40]. A destination where ecological values are violated is not attractive to visitors [41–44].

In addition to elementary attractive tourist factors, the evolution of tourism in protected areas can be influenced by other factors, such as the protection of the area, the intensity of its use, and its carrying capacity [45]. The role of the local community in tourism development, zoning, socio-cultural influences, the contribution of tourism to the local economy, development control, waste management, and others are also essential [34,36,41,46–50]. Besides, the level of degradation of the specific area caused by mass tourism [51], and the number of inhabitants around the protected area and protection zone are also highlighted. It is known that tourism is an extremely vulnerable activity, so there are many factors that influence its development. First of all, air and water pollution, protection costs, the impact of human activities, social impacts, mass travel, and the creation of new and different types of tourism [41,52,53]. That is why there are many studies on these effects.

Research on residents’ attitudes and perceptions of tourism development may provide valuable information for decision-makers [54], and it is crucial for successful and sustainable tourism development. Several studies revealed that residents’ support and their perceived benefits are preconditions for tourism sustainability [55–58]. The involvement of host communities plays an important role in determining the success of sustainable tourism [59,60]. However, many local residents may be slow to diffuse their knowledge of sustainable tourism development compared with local governments and local opinion leaders [61]. Residents’ perception of sustainable tourism development potential in their particular place is crucial for their attitude and behavior [62]. Jurowski and Gursoy [63] found that residents who receive more benefits favor the development of sustainable tourism at a higher level than those who receive no or few profits. Wang [64] revealed that factors such as: witnessing negative environmental events, formal
environmental education, the media, as well as individual outdoor experiences have positive effects on residents’ attitudes toward sustainable tourism. Zhu et al. [62] suggest that increasing local residents’ benefits, decreasing their costs from tourism, raising their positive perceptions and confidence in tourism, and inspiring their attachment to the community would help to enhance their support for tourism development. Moreover, they might then be more enthusiastic about local policies and affairs of tourism development, and maintaining the sustainability of local resources. If resident perceptions and preferences do not support tourism development policies and programs, programs are likely to fail or be ineffective in implementation, ultimately failing to achieve sustainability [65].

Many authors apply the PoS model for their research. This was also done by Huayhuaca et al. [66], whose research objective was to study the impact of sustainable tourism on the local population in Frankenwald Nature Park in central Germany. As part of that research, the respondents stated four dimensions of sustainability: ecological, economic, socio-cultural, and institutional. In addition, the impact of sustainability dimensions on residents’ satisfaction was studied. The research results have singled out ecological and socio-cultural sustainability. Furthermore, sustainable tourism has had an impact on residents’ satisfaction with sustainable tourism, which stands out as a significant result of the research.

Similar research was done by Cottrell et al. [67], surveying visitors in two protected areas in Germany. The methodology of this research was mainly based on the PoS model on the examination of ecological, economic, socio-cultural, and institutional sustainability to the satisfaction of the local population. Research results indicated the importance of ecological and socio-cultural dimensions of sustainability to the respondents. They identified four dimensions of sustainability as significant factors for tourism development.

The research of Asmelash and Kumar [68] is based on the study of the functions that protected areas could have in sustainable tourism development. They conducted research by measuring four dimensions of sustainability in the regional state of Tigray, which is one of the nine regional states of Ethiopia. In the research results, the economic, socio-cultural, and institutional sustainability indicators stand out as significant, while the most important dimension is ecological. This can be related to the state of ecological factors within the observed protected area.

The impact of sustainable tourism on residents’ satisfaction was investigated by Tršić et al. [69], through the individual impacts of each of the four dimensions of sustainability on the sustainable development of tourism within two protected areas in Serbia and Croatia. The PoS model was also used during this research. The research results singled out the ecological and socio-cultural dimensions of sustainability as the most significant for sustainable tourism. The importance of including residents in the processes of management, organization, and control systems is part of the obtained results. In addition, the conclusions of this research confirmed that the importance of local culture, tradition, customs, cultural-historical heritage and crafts is important, in addition to natural values. The primary forms of tourism are nature-based tourism and ecotourism.

