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# Tara National Park – Resources, Management and Tourist Perception

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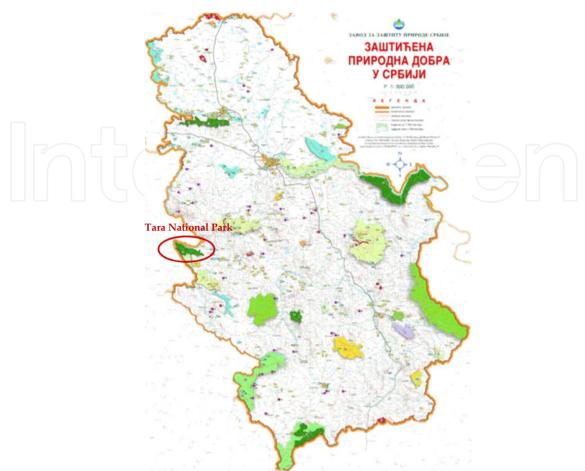
# 1. Introduction

According to an ancient Slavic legend, Tar, king of the gods, chose Tara Mountain with its outstanding and unique natural beauty as the place to spend his divine life [1].

Tara National Park (TNP) was proclaimed a protected natural resource area in 1981 by the First Regulation on the National Park (Official Gazette of RS no. 41/81). According to the Regulation on National Parks of Serbia (Official Gazette of RS no. 39/93), a public enterprise, 'National Park Tara', was founded, with full responsibility for the management of the park [2]. Tara National Park is situated in west Serbia (Figure 1.), the coordinates, according to Greenwich lie between 43°51′ and 43°57′ north, and 17°03′ and 17°11′ east [3]. The region which includes Tara NP extends over an area of 19175 ha. It contains most of Tara Mountain and the region bordered by the elbow-shaped course of the River Drina, between Višegrad and Bajina Bašta, thus belonging to a part of Starovlaške mountains (Starovlaška-Raška Visija highlands) [4].

Tara National Park incorporates the region belonging to the Bajina Bašta municipality. Two local communities, namely Jagoštica and Rastište are situated entirely on the national park territory, with eight further communities partly within the park's boundaries (Perućac, Beserovina, Zaovine, Rača, Mala Reka, Solotuša, Zaugline and Konjska Reka) [5,6]. Five great mountains – Tara, Crni Vrh, Aluške Planine, Zvezda and Kaluđerske Bare – framed by the impressive canyon of the River Drina, represent the park's most precious features. Especially noteworthy is the diversity of the abiogenes and the heterogeneity of the ecological characteristics, as well as a very significant refuge in which numerous relict and endemic species and associations have been preserved, many even since the glaciations. It is considered that certain manmade ecosystems (meadows and pastures) also represent a particular value and potential of this region (Figure 2.) [7].





**Figure 1.** Map of natural protected areas in the Republic of Serbia, with the geographic position of Tara National Park



Figure 2. Meadows and pastures in Tara NP

Tara mountain range was formed more than 600 million years ago from Palaeozoic limestone and shales. Glacial and postglacial events played a significant part in determining the flora and fauna of this protected area. During the great ice age and the alternation of

glacial and interglacial periods, the large Paratetis Sea, part of the Panonian Sea, played an important role. A part of this sea, next to the basin of the River Drina, extended as far as Tara Mountain. Later, the withdrawal and disappearance of the sea caused an alteration of the climate and the formation of specific vegetation [2]. Geomorphologically, the national park region is characterised by a set of mountain humps and highly fissured surfaces bisected by deeply tongued river valleys, with canyon walls of 1000 m in height. The region is made of carbonic, Triassic and chalk rocks [2]. The average altitude is 1000-1200 m. The highest peak in TNP is Kozji rid (1591 m a.s.l.). There are a large number of mountain peaks and ridges, which are excellent for mountaineering and also provide spectacular views. The canyon of the rivers Drina, Derventa and Rača, with their waterfalls and spring Ladjevac, are particularly spectacular [2]. In the national park, agricultural areas cover 3,353 ha, or 17.5 % of total area, comprised of 82 % meadows and pastures, 15 % ploughed fields and 3 % orchards. However, natural resources for the development of agricultural production are limited, because the type of soils differs in their productive value and their capacity to be utilized. There are however, agricultural potentials in terms of meadows and pasture that could support cattle breeding, which have been underdeveloped to date [7].

# 1.1. Biodiversity of Tara

Thanks to the specific orography of the terrain, the Tara range became a refuge for many species of flora and fauna. This diversity is evident not only in the presence of living species, but also by a great number of relict and endemic species. The most important relict is Panchich's spruce (Picea omorika), endemic to this region and a source of national pride, but also an object of interest for world experts, lovers of nature, mountaineers and tourists [8].

The main value of the area is the abundance and biodiversity of natural values. The rich flora is the result of many factors: geographic position, geology, soils, climate, history and altitude[8].

