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Determination of Visitor Satisfaction in The Tourism and Recreational Use of Kovada Lake National Park

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Abstract

This study includes the data obtained by face-to-face survey technique interviews with 250 visitors in the national park area between 01.05.2021 and 01.05.2022, in order to determine the recreational satisfaction of Kovada Lake National Park visitors. With the survey questions, the determination of the visitors' thoughts about the functions in the national park and the differences of opinion about the educational status of the users with the factors related to this situation were examined. In conclusion; It has been determined that factors such as "natural resource values of the national park, visual quality", "outdoor recreational activities", "accessibility, use of space", "discovering natural resources and finding peace", "desires to benefit from the area" are effective in visitor satisfaction. As a result of the findings, it is seen that Kovada Lake National Park has not been able to effectively evaluate the recreational potential it has and it is seen that carrying out recreational activities in limited areas has a negative impact on natural resources.

Keywords: *Kovada Lake National Park, visitor satisfaction, recreation, protected areas.*

Kovada Gölü Milli Parkı'nın Turizm ve Rekreasyonel Amaçlı Kullanımında Ziyaretçi Memnuniyetinin Tespiti

Öz

Bu çalışma, Kovada Gölü Milli Parkı ziyaretçilerinin rekreasyonel memnuniyetinin belirlenmesi amacıyla, 01.05.2021- 01.05.2022 tarihleri arasında milli park alanında 250 ziyaretçiye anket tekniği ile yüz yüze görüşülerek elde edilen verileri kapsamaktadır. Anket soruları ile ziyaretçilerin milli parkta yer alan fonksiyonlara ait düşüncelerinin tespiti ve bu duruma ait faktörlerle kullanıcıların eğitim durumuna ait görüş farklılıkları irdelenmiştir. Sonuç olarak; "milli parkın sahip olduğu doğal kaynak değerleri, görsel kalite", "açık hava rekreatif faaliyetler", "ulaşılabilirlik, alan kullanımı", "doğal kaynakları keşfetme ve huzur bulma", "alandan yararlanma istekleri" gibi faktörlerin ziyaretçi memnuniyetinde etkili olduğu tespit edilmiştir. Elde edilen bulgular sonucunda Kovada Gölü Milli Parkı sahip olduğu rekreasyonel potansiyeli etkili bir biçimde değerlendiremediği ve rekreasyonel faaliyetlerin kısıtlı alanlarda gerçekleştirilmesi, doğal kaynaklar üzerinde olumsuz etki yarattığı görülmektedir.

Anahtar kelimeler: *Kovada Gölü Milli Parkı, ziyaretçi memnuniyeti, rekreasyon, korunan alanlar.*

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1. Introduction

In the use of protected areas for tourism and recreation purposes, it is necessary to ensure the sustainability of the area and provide the highest level of satisfaction to the visitors, to determination of the factors affecting tourism/recreational activities, to reveal the relationship of these factors with other factors.

As a result of technological developments and environmental factors, people's holiday perceptions have changed. Interest in protected areas (national parks, nature conservation areas, etc.) has increased considerably in order to get away from city life and experience the peace of natural beauty. The unconscious and excessive use of natural resources, the decrease in species diversity due to global warming and climate change have revealed the pressures and destruction on these ecosystems. Planning and management are needed to identify and eliminate the negative effects that arise as a result of pressure.

The demand for tourism and recreation, along with threats and degradation to natural and cultural resources in protected areas, causes to decreases in the post-recreation experience and satisfaction of visitors. For this reason, in addition to protecting natural and cultural resources, visitor management should also be designed within the scope of sustainability (Candrea & Ispas, 2009).

Visitor management is the minimization of the environmental, cultural, economic and social pressures created by tourism. With the increase in visitor usage in protected areas, negative effects may be observed on resource values and visitor experience quality. In the scientific researches conducted in the last 20 years, visitor management is a tool used to minimize the negative effects on the result of tourism/recreation activities (Mason, 2005).

The primary purpose of visitor management plans is to increase the quality of satisfaction of visitors by offering tourism/recreation activities while ensuring the protection of natural and cultural resources within the framework of sustainability.