A very important part of tourism evolution planning, especially in protected areas, is the carrying capacity of the spatial location. Apart from positive effects, tourism can also have a very negative impact on the overall development of a location, which occurs in the case of its massive and uncontrolled development. This is exactly the kind of tourism growth that must not take place in very sensitive and conserved areas. It is extremely important that those who manage protected assets take into account all levels of assessment of carrying capacities: ecological, psychological, socio-cultural, and economic capacities. When planning and implementing tourism, one must understand and accept the limitations of the carrying capacity through these four levels, and in that way, direct the proper growth of tourism to the satisfaction of the local population and visitors. It is a very important compromise between the desire for a large number of tourists and the possibility of accepting them in protected areas such as the MGB. Because of the
importance of the carrying capacities of development in protected natural resources, the authors of this paper have carried out special research on this issue, which will be explored in a new paper.

According to the sustainability implementation model proposed by Haid et al. [70], communication between destination stakeholders is crucial for the successful implementation of sustainability initiatives. It has to be taken into account that promoting sustainability, carrying capacity, and advocating for sustainability to local businesses are key factors. Destination management organizations play a vital role in communicating sustainable efforts, advocacy for sustainability internally and externally, and the importance of tourism initiatives to the locals. The authors also stressed that involving various stakeholders and fostering cooperation through communication are essential drivers for the process, as communication becomes a primary driving force by replacing discretion. Communication is a key element not only for external communication of the national parks and protected areas with residents and other stakeholders. Smith et al.’s [71] study set in a South African context revealed the importance of effective communication for park managers during the COVID-19 period, leading to positive outcomes, such as increased use of online communication technology, time and cost savings, and the need for empowering staff through ongoing open communication. Ramkissoon [72] concludes that a harmonious relationship among residents, places, government, businesses, and tourists promotes social, environmental, and economic sustainability in sustainable tourism development. Communication with residents is key to understanding their perceived social impacts of tourism and developing appropriate management strategies to support tourism development. As this protected area has a very rare ecosystem and endangered representatives of flora and fauna, special attention must be paid to the carrying capacity when planning tourism. The assessment of the carrying capacity for the MGB should be the result of the impact of tourism on the environment and should represent an important component of planning the development of tourism activities in this protected area. It can be one of the mechanisms for setting sustainable tourism standards. So far, several attempts have been made in order to reliably define the bearing capacity that would refer to the MGB. This especially applies to all types of tourist activities, including the development of tourism of special interests, among which are scientific research and ecotourism. Bearing in mind that the majority of negative environmental and other problems are caused by a large concentration of visitors, tourist capacities and contents, many authors deal with defining the carrying capacity and the necessity of determining the maximum number of tourists who can stay in a certain spatial area at the same time. Data research concludes that the carrying capacity represents the maximum number of people that can be located in a certain locality, without irreversible changes and degradation of the physical environment, and without significantly compromising the quality of the recreational experience [73]. Many studies have been carried out around the world, and especially in the USA, with the aim of specifying the procedures for calculating the carrying capacity and creating specific formulas, which would be valid for a certain type of tourist destination, such as protected areas. Despite this, there is still no reliable and scientifically proven method for calculating bearing capacity accepted throughout the world. Most authors or organizations studying this problem use different standards obtained from their own research and experience. Each perception during the research is very different, so this also affects the specificity of the applied standards. Using different parameters, a carrying capacity of 40 people per kilometer of the educational trail can be recommended in this nature reserve. With such a small number of visitors, the natural activities of the Great Bustard will not be disturbed.

3. Study Areas

The MGB covers an area of 6779.77 ha. It consists of three separate geographical locations: Jaroš (4256.90 ha), Kočovat, on the very Serbian-Romanian border (402.04 ha), and Siget (2140.83 ha). The reserve stretches between 45°52′48″ and 45°55′15″ of northern
latitude and from 20°16’09” to 20°19’52” of east longitude. The favorable geographical position is reflected in the vicinity of major cities in the country and region. The proximity of Hungary, Romania, Croatia, Bulgaria, and Bosnia and Herzegovina is significant for tourism development. Also, the MGB has good traffic connections with other parts of Europe [15,74].