The vascular flora of Serbia contains 3662 taxa [9], of which 1000 plant species have been identified in this region, or one third of the total flora of Serbia, makes TNP the most important area for preservation of biodiversity [4]. According to the research in 1989 [10], the flora of Tara is composed of 35 forest and 9 meadow associations. The majority of species belong to the families Asteraceae, Poaceae, Fabaceae and Lamiaceae. The Asteraceae family accounts for the greatest number of floral species from northern Europe to the Mediterranean [11]. The great number of genera from this family indicates that the Serbian territory is one of the significant development centres of taxonomic differentiation [9].

Forest ecosystems of Tara Mt. are among most diverse and most preserved in Europe. At the lowest elevations the forests are characterised by grey elder (Alnus incana), willow (Salix spp), European walnut (Juglans regia) and the flowering ash (Fraxinus ornus). These are succeeded by forests with Austrian oak (Quercus cerris), Hungarian oak (Quercus frainetto), sessile oak (Quercus petraea), Balkan beech (Fagus moesiaca), and Austrian and Scot's pine (Pinus nigra, P. sylvestris). At the highest elevations theforests consist of silver fir (Abies alba), Norway spruce (Picea abies) and beech (Fagus sylvatica), along with sycamore (Acer pseudoplatanus), mountain elm (Ulmus glabra), European aspen (Populus tremula), etc. A set of impoverished forest associations derived from the Omorikae-Pineto-Abieto-Fagetum mixtum association are found in the national park [2]. Furthermore, there are the plenitude of natural rarities protected by law, such as Panchich's spruce (Picea omorika), the hazel tree (Corylus colurna), European yew (Taxus baccata), European holly (Ilex aquifolium), the Derventa knapweed (Centaurea derventana), alkanet (Gentiana lutea), etc. are a further special feature of the region [2].

Over 250 edible and poisonous mushrooms can be found in the meadows and forests of Tara. The most poisonous is death cap (Amanita phalloides). The edible mushrooms of a high quality include: king bolete (Boletus edulis), yellow morels (Morchella esculent), and delicious lactarius (Lactarius deliciosus). The rich fauna consists of a large number of rare but scientifically important species, a number of which are already extinct in many parts of Europe, such as chamois (Rupicapra rupicapra) and brown bear (Ursus arctors), etc.. There are also many game species: wild boar, wolf, fox, rabbit, marten and wild cat. The mountain complex of Tara, one of the most strictly protected natural areas, provides a habitat for many birds, some of which have already been exterminated throughout most of Serbia (Tomićević, 2005). A small number of golden eagles (Aquila chrysaetos) are present, and the capercaillie (Tetrao urogallus), for example. In total, 53 species of mammal and 82 bird species have been recorded in this region [2].

Meadows cover large areas of the national park, developing as secondary vegetation on the soils of various former forest associations. Thanks to the diversity of habitats, the Tara area provides meadow associations: - Ranunculo - nardetum stricte; Danthonietum - calycinae; *Cariceto – brometum erecti; Rhinantho – cynosuretum cristati;* 

Bromo – plantaginetum mediae; Arrhenatheretum - elatioris; Lythro –caricetum paniculatae; Eriophoretum latifoliae; Patasitetum hybridi [7]. The meadow associations are maintained and preserved ecosystems with varied and rich vegetation and fauna. There are a great number of herbs of pharmacological importance, but they have as yet been insufficiently studied.

#### 1.2. Population

The inhabitants of this region belong to the Dinaroid anthropological type. They are highlanders infused by permanent migration streams from southern parts (eastern parts of Herzegovina, Montenegro and Stari Vlah), people of the same physiological features, little changed across centuries and generations [12].

The population is Serbian and lives in scattered villages, so-called 'starovlaski', where the houses of one family make up an independent economic unity. These houses are often far away from one another, and therefore a single village with a small number of inhabitants may sprawl across a number of kilometres. Two villages are situated entirely within the borders of the national park. Jagoštica is a village of the small scattered type, and Rastište consists of strewn hamlets and represents the biggest and most scattered village in the Tara region. Jagoštica is the most isolated settlement and only in the last ten years it has been better connected with neighbouring Rastište and the surrounding settlements [12].

In the period 1948-1981, the population of the Tara region decreased to 5000 people, of which 900, or 17.2%, live within the national park. In Jagoštica village there are 53 households and 163 inhabitants. Rastište village has 107 households and 285 inhabitants. There are eight villages along the borders of the national park. Parts of the associated households and their estates are located within the national park, including mainly forests, but also meadows and pastures. The main occupations of the inhabitants of this region are agriculture and forestry (Figure 3.). A small number of inhabitants of the region are employed, mainly in forestry. The possibility of employment in other activities is limited, leading to a population drain, which along with a low birth rate means that the population is in decline. The dwindling population is a consequence of the underdevelopment of the region and the difficult local employment situation, causing the inhabitants to migrate to more developed areas [13,14].