Research has been conducted on visitor impacts and management, user expectations and satisfaction qualities, and the importance of the subject in terms of sustainable management has been revealed. Hof & Lime (1997), Leung & Marion (2000), Eagles et al. (2002), Cole (2004), Mason (2005), Müderrisoğlu et al. (2005) and (2009), Candrea & Ispas (2009), Memişoğlu (2009), Akten (2009), Uzun & Müderrisoğlu (2010), Akten et al. (2012), Sıvalıoğlu (2012), Cheung (2013), Kılıç (2020) in their studies they have attracted attention to the expectations and requests of visitors from the area, recreational activities, visitor behavior, points where there is a high density of visitors on the area, the negative effects of recreational activities, acceptable exchange limits, resource protection, and the place and importance of approaches such as visitor experience and quality in planning and management.

The scope of the study is to determine the visitor satisfaction status, requests and demands for area use, to identify problems related to visitor use and methods to be followed for their solution. Protected areas; these can be affected directly and indirectly by natural and human-related sources. These impacts on the use of protected areas usually appear as negative results. In line with the findings obtained as a result of the study, the demands for visitor preferences in Kovada Lake National Park were determined and management suggestions for the use of the national park were developed.

2. Material and Method

Kovada Lake National Park (KLNP) is located within the borders of Eğirdir and Sütçüler districts of Isparta province in the west of the Mediterranean region. The national park, located in the south of Eğirdir district, is between 37° 34' 47" - 37° 42' 24" northern latitudes and 30° 50' 45” - 30° 55' 53" eastern longitudes (UDGP, 2008).

Kovada Lake and its surroundings were declared a National Park on 03.11.1970, and the total area of the national park is 6,534 hectares. 790 hectares of this area is covered by the lake surface. Kovada Lake is the extension of Eğirdir Lake towards the south and took its current form as a result of the narrow valley in between being filled with alluvium. The natural ecosystem and geomorphological structure of the National Park make the area important both regionally and nationally. In 1992, the

1626 hectare area of Kovada Lake and its surroundings was declared a 1st Degree Natural Protected Area. Kovada Lake National Park is used as an outdoor recreation area. The natural resource values of the park contribute to outdoor recreation and use, which is the main resource value of the national park (UDGP, 2008). The KLNP is suitable for recreational activities such as camping, caravanning, picnics, horse farm and horse riding, water sports, hiking and photo safari and others (Aydemir et al., 2020).

The aim of the research is to reveal the satisfaction level of Kovada Lake National Park visitors. Requests and demands of visitors from the national park, reasons for coming to the national park, area usage preferences, recreational activities they do in the park, services and facilities that are considered deficient, situations that prevent them from spending time in the area for a long time, institutions and organizations that should play a role in increasing visitor satisfaction, whether information activities in the area are sufficient and materials that should be available, the determination of their opinions about the functions in the national park, and the factors related to this situation and the differences in opinions regarding the educational status of the users were examined.

In this context, plans and reports prepared by relevant institutions and organizations in Kovada Lake National Park, photographs taken in the research area, observations and investigations made in the national park, and surveys made to visitors were used to obtain current data about the research area and to guide the method of the study.

The stages of the method applied within the scope of the study; a) “Sustainable management and planning of protected areas, factors affecting user satisfaction, protecting the visitor experience and resource, scanning of domestic and foreign literature on the concepts of visitor activities management process”, b) “Field studies carried out for the purpose of obtaining the inventory”, c) “Survey study conducted to determine visitors' opinions about the area”, d) “Field studies carried out for the purpose of obtaining the inventory” and e) “Conclusion of the study with suggestions for problem identification” it consists shaped of 5 successive stages.

When examined in terms of the purpose of the study, the research method suitable for the process of collecting and evaluating data is a case study. Case study is preferred in research because it provides the opportunity to analyze and adopt social realities in detail and to identify differences of opinion among participants and make assumptions (Cohen & Manion, 1994).

The universe of the study creates visitors visiting Kovada Lake National Park. In order to have detailed information about the subject and for the reliability of the study, attention was paid to the fact that the educational status, age group and professions of the visitors were different and that the test subjects were randomly selected. While determining the number of test subjects, the number of visitors included in Table 1 was taken into consideration.

The data on the number of people who have visited the national park in the last 5 years have been obtained from the Isparta Provincial Nature Conservation National Parks Directorate and is given in Table 1 below. In Table 1, the average number of people who visited the national park in the last 5 years is seen as 13,453.