The MGB is a part of the Pannonian Plain. It belongs to the fourth category of The International Union for Conservation of Nature (IUCN) classification (Habitat and Species Management Area). This reserve represents a natural asset of the first category of exceptional importance [75,76]. The MGB has been nominated for inclusion in the Ramsar list of wetlands [12].

Since 1997, when this area was declared a special nature reserve, MGB has been a refuge for the only remaining flock of Great Bustards in the Republic of Serbia. During the last count, it was recorded that their number decreased from 37 to approximately ten individuals. The last count was made in 2020, but there are no officially published results. Information about the number of individuals was obtained in a conversation with residents who are aware of the importance of preserving these individuals. It was this concern of the local population that influenced our increased interest in this area and its study. Some media reported that the remaining specimens were exclusively female, but fortunately, they were not correct. The hunting society “Perjanica” from Mokrin, which manages this reserve, cited anthropogenic influences as the cause of the decline [15].

Understandably, the only acceptable forms of tourism in this protected area are scientific research, bird-watching, and ecotourism related to rare ecosystems. The current tourism development indicates that bird-watching and elementary forms of scientific research activities have so far been realized in the MGB, more than the tourist activities themselves. Ecotourism was especially highlighted as a potential form of tourism in the development plan. Until now, the largest number of visitors were representatives of various educational institutions. They had different visit programs, the most important being education, school in nature, study field teaching of students, etc. The participants of such visits subsequently became active promoters of ecosystem protection and Great Bustard in this reserve.

The environmental principles established by the legislators are very explicit. All economic and anthropogenic activities that have an impact on the environment are strictly prohibited in this protected area. In addition, the construction of buildings is prohibited in the reserve, except for the visitor center and the bird observatory. Visits to the reserve are controlled and are carried out with a professional guide. During the period of mating of the birds, and the strutting and courting of the males, scientific and research visits are a special attraction and are strictly controlled. The strutting of the Great Bustard male is a rare natural attraction. Scientific research tourism is precisely the model that promotes the protection of this area and the endangered Great Bustard species. Through this form of tourism, which is supported by the management, the environmental awareness of the residents is influenced. Therefore, numerous local actions have been established, which have the task of promoting the endangerment of the ecosystem and preventing various negative impacts by visiting this area. Certain environmental measures refer to the limitation of agricultural activities around the protected area and the use of mechanization in agriculture. In addition, one of the measures is to control the number of animals that have a destructive effect on the Great Bustard and destroy their nests (fox, European pine marten, and wild boar). Recently, local events have been established with the aim of promoting protection in the MGB and providing financial resources through various funds.

The IUCN Red List of Threatened Species assesses the global population of the Great Bustard as vulnerable (VU), with a trend of decreasing numbers, according to the degree of risk of extinction [77].

In the area of MGB, there are numerous plant and animal communities [78], a large number of which are rare and endangered species (Aquila heliaca, Ophiogomphus cecilia,
Pelobates fuscus, Burchinus oedicnemus, Asio flammeus, and Spermophilus citellus), among which there are over a hundred species of birds.

The location of the MGB can be seen in Figure 1.

4. Methods

The authors chose this MGB for the purposes of their research in the protected areas of Vojvodina because it can represent a rather specific destination for the development of nature-based tourism forms. The author’s research on this topic has been ongoing in various protected areas of Serbia, and now continues. The successive research is planned to examine the state of sustainable tourism and its impact on residents in as many protected areas of Vojvodina as possible. More reliable data can be obtained in this way, which can help to constitute the function that protected areas have in sustainable tourism, i.e., in creating a tourist offer.

As it was pointed out, for examining the state of sustainable tourism, the PoS model was used in this paper. A customized research model was designed to analyze the condition of sustainable tourism using its four dimensions of sustainability. It should be emphasized that the fourth dimension—institutional was first constituted in the research on the social implications of tourism, and was created by Buttler [79]. The PoS research model in examining sustainable tourism in protected areas was first conceived by Spangenberg and Valentin, in order to research residents’ satisfaction with sustainable tourism [80,81].