Figure 3. Cattle breeding in Tara NP

#### 1.3. Cultural and historical heritage

The Tara Mountain possesses a rich cultural and historical heritage. During the periods of Roman and Byzantine occupation of the Balkan Peninsula, the Tara region and the canyon of the River Drina, belonging to the Roman province Ilirikym, represented the most northern natural defensive border. However, the region was located at the margins of both the Roman and Byzantine cultural influence. Therefore, there are no significant remains from those periods. When the Slavs arrived (10th century) in this area, they brought new customs and forms of organisation along with them [2].

With the foundation of the Serbian State in Raška, this region became the defence zone for the state's northern border. The remains of mediaeval fortresses can be found in Perućac and Rastište. In the second part of the 13th century, king Dragutin founded the monastery at Rača, in the canyon of the River Rača. The significance and cultural role of this monastery was especially prominent after the fall of Serbia under Turkish control. In the most difficult period of World War II, the oldest written monument of the Serbian nation – Miroslavljevo jevandjelje - was kept in this monastery. Upon the liberation of Serbia from Turkish occupation in the mid 19th century, people from Stari Vlah began to move to the Tara region [2].

Today, these ethnographic characteristics of the region represent a special tourism value. Customs concerning slavas, wedding parties and field work are widespread and specific. The local handicrafts were famous for producing small bags, gloves, socks, jumpers, carpets, flasks and saltcellars, but the tradition of the handicrafts faded away, especially with migration of inhabitants from the villages [1].

#### 1.4. Tourism

Various natural values in Tara National Park, namely specific geomorphological units, good climate and unique vegetation, are a basis for the development of appropriate tourism activities [1]. Tara National Park is wonderfully suited for the development of almost all forms of recreational activities and tourism. The national park is a traditional summer and winter resort. Natural beauty, climate and cultural heritage cater for all kinds of tourism, as well as for sport, recreation, hunting, fishing and hiking. Tourism in Tara has not been welldeveloped yet. Partly, this is a consequence of the poor traffic infrastructure and a lack of awareness of the importance of tourism for the further development of the region [1].

However, opportunities for tourism in the Tara National Park are great and varied (Figure 4.). They are based on excellent natural conditions for ecotourism, variety of tourist facilities, good transport links and accessibility to attractive and rare tourist attractions and sites: canyons, viewpoints, lakes, special reserves and cultural monuments. Such natural and physical conditions in the area of Tara provide an excellent basis for tourism development, primarily for the purposes of recreation and leisure, as well as active forms of sports and recreational tourism: excursions, hiking, hunting, fishing and rural tourism [15].

#### 1.5. Organisation and management of Tara National Park

The national park is managed according to annual and five-year protection programmes developed by the Institute for Protection of Nature of Serbia, and approved by the Ministry of Environment, Mining and Spatial Planning [16]. The aims and tasks of development were set out in this programme, which is based on the Spatial Plan of Tara National Park. The programme of protection and development of Tara National Park is based on a concept of permanent and balanced development, protection and preservation of natural and manmade features, the preservation of biodiversity, along with the moderate and controlled utilisation of resources with the following aims [2]:



Figure 4. Predov krst – tourist centre in Tara NP

- Preservation, protection and enhancement of the special natural values of the national park and their utilisation for scientific and other research purposes, education, presentation and recreation according to the ecological potential of the national park;
- Preservation, enhancement and protection of landscapes within the national park, including the flora, fauna, soil, water, air, pastures, meadows, game and fishing, with utilisation based on the principles of spatial capacities;
- Development of activities in line with the protection and development functions of the national park (forestry, hunting, fishing, tourism, agriculture, traffic, etc.);
- 4. Preservation, protection and utilisation of immobile cultural values and all cultural and historical attributes for the purposes of science, education, presentation and recreation;
- Organised multidisciplinary and long-term scientific research into the phenomena within the national park and the education of all categories of local people and sector branches;
- Directional development of all existing and potential new activities based on the traditions of the national park region and the protection regulations, the development of ecological tourism, sport and recreation according to the functions of the national park;
- Prevent degradation of the national park using control and supervision measures, and protect against natural disasters, and seek to enhance the quality of life and the availability of work for the local people.

According to data from the protection and development programme of Tara National Park from the period 2002-2006, it is clear that several challenges affect the management of the National Park. The Park is endangered by the utilization of raw mineral materials, mainly stone and other resources, and also by the exploitation of space for building and tourist purposes without appropriate prior planning or adherence to regulations and construction norms. Other problems include insufficient financial support as well as the lack of support for the creation of a programme for the development of the national park [2]. All the income generated by the public enterprise responsible for the management of Tara is derived from timber. This leads to the question: can and should the income from timber, under a system of restricted fellings (this was, to a high degree, the original intention of the national park designation), finance the realization of almost all of the activities of the national park? [17].