Table 1. Number of visitors to visiting Kovada Lake National Park

NUMBER OF VISITORS		YEARS				
		2018	**2019**	**2020**	**2021**	**2022**
MONTHS	January	100	400	700	13	0
	February	100	300	200	9	150
	March	400	300	200	3000	300
	April	400	800	-	2000	1000
	May	2400	2495	-	1100	1050
	June	900	3525	1095	1100	400
	July	700	3192	2200	2200	1700
	August	1700	3765	2700	0	1000
	September	700	1860	2700	300	700
	October	700	1600	2400	700	800
	November	1300	2830	1200	700	800
	December	700	880	1700	700	400
TOTAL		**10100**	**21947**	**15095**	**11822**	**8300**

In the calculation of the sample size to be used in the survey research, the following formula was used.

$n= [N * t^2 * p * q] / [d^2 * (N-1) + t^2 * p * q]$

In this place it is expressed as follows;

n= Number of samples
N= The size of the population
t= Confidence coefficient (This coefficient is taken as 1.96 for 95% confidence)
p= The possibility of the feature you want to measure being found in the population (p=0.5)
q= The possibility that the feature you want to measure is not found in the population (q=0.5)
d= Accepted sampling error (d=% 10)
When the values are replaced in the formula, the sample size is;
$n= [13.453* 1.96^2 * 0.5 * 0.5] / [0.10^2 * (13.453-1) + 1.96^2 * 0.5 * 0.5] =$ ***95.36***

Although it was found that it would be sufficient to apply a survey to 95 people as a result of the calculation, the reliability of the study was increased with a face-to-face survey conducted on 250 people who visited the study area on 01.05.2021-01.05.2022. A visitor interview (survey) form was used as a data collection tool in the study. A field study was conducted to determine whether the survey questions to be created within the scope of the study were suitable for data collection tools in the national park area before starting the research. The information obtained as a result of literature searches was adapted to the survey and a scale was created. In the preparation of the interview (survey) form; the studies of Kılıç (2020), Yıldız (2019), Karakaya (2019), Düzgüneş (2015), Albayrak (2010), Alkan & Korkmaz (2009), Akten (2009) were used. The opinions of experts were taken at the stage of deciding the suitability of the prepared visitor interview (survey) form, correcting errors and determining the reliability of the scales. After the necessary arrangements have been made, the visitor interview (survey) form has become applicable.

There are a total of **21** questions in the visitor interview (survey) form applied in the study and it consists of **three parts**:

In the first section, 6 questions regarding the personal information and demographic characteristics of the visitors are included.

In the second section, there are 5 questions where the visitor's area usage preferences are evaluated. Of these questions are: 3 of them are multiple-choice, 2 of them are non-multiple choice.

In the third section, there are 10 questions to determine the perceptions and attitudes of visitors towards the national park. Of these questions; 6 of them are multiple-choice, 3 are non-multiple choice, and the other question is a five-point Likert scale consisting of 10 statements/judgments. This question can be answered by visitors as follows and they were asked to evaluate the questions as: ***"1. I Strongly Agree, 2. Agree, 3. Undecided, 4. Disagree, 5. I Strongly Disagree"***. They were asked to evaluate the statements in the indicator list by giving a value of 1 to the statement they considered

the most important and a value of 5 to the statement they considered the most insignificant. The evaluation of each of the responses of the participants to the factors related to the measures to be taken in the national park included in the indicator below the average of 2.5 shows that they participate in the factors and the level of importance is high.

SPSS 25.0 (Statistical Package for Social Sciences) program was used in the analysis of the surveys. In the analysis of the data; In order to determine which of the tests (parametric or non-parametric tests) to be used in the evaluation of the data is appropriate, Kolmogorov-Smirnov and Shapiro-Wilk tests and normality test, analysis of frequency and percentage values for multiple-choice and non-multiple-choice questions, descriptive statistics for Likert-scale questions (means standard deviation, variance) and reliability test, Mann-Whitney U test and Kruskal-Wallis test were used to determine whether the demographic characteristics of the visitors and their opinions and attitudes about the national park differed. In statistical analyses, the confidence interval of 95% and the margin of error significance level were taken as criteria in calculating the representativeness of the sample group to the universe. Cronbach's Alpha coefficient was used to analyze the reliability of the data. Cronbach's Alpha value was determined as 0.810 and the scale is highly reliable.