In this study, the research model was designed according to the research models of Cottrell et al. [67], Cottrell and Raadik [82], Hussain et al. [83], and Khan et al. [84], and it was adapted to study the state of sustainable tourism and the impact on the satisfaction of MGB residents. The conceptual model can be seen in Figure 2.
In this research, we used a quantitative methodology. It involved surveying residents as a research technique in collecting data from a group of respondents. They were selected using a random sample method. The respondents were surveyed by applying written and online questionnaires. Written questionnaires were used in person visiting the settlements where the respondents live. Filling in the online questionnaires was done with the help of social networks and thematic groups in which the residents are members. The validity of filling in the questionnaire was ensured by a detailed explanation of how the questionnaire should be responded to. All the questionnaires were filled in entirely anonymously. By filling in a questionnaire, the respondents gave their consent that the research results could be used for scientific purposes. The questionnaire consisted of three parts. The first part concerns data on the socio-demographic characteristics of the respondents, i.e., gender, age structure, and level of education. The second part of the questionnaire contained 17 statements grouped into four dimensions: ecological, economic, socio-cultural, and institutional [69,85,86]. The statements in the questionnaire were taken from the questionnaire, which is an integral part of the research model in examining the impact of sustainable tourism on residents [67,82–84]. In addition, the statements were developed in order to present the current state and level of tourism development, and were adapted to the survey of residents. The defined claims were adjusted to measure the value of sustainability dimensions (institutional, ecological, economic, and socio-cultural dimensions). The individual values of each claim contribute to the total values of the dimensions, while the value of each dimension has a certain impact on sustainable tourism. In what way certain tourist activities can influence some objectives and dimensions of sustainability will be the subject of future research by the author. Since the ecological principles of protection are primary in MGB, the authors will focus their future research on questions related to examining the impact of ecological principles (conservation, biodiversity preserves, etc.) on anthropogenic activities, which include tourism.

The third part consisted of four separate claims related to respondents’ satisfaction with sustainable tourism.

Residents ranked the answers on a five-point Likert scale (1—absolute disagreement, 5—absolute agreement, while grade 3 represents a neutral attitude) [83,87–93]. The poll was conducted from August 2022 to May 2023. The collected data were analyzed and presented using the Statistical Package for the Social Science (SPSS.21) software.
Cronbach’s Alpha analysis was applied to test and measure the reliability of the variables [88]. Regression analysis was implemented in order to examine the impact of sustainable tourism on residents’ satisfaction [67,82].

Applying the PoS model in examining sustainable tourism in the MGB can provide significant data that indicate the state and degree of sustainable tourism [69]. In addition, it can denote significant natural and social potentials that should be used in sustainable tourism planning. As ecological principles are primary in MGB tourism, this research can point to the opportunity of developing potential forms of ecotourism. Only these forms can improve the ecological, economic, socio-cultural, and institutional values of the MGB, which can be considered a fundamental prerequisite for sustainable tourism [86,94].

The survey of residents was conducted in the settlements that were directly connected with the MGB. Those settlements were Mokrin, Banatsko Aranđelovo, Novi Kneževac, Banatski Monostor, Crna Bara, Jazovo, Padej, Iđoš, and Kikinda. Some residents possess their agricultural lands in the surroundings of the reserve and adapt their agricultural crops and crop sowing to the MGB protection regime. Some of the residents are members of the hunting society “Perjanica” from Mokrin, which manages this reserve. The vast majority of residents voluntarily participate in protecting this nature reserve by promoting ecological principles, the threat to the Great Bustard, and ecotourism in the MGB.

5. Results

During this research, 1050 residents were surveyed. All completed questionnaires were valid for statistical analysis. The control of questionnaire validity was carried out for each questionnaire and was an integral part of the data collection phase. Regarding the gender of the respondents, 52% were female. Their average age was 42 (from 18 to 84). The respondent’s level of education is such that 76% completed secondary education, 8% had primary education, and a total of 16% finished college or higher education.