The development concept of the region is based on the utilization of natural resources, with a focus on the preservation of biodiversity and the necessity for tourism and recreation; the production of traditional and healthy food; the establishment of small handicrafts, especially in the protected zones; protection of natural resources and biodiversity involving the application of necessary sanitation and reconstruction measures, and the engagement of labour from the surrounding villages in the activities of the national park. It is necessary to get institutional support for all of these development activities in Tara National Park [2].

Based on research conducted in 2004 on Tara National Park, the findings indicate the need to strengthen the clarity of nature conservation policy and the missions of the responsible authorities. In addition, in order to promote the involvement of local people and empower the national park management to work with them collaboratively, it is necessary to promote communication among all stakeholders [3, 18-20].

# 2. Methodology

During the research, two types of data were collected: primary and secondary data. Primary data were obtained through the survey method where a questionnaire was devised to enable direct communication with the respondents.

The purpose of the questionnaire involved the determination of economically unusable values of the park by the travel-cost method, determination of the natural values of the park and understanding the relationship between the tourists and the protected area. Also, the aim was to detect the elements that influence the formation of a positive or negative attitude towards the natural values of the park and conservation of nature and species.

The sample consisted of 60 visitors, who stayed in the Tara National Park, in the tourist locality Kaludjerske Bare, in January 2009. On average, each interview lasted about 15 minutes involving individuals, groups and families. The survey questionnaire included a mixture of open, fixed-response and multiple response questions. A combination of mixture was used to examine the various dimensions to the respondents' attitudes and especially to get right information [13,21].

The first set of questions was related to socio-demographic characteristics: gender, age, number of members in the household, education, occupation and monthly income per household. In the second set of questions, the respondents answered which type of transport they had used to reach Tara, how long they planned to stay, how many times they had visited the park, where they came from and how much money they had spent on the trip to Tara and during their stay on the mountain. Questions were also asked relating to whether the respondents were aware of the fact that Mt. Tara is a national park and whether they knew why Tara had been designated a national park. Also, the respondents were asked to answer which capacities of the park they had visited and which are, in their opinion, activities of priority. Within this set there are questions about the level of awareness, opinions, motivations and aspirations. This part of the survey is also the most comprehensive since it is a study of attitudes and opinions. For the better understanding of the relationships between tourists and nature, the tourists gave their answers regarding the questions which consisted of a series of statements, where they expressed the degree of agreeing or disagreeing. The statements were related to how important it is to preserve the environment, to what extent they are willing to give up their personal pleasures in favor of endangered species in the Tara NP, and whether they are willing to support the preservation and protection of species and nature through their willingness to allocate certain funds for this purpose.

In the analysis, we used qualitative and quantitative approach. Quantitative research attempts to explain social reality by means of controlled, mathematical methods [22]. The basic goals include the quantifying of social phenomena, the formulating and testing of theories, and the making of predictions [23,24]. Qualitative research seeks to understand social phenomena, where the researcher is interested in the values and feelings that determine human actions in certain situations.

The shortcomings of the research are related to the short time period in which the research was done. Also, the research was done only in one locality and the size of the sample was inadequate due to the limited budget. The research should be repeated over a longer period of time, continuously during the summer months and at other tourist sites in the area of Tara and thus obtain more comprehensive data on the behavior of tourists in the Tara NP and their attitude towards nature.

Secondary data includes relevant documentation, such as written reports and programmes provided by the public enterprises, a spatial plan of Tara NP, reports by the Institute for Nature Protection of Serbia and reports by the Ministry of Environment, Mining and Spatial Planning.

#### 3. Results

# 3.1. Demographic and socio-economic structure of tourists

The research included 60 visitors of NP Tara and was done at the site called "Kaludjerske Bare". There were 38 male and 22 female respondents (Table 1). Table 1. shows the age structure of the respondents.

In regard to education, the majority of the respondents are highly educated (Table 1.). Regarding the monthly income at the household level, most respondents did not want to declare themselves (24) and the obtained answers are shown in Table 1.

Gender	Frequency	Percentage	
Male	38	63.3	
Female	22	36.7	
Total number of interviewed tourists	60	100.0	
Age structure of the respondents	Frequency	Percentage	
Less than 24	5	8.3	
25-34	28	46.7	
35-44	12	20.0	
45-54	10	16.7	
55-64	5	8.3	
More than 64	/	/	
Total number of interviewed tourists	60	100.0	
Education	Frequency	Percentage	
Primary school	2	3.3	
High school	15	25.0	
Two or three-year college	10	16.7	
Faculty	28	46.7	
Postgraduate studies	5	8.3	
Total number of interviewed tourists	60	100.0	
Monthly income per household	Frequency	Percentage	
From 15,000 to 30,000 RSD	2	3.3	
From 30,001 to 50,000 RSD	2	3.3	
From 50,001 to 80,000 RSD	11	18.4	
From 80,001 to 100,000 RSD	9	15.0	
More than 100,001 RSD	12	20.0	
I would rather not say	24	40.0	
Total number of tourists surveyed	60	100.0	

**Table 1.** Research results concerning demographic and socio-economic structure of the tourists interviewed

# 3.2. Tourists familiarity with the NP Tara

Health and leisure features of tourism travel are incorporated in the tourists' values to which tourist demand is aimed at, especially because the tourists' desire to travel is often identified with a desire for rest, entertainment and recreation in an ecologically healthy

environment [25]. Tourism enables man to perceive the preserved richness of nature on the spot. This way of getting to know the broad layers of the society is a kind of "school in nature" and should be nurtured and expanded [26]. The importance of Mountain Tara for the development of tourism has increased in particular after the mountain was declared a national park and after the construction of accommodation facilities [1].