3. Findings and Discussion

3.1. Demographic Information

%56.4 of the participants in the survey are male and %43.6 are female. 33.6% of the participants are between the ages of 18-30, 31.6% are between the ages of 30-40, 16.8% are between the ages of 40-50, 14.8% are between the ages of 50-60, % 3.2 of them are aged 60 and over. Participants aged 18 and over were included in the study so that they could participate in the survey independently. When the educational status of the participants was examined; 1.6% of them had literate, 10.8% had primary education, 24% had high school education, 11.2% had associate degree, 34% had undergraduate education and 18.4% had postgraduate education. When we look at the their income status; 14.8% have low income, 74% have medium income, 10.8% have high income and 0.4% have very high income. When we look at the professions of the participants; 20% are workers, 17.6% are students, 16% are civil servants, 12% are forest engineers, 8.4% are housewives, 7.6% are other professional groups (architects, doctors, teachers, managers, etc.), 6.4% are academic personnel, 5.2% are farmers, 4% are self-employed and 2.8% are retired people. The places where they permanently reside are; 75.6% of it is Isparta, 14.4% is other cities (Aydın, Niğde, Denizli, etc.), 7.2% is Antalya and 2.8% is Burdur.

3.2. Area Use Preferences

3.2.1. Frequency of visits to national park

When the frequency of participants visiting the national park was examined, the option "a few times a year" (69.2%) was most preferred (Table 2).

Table 2. Frequency of visits to Kovada Lake National Park

Frequency of visits to National Park		Gender		Total
		Female	Male	
Every day	Frequency	1	7	8
	Percent	0,4%	2,8%	3,2%
Once in a few days	Frequency	4	6	10
	Percent	1,6%	2,4%	4,0%
Once a week	Frequency	2	3	5
	Percent	0,8%	1,2%	2,0%
Once in a month	Frequency	9	16	25
	Percent	3,6%	6,4%	10,0%
Once in a few months	Frequency	0	2	2
	Percent	0,0%	0,8%	0,8%
Once in a year	Frequency	6	0	6
	Percent	2,4%	0,0%	2,4%
Several times a year	Frequency	77	96	173
	Percent	30,8%	38,4%	69,2%
Once in a few years	Frequency	4	8	12
	Percent	1,6%	3,2%	4,8%
Several times	Frequency	1	0	1
	Percent	0,4%	0,0%	0,4%
When I came to Isparta	Frequency	2	0	2
	Percent	0,8%	0,0%	0,8%
Just once	Frequency	3	3	6
	Percent	1,2%	1,2%	2,4%
Total	Frequency	109	141	250
	Percent	43,6%	56,4%	100,0%

3.2.2. Preferred days, seasons and time interval to go to the national park

The most preferred options of the participants were weekend (47.5%) and no difference (34.9%) options (Table 3).

Table 3. Preferred days to visit the national park

Preferred days to visit the Kovada Lake National Park		Gender		Total
		Female	Male	
Weekend	Frequency	53	68	121
	Percent	20,8%	26,7%	47,5%
Weekdays	Frequency	10	10	20
	Percent	3,9%	3,9%	7,8%
Public holiday	Frequency	8	17	25
	Percent	3,1%	6,7%	9,8%
No difference	Frequency	41	48	89
	Percent	16,1%	18,8%	34,9%
Total	Frequency	112	143	255
	Percent	43,9%	56,1%	100,0%

The most preferred seasons of the participants are autumn (35.5%) and summer (33.9%) (Table 4).

Table 4. Preferred seasons to go to the national park

Preferred seasons to go to the Kovada Lake National Park		Gender		Total
		Female	Male	
Spring	Frequency	33	51	84
	Percent	10,9%	16,8%	27,6%
Summer	Frequency	40	63	103
	Percent	13,2%	20,7%	33,9%
Autumn	Frequency	54	54	108
	Percent	17,8%	17,8%	35,5%
Winter	Frequency	5	4	9
	Percent	1,6%	1,3%	3,0%
Total	Frequency	132	172	304
	Percent	43,4%	56,6%	100,0%

The most preferred time period for participants to go to the national park is the afternoon (54.8%) (Table 5).