The software Statistical Package for the Social Science (SPSS 21) was used during the analysis of the received responses. Cronbach’s Alpha coefficient was applied to test the reliability of the variables, which helped to analyze the four dimensions of sustainability and the impact of sustainable tourism on residents’ satisfaction. Single testing of each dimension was used to review the value of sustainability, which provides insight into individual average values as a result [66,67,69]. The obtained values of individual dimensions of sustainability can be seen in Table 1.

| Table 1. Dimensions of sustainable tourism (n = 1050). |
|-----------------|-----------------|-----------------|
| Dimensions of Sustainable Tourism | α | Mean | S.D. |
| Institutional dimension | 0.724 | 3.11 | 0.66 |
| Visitors are guided through the protected area by trained guides and representatives of the local community | 4.11 | 0.66 |
| Visitors in the protected area can see the local brands (wineries, ethno houses, handicrafts, local enterprises, etc.) | 2.02 | 1.03 |
| In the protected area, the manager’s instructions on nature protection and visitors’ activities are followed | 4.09 | 0.72 |
| Visitors are provided with information that reflects the history of the reserve, population, and settlements | 2.21 | 1.11 |
| Ecological dimension | 0.711 | 4.28 | 0.65 |
| There is the role of residents in protecting the area | 4.41 | 0.65 |
| There are facilities, services, and activities available to residents in the protected area | 4.11 | 0.69 |
There are tourist facilities without impacts on the environment  4.31 0.63
Economical dimension  0.802 2.54
Tourism in the protected area creates benefits for residents  2.19 1.17
Tourism in the protected area boosts the local economy  2.02 1.29
Tourism in the protected area contributes to the employment of residents  2.40 1.08
Local products are available to visitors  3.54 0.87
Visitors support the prices of local products, tickets, etc.  2.55 1.14
Socio-cultural dimension  0.701 4.03
Visitors are interested in home products and crafts  3.45 0.91
Visitors gladly and often get in touch with the residents  4.15 0.65
Visitors are interested in local traditions and customs  4.39 0.59
Visitors visit local cultural facilities and events  4.13 0.65
Visitors are interested in historical sites  4.05 0.78

Items measured on a 5-point Likert agreement scale
\( \alpha \)—Cronbach Alpha Reliability

The average values of all items in the four dimensions of sustainability can be seen in Figure 3.

Figure 3. Graph of average values of all items.

The mean value of the influence of sustainable tourism on residents’ satisfaction can be seen in Table 2.

Table 2. Scale items for the satisfaction index (n = 1050).

<table>
<thead>
<tr>
<th>Index</th>
<th>MGB (n = 1050)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied because tourism in the protected area brings various benefits for me and my family</td>
<td>3.00</td>
</tr>
<tr>
<td>I am satisfied because tourism helps to increase the attractiveness of this protected area</td>
<td>4.22</td>
</tr>
</tbody>
</table>
For me, it is important that there is sustainable tourism in this protected area  4.02
I am satisfied with the state of tourism in this protected area  3.05

Regression analysis can indicate the influence of sustainable tourism on residents’ satisfaction [16,66,82]. The assumption includes the results of the four dimensions of sustainability and satisfaction with sustainable tourism, taking into account that 30.2% of the variances were explained R² = 0.302 (Table 3).

Table 3. Satisfaction with tourism (n = 1050).

<table>
<thead>
<tr>
<th>Satisfaction with Tourism</th>
<th>MGB (n = 1050)</th>
<th>β₁</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional dimension</td>
<td>0.254</td>
<td>0.014</td>
<td></td>
</tr>
<tr>
<td>Ecological dimension</td>
<td>0.372</td>
<td>0.204</td>
<td></td>
</tr>
<tr>
<td>Economic dimension</td>
<td>0.391</td>
<td>0.153</td>
<td></td>
</tr>
<tr>
<td>Socio-cultural dimension</td>
<td>0.511</td>
<td>0.118</td>
<td></td>
</tr>
</tbody>
</table>

1 Standardized β value used R² = 0.302

6. Discussion

When analyzing the average values of dimensions of sustainability (Table 1) and average values of all items (Figure 3), it can be concluded that the ecological and socio-cultural dimensions have the highest average values. The ecological dimension is singled out as the dimension with the most significant effect on sustainable tourism (4.28) and has a relatively high value. The results of the research indicate that these two dimensions were rated relatively higher by the respondents. If we compare with the values that have the other two dimensions, it can be concluded that in MGB, there are more factors that indicate an actual better situation in terms of environmental and socio-cultural activities.