The research results indicate that (96.7%) tourists are aware of the fact that Mountain Tara has the status of National Park, only (3.3%) tourists gave a negative answer.

Further on, when tourists were asked to answer why Mountain Tara was declared a national park, the obtained answers point out the fact that it is because of: 'untouched nature', 'beautiful scenery', 'preserved nature', 'rare and endangered plant and animal species', many of which mentioned Pančić's Spruce, 'rich wildlife', 'lakes' and 'forest' (Figure 5).



Figure 5. Landscape in Tara NP

## 3.3. Travel expenses

In the last forty years, methods have been developed for assessing the economic value of non-market natural resources for parks and recreational areas. The method of travel expenses is often used to assess the recreational value of protected areas [27]. The method is based on the evaluation of total costs incurred by a visitor within the protected area that reflect in the willingness of a visitor to accept the costs of maintaining the protected resources by paying for them. One should also know that the results of applying this method are typical for each region [28].

Travel expenses represent the sum of transport costs and the expenses of staying at the desired destination. The assumption is that age, educational level and monthly household income affect travel expenses. The expected impact is directly proportional to the increase in costs.

The correlation between the distance from the place of residence and Mountain Tara corresponds to the costs of transport. Those tourists who come from Vojvodina or Southern Serbia spent more money on transport to Tara than those living closer to Tara. Also, tourists who came by car spent more money than those who came by bus.

The length of stay on the mountain is parallel with the increase in total costs. In accordance with the increase of the number of days spent on the mountain, the amount of money spent by a tourist also increases, and the length of stay itself corresponds to the entire experience and impression that a tourist gets about NP Tara.

The summarized results show that almost a third of the tourists interviewed was for the first time on Tara (30%) while, on the other hand, about a third of the respondents (26.7%), visited NP Tara for more than 4 times. The remaining number of the respondents visited Tara from 2 to 4 times. Among other things, the number of visits to the park has an influence on the creation of positive attitudes towards nature conservation; with an increasing number of visits the intensity of experience in nature also increases which then strengthens the relationship man-nature, or man- the environment and vice versa (Figure 6.).



Figure 6. Tourists in Tara NP

# 3.4 The correlation between visitors and the natural and tourist values of NP Tara

Many national parks were originally declared as places of inspiration for the public, and for their spiritual and physical recovery [29]. Thus, tourism has become a powerful tool in the function of human health – physical, mental and psychological [30,31].

Research results presented in Table 2. refer to the activities in the park that tourists undertook during their stay on Tara.

	Frequency
a) visit to the central part of the national park	17
b) walking tours through nature, through attractive regions	42
c) children's programs and activities	8
d) sports events	6
e) educational and cultural events	13
f) other	2
Total number of interviewed tourists	60

Table 2. Research results concerning the activities in the park that tourists undertook during their stay

# 3.5. Relation of tourist towards the protection and preservation of nature in Tara NP

Protected areas are essential for maintaining healthy environment. Those areas provide higher quality of life and opportunity for recreational activities [32].

The preserved nature is a major resource for tourism development. The natural environment is necessary to preserve, protect and organize in order to maintain the natural and tourism values. However, with the development of tourism inevitably occur degrading processes of nature. The extent to which are tourists aware of their negative influence on nature, what is their attitude towards nature protection and protection of species, and how willing are they to support protection, will be elaborated in the following analysis.

Statement that relates to the amount of fees in NP Tara "I have already paid too much taxes" represent extreme reluctance of tourists, as 40.0% of respondents evaluated this statement under number 3. After this "neutral category", 35.0% of respondents belong to category "reject completely". Similar category is "somewhat reject", under the number 4, which was supported by 6.7% of respondents. Category "agree fully" support 11.7% respondents, while "somewhat agree" category choose 6.7% of respondents.

Figure 7. illustrates the level of agreement with statement "Protection and conservation of nature is a very important issue and I think that the costs of those services are above the other costs according to their importance".