Table 5. Preferred time interval to go to the national park

Preferred time interval to g oto Kovada Lake National Park		Gender		Total
		Female	Male	
Before midday	Frequency	34	34	68
	Percent	13,1%	13,1%	26,3%
Afternoon	Frequency	61	81	142
	Percent	23,6%	31,3%	54,8%
Towards evening	Frequency	19	30	49
	Percent	7,3%	11,6%	18,9%
Total	Frequency	114	145	259
	Percent	44,0%	56,0%	100,0%

3.2.3. Duration of stay in the national park

The maximum duration of stay of the participants in the national park is 1-3 hours (50.4%) and 4-6 hours (39.2%) Table 6).

Table 6. Duration of stay in national park

Duration of stay in national park		Gender		Total
		Female	Male	
1-3 hours	Frequency	51	75	126
	Percent	20,4%	30,0%	50,4%
4-6 hours	Frequency	47	51	98
	Percent	18,8%	20,4%	39,2%
7-9 hours	Frequency	9	8	17
	Percent	3,6%	3,2%	6,8%
9 hours and more	Frequency	2	7	9
	Percent	0,8%	2,8%	3,6%
Total	Frequency	109	141	250
	Percent	43,6%	56,4%	100,0%

3.3. Perceptions and Attitudes Towards The National Park

3.3.1. Reasons for coming to Kovada Lake National Park

It was determined that the most common reasons why the participants came to the national park were to be in touch with nature (20.3%), to relax (12.4%) and to take a walk (12.2%) (Table 7).

Table 7. Reasons for coming to Kovada Lake National Park

Reasons for coming to Kovada Lake National Park		Gender		Total
		Female	Male	
To relax	Frequency	33	26	59
	Percent	7,0%	5,5%	12,4%
To enjoy	Frequency	19	21	40
	Percent	4,0%	4,4%	8,4%
Have a picnic	Frequency	26	24	50
	Percent	5,5%	5,1%	10,5%
To do sport	Frequency	6	9	15
	Percent	1,3%	1,9%	3,2%
Being in touch with nature	Frequency	40	56	96
	Percent	8,4%	11,8%	20,3%
Getting to know the region	Frequency	16	30	46
	Percent	3,4%	6,3%	9,7%
Take a walk	Frequency	27	31	58
	Percent	5,7%	6,5%	12,2%
To take photos	Frequency	23	24	47
	Percent	4,9%	5,1%	9,9%
Educational purposes	Frequency	18	18	36
	Percent	3,8%	3,8%	7,6%
Viewing the landscape	Frequency	11	15	26
	Percent	2,3%	3,2%	5,5%
Other (Observation of bird etc.)	Frequency	0	1	1
	Percent	0,0%	0,2%	0,2%
Total	Frequency	219	255	474
	Percent	46,2%	53,8%	100,0%

When looking at the reasons why visitors come to national parks in previous studies, it was determined that Tolunay et al. (2004) they came for the most picnic (85%); Karakaya (2019) have a picnic (68.2%); Kılıç (2020) landscape/landscape viewing (21.9%); Akten (2009) have a picnic (30%) and to relax (24%) purposes.

While the visitors coming for picnic purposes were ranked first in previous studies, it seems to be less preferred in this study. There were differences in the preferences of the participants. The biggest reason for this is that in recent years, desiring to experience natural beauties and find peace has increased in recent years, depending on the public's level of awareness. In addition, the idea of picnic activities in national parks causing forest fires and environmental pollution has become widespread among the public.

3.3.2. The preferred characteristics of Kovada Lake National Park

Among the most preferred features of the national park, the most popular ones are its calm and peaceful environment (27.9%), lake (26.0%) and landscape beauty (23.1%) (Table 8).

Table 8. Preferred characteristics of the national park

Preferred Characteristics of Kovada Lake National Park		Gender		Total
		Female	Male	
Landscape (Beauty of the landscape)	Frequency	61	61	122
	Percent	11,6%	11,6%	23,1%
Calm and peaceful environment	Frequency	67	80	147
	Percent	12,7%	15,2%	27,9%
Flora	Frequency	34	43	77
	Percent	6,5%	8,2%	14,6%
Its specific climate	Frequency	22	22	44
	Percent	4,2%	4,2%	8,3%
Lake	Frequency	63	74	137
	Percent	12,0%	14,0%	26,0%
Total	Frequency	247	280	527
	Percent	46,9%	53,1%	100,0%

3.3.3. Activities in the national park

The most common activities that participants do in the national park are nature and environmental trips (29.1%) and to relax (21.2%) (Table 9).