Due to the protection of nature in the MGB, it is required to develop exclusively forms of tourism that develop in nature. This should be a constant task of all legal managers of this protected area. Therefore, it is necessary to intensively invest in proper planning of tourist activities. This includes the development of those forms of tourism, which will not affect the environment and life of the Great Bustard. Also, the application of the carrying capacity concept should be the primary activity in the planning and control of tourist activities in the MGB, as well as the development of forms of tourism such as scientific research, bird-watching, excursion, ecotourism, and educational tourism. So far, it has been shown that these forms of tourism, which are not mass-produced, have a significant impact on the awareness of the population, as well as tourists, about the importance and protection of the MGB. Through the research on this protected area, it is evident that the promotion was carried out by visitors in the media or through social networks. In a direct conversation with residents, the importance of protecting the MGB was seen. In addition, managers and residents emphasize tourist activities as important for the promotion of ecological principles, through which significant financial resources needed for investment in MGB can be secured. The promotion of all-natural values in the MGB through the strengthening of social contacts between visitors and residents has a positive effect on the reduction of various harmful impacts, especially agricultural activities around the protected area. This indicates the conclusion that farmers are becoming more aware of the importance of preserving certain endangered species. The research results so far specify that it is necessary to continue to develop special forms of tourism in the MGB, but with constant monitoring of the results of such development.
The ecological dimension was not outlined so far as the most important dimension in residents' satisfaction with sustainable tourism, so it is not in line with previous studies [16,66]. In addition to the ecological dimension, respondents singled out the importance of the socio-cultural dimension of sustainability (4.03), which coincides with previous results. The result of the analysis of obtained values indicates the importance of the local people's role in destination tourism development. More significant residents' involvement in MGB protection and tourism development is needed. The promotion of local products, culture, customs, and events should be singled out as the most prominent socio-cultural activity. Initiating interaction between residents and visitors should be a basic activity of tourism development because a joint role of residents and visitors in the development of tourism is one of the postulates of sustainability.

The economic dimension (2.54) and the institutional dimension of sustainability (3.11) were singled out as domains with lower average values. This contradicts certain studies [16,66,95], which outlined that resident satisfaction with tourism was mostly related to the institutional dimension. However, the institutional dimension recorded lower values regarding residents' satisfaction in other Serbian destinations, thus confirming the specificity of this country. The result of this measurement as part of the research shows that the economic dimension was rated the lowest by the respondents. This indicates the absence of significant economic benefits, both for the protected area and for the residents themselves. Financial resources are needed for the protection of the MGB and for tourism development. The protection needs to be extended outside the reserve zone, in order to prevent negative impacts of anthropogenic and economic activities on the ecology of the MGB. Significant financial resources are needed for the mentioned activities. Thus, the role of institutions is crucial in planning tourism protection and development. That is why it is necessary to increase residents' role in the institutional system and management processes. Precisely, this impact on increasing the development of specific tourism forms can initiate strengthening the institutional sustainability of the MGB. If these results are compared with the results of earlier research, we can conclude a certain coincidence regarding economic and institutional sustainability. Concluding considerations indicate that only well-designed tourism development can provide both ecological and socio-cultural, as well as economic and institutional benefits.

Testing the reliability of the variables indicates that $\alpha$ has a value of 0.70 and above, which points out the fact that the variables are reliable for analysis. According to Nunnally and Bernstein [96], $\alpha$ of 0.60 and above can be accepted for analysis [67] in all examined dimensions of sustainability.

In the MGB, the research results and measurements of the impact that dimensions of sustainability have on sustainable tourism can provide significant information as regards the creation of tourism development strategies, protection studies, financial plans, and the promotion of natural and cultural values. The primary activity in tourism planning must be in accordance with ecological principles. Strengthening the role of residents in protection systems and management processes is of crucial importance for sustainable tourism. Monitoring tourism development should exist in the interaction between residents and visitors [3,97].