National parks have many functions, and touristic and recreational are one of the most important between those. In order to preserve and maintain the fundamental phenomenon

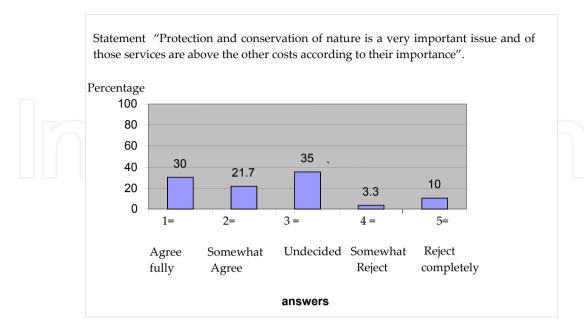


Figure 7. The survey results pertaining to direction and intensity attitude which tourists have according to nature conservation

because of which territory got the status of national park, comprehensive understanding of the nature is necessary (Figure 8.) [26].



Figure 8. Beautiful scenery in Tara NP

The extent to which tourists are aware of their, very often, degrading effect on the protected area, as well the extent to which they are ready to give up personal pleasures in favor of protecting endangered species is shown in Table 3. Construction of infrastructure and material base for tourism leads to serious damage of vital elements of the environment, the loss of natural resources, and therefore the impairment of recreational attributes and attractive environment.

Statement	Assessment scale	frequency	percentage
Among others (e.g. conservation nature and species), a major task of the National Park is the provision of the visitor infrastructure. Increasing the number of visitors due to these activities might threaten the existence of endangered species. To which extent would you enjoy extended visitors' infrastructure even if it would threaten conservation endangered species? (value with 1=I would use facilities	1= I would use tourist facilities extensively	9	15.0
	2= I would use tourist facilities to certain extent	1	1.6
extensively, to 5=I would not use facilities at all))	3= undecided	22	36.7
	4= I would not use tourist facilities to certain extent	10	16.7
	5= I would not use tourist facilities at all	18	30.0
Total number of interviewed tourists		60	100.0

**Table 3.** The survey results pertaining to extent of willingness tourists to discard tourists' applicability for conservation endangered species

The most of respondents (36.7%) expressed a neutral position regarding the willingness to forego for the sake of expanding tourism in contrast to survival of endangered species. Position under the number 5 defines a waiver of touristic facilities in order to preserve endagered species, for which opted 30.0% of respondents. Close to previous oppinion is the category under the number 4, which point out that tourists would use touristic facilities to some extent, for which 16.7% of respondets gave a vote. The percentage of respondents who would use the maximum of tourist facilities, regardless of the consequences on nature, is 15.0%, following with 1.6% of respondents who would used a those amenities to some extent.

### 4. Discussion

National parks have the privilege to be the highest in the ranking of protected natural resources, because of their most valuable and most attractive natural resources and quality.

However, it is wrong to think that national park just fulfills the function of relaxation and recreation as other touristic places. Primarily, the set of rules regarding proper behavior and lifestyle should exist in the national park. Protected area should be used for sightseeing and enjoying in nature, and tourist visits must be subordinated to the principles of nature protection [26].

Tourists who were the part of the survey in framework of this research are aware of the fact that they are located in highly valuable natural environment, but their understanding of the essence of nature protection is not developed enough. Tourists have extensively cited the features which they consider as reasons for the designation of NP Tara. Although those characteristics are quite general and can refer to any protected area, surveyed tourists still showed the certain knowledge about the natural environment, which is a good base for further education and encouraging programs for the raising awareness about environment.

The results indicate indefinite attitude of tourists towards the issue of nature protection in Tara National Park, which were showed by opting mostly for neutral statements and by not expressing a clear opinion. It is evident that spatial attention should be given to this group of tourists through educational programs and facilities that would expand their knowledge about the relationship man-nature. Education would contribute to better relationship of a wider range of tourists with NP Tara and developing more humane and ecological relationship of visitors with nature. It is encouraging fact that the part of tourists who declared positively to the protection of nature represents the next major category of respondents. They have better sense of the need for nature protection, as well as sense for aesthetic of nature and its beauty. Of course, it must be emphasized that there is also the part of tourists who were negatively declared toward the protection of nature and its values. It is a good indication that this category of visitors is quite small, and therefore it is necessary to facilitate new ways of thinking and raising awareness of the value and importance of Tara National Park.

Research showed that tourists have mostly same opinion regarding the evaluation of touristic offer, where the high values are given to recreation in nature, long walks, diverse sport activities, but also for sightseeing of animals and plants. It is clear that these results are a kind of advice for management of NP Tara. It indicates the need for diversifying of offers, which would respond to the demands of visitors and in the same time be in line with nature protection. A thoughtfully organized touristic offer with specific facilities and ecological image would present the Tara National Park in the best light, as an institution of protection and tourism.

#### 5. Conclusions

Protected areas are primarily viewed in biological or ecological terms, but some scholars emphasised the economic importance of land managed for conservation objectives. However, protected areas are important at many levels, from local and national to global levels, and they carry out numerous functions beneficial to humans, and even essential to human welfare [33]. Protected areas contribute to a country's social and economic objectives through supporting ecosystem services, promoting the sustainable use of renewable resources, as well as providing places for tourism and recreation. Tourism is considered to

be a viable conservation strategy which can benefit the local communities and contribute to the conservation of the protected areas.