If you analyze the results in Table 2, you can come to the conclusion that there is relative satisfaction with sustainable tourism. Using regression analysis (Table 3), you can determine that each of the sustainability dimensions affects satisfaction, i.e., that sustainable tourism has an impact on residents' satisfaction through ecological, economic, institutional, and socio-cultural sustainability dimensions ($0.254 > \beta > 0.511; p > 0.014$). The main goal of this research was to establish whether sustainable tourism affects residents’ satisfaction with tourism development. Analyzing the results of the survey, it can be concluded that sustainable tourism in MGB significantly affects the satisfaction of residents regarding the state of sustainable tourism. Subsequently, one of the tasks of this research was to examine which dimension of sustainability was segregated as the most evaluated by the respondents. The results of the measurement of the obtained values
highlight precisely the ecological and socio-cultural dimensions, as the dimensions that have the highest values. It specifies that these two dimensions have the highest impact on the state of sustainable tourism. How each of the dimensions affects certain activities within the reserve will be the subject of future research by the author.

If we compare these data with the data of the authors’ earlier research, we can conclude that the results are identical. In earlier studies about the impact of sustainable tourism on the residents’ satisfaction, significant effects were recorded, which indicates that the condition of sustainable tourism in the protected area is extremely important for residents. Examining the dimensions of sustainability in the author’s previous research, it is precisely the ecological and socio-cultural dimensions of sustainability that stand out as the dimensions with the highest values. This may also indicate that in the protection studies and other documents, the planning of the protection of the area was carried out, which is the primary activity of the management. It also indicates that tourism development must be planned, but the question is whether it is always in accordance with ecological standards. As the promotion of the protected area is important, the development of interaction between visitors and residents is crucial. Such interaction can influence the formation of the tourist offer, which aims to protect the area. This is exactly what is common to the author’s previous research and this research. In previous research, the economic and institutional dimensions had the lowest values, which means the lowest impacts on sustainable tourism. A constant problem for managers of protected areas is the provision of financial resources, which also coincides with this research. In the author’s research so far, lower economic impacts on residents have been singled out, which is mostly reflected through employment and through the provision of various economic benefits from the development of tourism.

Implications of tourism development can be the construction of new and the improvement of more significant functioning of old visitor centers. Besides, we must pay attention to innovations in guiding and expert services, and supervision and control of adherence to guidelines and instructions issued by stakeholders. The ecological and socio-cultural dimensions of sustainability were most important for residents in different protected areas. As the studied protected areas have had exceedingly rare natural factors, endangered flora and fauna, specific ecosystems, and relief forms, the respondents singled out the ecological dimension of sustainability as the dimension with the greatest impact on sustainable tourism. The populations living next to the studied areas have significant social characteristics. These characteristics represent important social tourism motives. Together with them, unique tourist offers of sustainable tourism can be created in combination with natural motives. This data indicate that it is very important to develop nature-based and cultural tourism forms more significantly.

If we compare the results of this research with the results of Huayhuaca et al. [66], Cottrell et al. [67], and Asmelash and Kumar [68], a certain correspondence can be noted. In the aforementioned research, the ecological and socio-cultural dimensions were also evaluated as the dimensions with the greatest impact on sustainable tourism. As protected areas with significantly more organized tourism development were chosen for the research area, the residents also stated the existence of somewhat higher economic benefits. This can be directly related to the level of tourism development and tourist attendance. Institutional development in the examined areas is also more significant than in this research. The result of the comparative analysis indicates that the proper development of tourism in protected areas can achieve significant results in terms of ecological, socio-cultural, economic, and institutional principles of tourism development. The primary activities must certainly be the protection of the area and the initiation of the active role of residents in the planning, development, control, and promotion of tourist development. In addition to the above-mentioned similarities in the research, it stands out as the most significant that sustainable tourism affects the satisfaction of the respondents. This information is important from the aspect of the planning and implementation of
environmental measures and standards within the framework of tourism development in protected areas.

7. Conclusions

The results gained in the conducted research indicate that the MGB has significant potential for the development of specific tourism forms that are based on nature. There are entirely different ecosystems inhabited by rare plant and animal species whose survival exclusively depends on anthropogenic activities. National protection statuses have been established in order to prevent anthropogenic influences and protect this area. In addition, international protection regimes (IBA, IPA) have also been created. This should be taken into account when planning tourism development.