Advantages and motives of people staying in protected areas are: enjoying in the simplicity of life in a protected area, awareness of the beauty of protected area; feeling better and making a connection to the natural environment; sharing of these experiences with other people, getting to know the plants and animals that extinct from urban areas; activating the muscles after long walks, spending the time in an environment that allows the deepening of life issues and dilemmas [33].

Tourists visit the national parks and other protected areas, because in them they are able to experience the values that cannot be found elsewhere. The role that national parks play in society and in tourism is often associated with national identity [29]. National Parks provide the desired physical and mental peace, relaxation and aesthetic experience, which inspire a man to "return to nature" [34].

Natural rarities of Tara National Park with many attractive features are of paramount importance for tourism, which represent an opportunity for development of various forms of tourism that should aim to preserve the ecological determinant in the area. The economic benefits from tourism impose the necessity for establishing a better relationship between the visitors and the protected area. Tourism is one of the most favorable economic activities in NP Tara, and the protection of environmental resources is the only guarantee for the realization of tourist activities.

The paper contributes to a better understanding of the relationship of tourists and the recreation values of park, nature protection and the determination of natural values of the park. The results indicate that socio-demographic factors and the number of visits to the park affect the formation of attitudes toward visitors of NP Tara. Those tourists who have more income, higher level of education and who have repeatedly visited NP Tara demonstrated a positive attitude towards nature conservation in the park. The majority of respondents did not express the attitude toward the nature protection (over the half of respondents) and they are characterized by belonging to various socio-economic categories.

Suggestion for the park managers and government agencies is to focus on development of programs to raise environmental awareness of tourists in order to better understand the protection and preservation of the Tara National Park. For the sake of more efficient management strategies it is needed to support activities prioritized by tourists, and that are in accordance with the preservation and protection of the environment.

Introducing the selling the entrance ticket for the park is quite reasonable and practical, which was confirmed with the result of survey. Therefore tourism promotes the nature protection and has an active function, while a protection gain the necessary financial resources for its functioning.

This survey could serve to the administration of the National Park Tara in considering the options to improve the awareness of tourists in terms of better understanding the natural values of protected areas, and with the purpose of improvement of management of natural resources of this protected areas.

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#### 6. References

- [1] Mosurović M., Simić M. Tara-Turistički vodič. Užice: Grafos; 2002.
- [2] Javno preduzeće 'Nacionalni park Tara' Program zaštite i razvoja područja Nacionalnog parka Tara za period 2002-2006 godina. Bajina Bašta: Javno preduzeće 'Nacionalni park Tara'; 2002a
- [3] Tomićević J., Shannon M.A., Milovanović M. Socio-economic impacts on the attitudes towards conservation of natural resources: Case study from Serbia. Forest Policy and Economics 2010; 12: 157-162.
- [4] Gajić M. Flora Nacionalnog Parka Tara. Beograd: Šumarski fakultet i Šumarska sekcija Bajina Bašta; 1989.
- [5] Tomićević, J., Milovanović, M. Park people relationship: A case study from Serbia. Proceedings of the International Conference -1st International conference 'Research people and actual tasks on multidisciplinary sciences', 6-8 June 2007, Volume 3, ", Lozenec, Bulgaria, Bulgarian National Society of Agricultural Engineers Engineering and Research for Agriculture; 2007. p91-96.
- [6] Tomićević J., Milovanović M., Konold W. Uloga participacije lokalne zajednice u održivom korišćenju prirodnih resursa Nacionalnog parka Tara. Udruženje šumarskih iženjera i tehničara Srbije, Beograd, Šumarstvo 2005; (4) 81-92.
- [7] Zavod za zaštitu prirode Srbije Stanje područja nacionalnog parka Tara. Beograd: Zavod za zaštitu prirode Srbije; 2002.
- [8] Javno preduzeće 'Nacionalni park Tara' Srednjoročni plan izrade i donošenja programa gazdovanja šumama sa pravom svojine na teritoriji opštine Bajina Bašta. 2002 – 2007. godina. Bajina Bašta: Javno preduzeće 'Nacionalni park Tara'; 2002b.
- [9] Stevanović V. The red data book of flora of Serbia 1, Extinct and Critically Endangered Taxa. Ministry of Environment of the Republic of Serbia, Faculty of Biology, University of Belgrade, Belgrade: Institution for protection of Nature of the Republic of Serbia; 1999.
- [10] Gajić M., Kojić M., Karadžić D., Vasiljević M., Stanić M. Vegetacija Nacionalnog Parka Tara. Beograd: Šumarski fakultet; 1992.

- [11] Obratov D., Djukić M. Flora Diversity of the National Park Tara. In: Forest Ecosistems on the National Parks. International Scientific Conference held at Tara National Park, Bajina Bašta, Serbia/Yugoslavia, September 9th-12th, Monograph on the Subject Inclusive of The Conference Report, Belgrade: Ministry of Environment of the Republic of Serbia; 1996. p226-229.
- [12] Institute for nature conservation Proposal to support the Tara Mountain Biosphere Reserve nomination. Belgrade: Institute for nature conservation; 2003.
- [13] Tomićević, J. Towards Participatory Management: Linking People, Resources and Management. A Socio-Economic Study of Tara National Park. Culterra, Schriftenreihe des Instituts für Landespflege der Albert-Ludwigs-Universität Freiburg, Heft 43, Freiburg; 2005.
- [14] Tomićević J. The impact of benefits on conservation attitudes of local people in the Tara National Park. "Management of forest ecosystems in national parks and other protected areas". Proceedings, Jahorina – NP Sutjeska, July 5-8, Jahorina: 2006. p485-492.
- [15] Nikolić S. Turizam u zaštićenim prirodnim dobrima Srbije. Beograd: Zavod za zaštitu prirode Srbije; 2006.
- [16] UNCE Prikaz Stanja Životne Sredine u Srbiji 2002 godine (prevod). Beograd: Ministarstvo za zaštitu prirodnih bogastava i životne sredine, Republika Srbija; 2003.
- [17] Vučković M., Ranković N., Stamenković V. Relation of Ecological and Economic Function of the Forest of the National Park "Tara". In: Forest Ecosistems on the National Parks. International Scientific Conference held at Tara National Park, Bajina Bašta, Serbia/Yugoslavia, September 9th-12th, Monograph on the Subject Inclusive of The Conference Report, Belgrade: Ministry of Environment of the Republic of Serbia; 1996. p169-174.
- [18] Tomićević J., Shannon M. A., Vuletić D. Developing Local Capacity for Participatory Management of Protected Areas: The Case of Tara National Park. Šumarski list, 2010; 134 (9-10) 503-515.
- [19] Tomićević J., Shannon M.A., Bjedov I., Obratov-Petković D. Linking protected areas management and local communities - example of Serbia, First Serbian Forestry Congress (under slogan - Future with Forests) -On the occasion of jubilee marking 90 years of its educational, scientific and professional work, Forestry faculty organises the international scientific conference, In: Ristić, R., Medarević, M., Popović, Z. (eds.) (2010): Congress Proceedings, November 11-13, Belgrade: Faculty of Forestry, University of Belgrade; 2010. p1124-1132.
- [20] Tomićević J., Bjedov I., Shannon M.A., Obratov-Petković D.Understanding Linkages Between Public Participation and Management of Protected Areas-Case Study of Serbia. In: Ishwaran N. (ed.) The Biosphere. Rijeka: InTech; 2012. p131-142.
- [21] Tomićević J., Bjedov I., Obratov-Petković D., Milovanović M. Exploring the park-people relation: collection of Vaccinium myrtillus l. by local people from Kopaonik National park in Serbia. Environmental management 2011; 48 (4) 835-846.
- [22] Atteslander P. Methoden der empirishen Sozialforschung. 8. Auflage Sammlung Göschen. Berlin: de Gruyter; 1995.
- [23] Ragin C. Constructing Social Research, Pine Forge Press: Thousand Oaks; 1994.

- [24] Flick U. Qualitative Forschung: Theorie, Methoden, Anwendung in Psychologie und Socialwissenshaften, 2. Auflage. Hamburg: Rowohlts enzyclopädie; 1996.
- [25] Dojčinović Đukić V. Kulturni turizam. Beograd: Klio; 2005.
- [26] Vidaković P. Nacionalni parkovi i turizam, Zavod za zaštitu SR Hrvatske, Zagreb: Insitut za turizam u Zagrebu; 1998.
- [27] Ortaçeşme V., Özkan B., Karagüzel O. An Estimation of the Recreational Use of Kursunlu Waterfall Nature Park by the Travel Cost Method, Tubitak, Turkey, Turk J Agric For 2002; (26) 57-62.
- [28] Dixon J.A., Pagiola S. Economic Analysis and Environmental Assessment. Environmental Economics and Indicators Units, Environment Divelopment; 1998.
- [29] Eagles P.F.J, McCool S.F. Tourism in National Parks and Protected Areas and Managment. UK: CABI Publishing; 2002.
- [30] Savelli A. Sociologia del turismo. Milano: Franco Angeli; 1993.
- [31] Tomićević J., Milovanović M. Status zaštićenih područja i ciljevi upravljanja. Udruženje šumarskih iženjera i tehničara Srbije, Beograd, Šumarstvo 2006; (1-2) 181-188.
- [32] CBD Protected Areas in Today's World: Their Values and Benefits for the Welfare of the Planet, CBD Tehnical Series No. 36, Montreal: Secretariat of the CBD; 2008.
- [33] Harman D., Putney A.D. The Full Value of Parks. Oxford, UK: Rowman & Littlefield Publisher, INC; 2003.
- [34] Nikolić S. Priroda i turizam Srbije. Beograd: Zavod za zaštitu prirode Srbije i Ekocentar; 1998.