Certain types of tourism are developing in MGB. Visits to the reserve are reduced to small groups of observers, with the presence of an expert. Tourist activities do not have significant negative impacts on the environment. There is an educational track in the MGB, but it would be extremely important to strengthen and expand this part of the infrastructure to a larger area than the existing one. At the moment, the greatest pressures on the MGB are realized by agriculture from the surrounding lands. The treatment of plants and soil with different chemical agents is the biggest threat to the MGB. If there is no significant control of the measures that regulate these activities, there is a possibility that the MGB will lose significant value in terms of natural potential. The proper development of nature-based tourism can be of great importance for the MGB. Long-term benefits are ensured, including residents involvement in planning and controlling tourism development. Strengthening the awareness of nature protection among residents is imperative in adopting protection studies and planning measures. Analogously, increasing awareness of the importance of tourism in this area can provide ecological and socio-cultural benefits for residents and the MGB [98]. Providing ecological, economic, socio-cultural, and institutional benefits for the MGB, residents, visitors, and stakeholders is the fundamental task of sustainable tourism [67,99]. Creating material benefits for the protected area is the essential duty of managers and stakeholders [100,101].

The respondents’ answers in this research concern the significance of the ecological and sociological and cultural values of the MGB. According to those replies, the respondents highlighted these two dimensions of sustainability as the most important. This information can represent an important guideline when defining tourism forms based on the essential potentials of the MGB. Proper and controlled tourism development in the MGB can have multiple benefits for all subjects. Scientific research tourism, ecotourism, excursion tourism, bird-watching tourism in the reserve itself, and events and cultural forms of tourism in the settlements around it would contribute to strengthening the education of both visitors and residents [47,102,103]. Among the listed potential forms of tourism, ecotourism would certainly be the most important for the MGB. These tourism forms are directed exclusively towards nature and the improvement of its original values. The basis of ecotourism consists of essential natural elements such as geographical location, climate and favorable climatic conditions, various forms of relief, surface materials and geo-phenomena, water, vegetation, and fauna [104]. Precisely, these are fundamental elements of ecotourism development, the major natural features of the MGB. The primary activities of ecotourists are observing nature and animals with an expert guide, using local accommodation and local products, interacting with residents, participating in education about the importance of protection, promoting and appreciating local culture and traditions, consuming local and national dishes, and respecting the customs and traditions of residents. [105]. The mentioned characteristics of ecotourism can have a significant basis in the tourism of the MGB.

The development of sustainable tourism, ecotourism, and the protection of the MGB area should exist as the most significant potentials. Namely, those are the availability of funds for protection improvement, the existence of national and international protection frameworks, the activities of the local community, the existence of events and the
possibility of promoting ethno-social values, and space zoning. Also vital are the economic and ecological benefits from protection, the elimination of pollutants near the protected area, a significant solution to the problem of wastewater, the use of possibilities for the development of scientific and research tourism, the existence of eco and educational trails, etc.

The promotion of all values of the MGB, significant for the development of tourism, is an important activity in planning tourism development [106]. Without these activities, we cannot provide tourism to consumers. [107]. The results of this research are based on the fact that the promotion of MGB tourism must include natural and social potentials. By combining different products that are essential features of this nature reserve, a unique tourist product [108,109] that would influence the MGB to be an important tourist destination of sustainable tourism can be created.

The research results will serve the authors in their future studies and analyses of sustainable tourism in similar or significantly different protected areas in Vojvodina. In order to reach reliable results in identifying the level of sustainability and significance for tourism development, the authors plan to expand the research area to as many protected areas in Vojvodina as possible. In such a way, the strengths, opportunities, and weaknesses of the tourism development of protected areas can be identified. In addition, the authors plan to compare the obtained data with the research data on sustainable tourism in protected areas of countries worldwide. The comparative analysis conducted in this way can provide important information that can be useful to entities that participate in planning tourism development and the adoption of various acts, measures, and regulations that modify anthropogenic activities within protected areas.


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