Table 9. Activities carried out in the national park

Activities in the national park		Gender		Total
		Female	Male	
Nature and environmental trips	Frequency	82	103	185
	Percent	12,9%	16,2%	29,1%
To relax	Frequency	62	73	135
	Percent	9,7%	11,5%	21,2%
Have a picnic	Frequency	47	58	105
	Percent	7,4%	9,1%	16,5%
Have a chat	Frequency	23	22	45
	Percent	3,6%	3,5%	7,1%
To do sport	Frequency	12	26	38
	Percent	1,9%	4,1%	6,0%
To take photos	Frequency	56	49	105
	Percent	8,8%	7,7%	16,5%
Listen to music	Frequency	7	6	13
	Percent	1,1%	0,9%	2,0%
Reading to book etc.	Frequency	6	4	10
	Percent	0,9%	0,6%	1,6%
Total	Frequency	109	141	250
	Percent	43,6%	56,4%	100,0%

In the activities that visitors do during their time in the national park; Karakaya (2019) defined as that visitors mostly come for recreational purposes (picnics, sightseeing) with a rate of 68.2%; Gül et al. (2006) defined as that visitors mostly come to the national park for picnics (39.7%), being in touch with nature (27.4%) and resting (5.1%), According to Kervankıran and Eryılmaz (2016), exploring nature and trekking; Akten (2009) defined that visitors engage in activities such as eating (21%), resting (19%), nature and environmental trips (15%), taking photographs (8%), and doing sports (3%).

In a research conducted in the national parks in our country, the density levels of recreational areas were examined and it was determined that 75.9% of the picnic areas were used intensively (Çoban, 2016).

3.3.4. Services and facilities that visitors see as missing in the national park

Services and facilities that visitors see as missing in the national park the most common are car parking areas (16.1%), picnic areas (12.3%), WC (11.4%) and children's playgrounds (10.8%) (Table 10).

Table 10. Services and facilities that are missing for visitors in the national park

Services and facilities that are missing for visitors in the national park		Gender		Total
		Female	Male	
Picnic areas	Frequency	45	43	88
	Percent	6,3%	6,0%	12,3%
Shopping units	Frequency	28	39	67
	Percent	3,9%	5,5%	9,4%
WC	Frequency	43	38	81
	Percent	6,0%	5,3%	11,4%
Children's playgrounds	Frequency	34	43	77
	Percent	4,8%	6,0%	10,8%
Campsites	Frequency	23	36	59
	Percent	3,2%	5,0%	8,3%
Water fountain	Frequency	21	27	48
	Percent	2,9%	3,8%	6,7%
Sports fields	Frequency	12	38	50
	Percent	1,7%	5,3%	7,0%
Lack of information boards	Frequency	30	34	64

	Percent	4,2%	4,8%	9,0%
Areas of car parking	Frequency	50	65	115
	Percent	7,0%	9,1%	16,1%
Administration building	Frequency	4	4	8
	Percent	0,6%	0,6%	1,1%
Trash bins	Frequency	35	21	56
	Percent	4,9%	2,9%	7,9%
Total	Frequency	325	388	713
	Percent	45,6%	54,4%	100,0%

When the studies are examined; similar results were encountered to the results of our study. Lack of social equipment elements in protected areas (information and direction signs, children's playgrounds and equipment, sports fields, garbage bins, WC, fountains, etc.) inadequate information service/consultation, and security deficiencies have been identified. (Düzgüneş, 2015; Yıldız, 2019; Kılıç, 2020; Akten, 2009; Gül et al., 2006).

3.3.5. Reasons affecting a long stay in a national park

The most common reasons why visitors not stay in the national park for a long time are; they indicated that inadequacy of time (20.4%), difficulty in transportation (15.1%), inadequacy of lighting elements (13.4%), inadequacy of buffets etc. (13.4%) and weather conditions (11.1%) (Table 11).

Table 11. Reasons affecting a long stay in a national park

Reasons affecting a long stay in a national park		**Gender**		**Total**
		Female	**Male**	
Transportation difficulty	Frequency	45	41	86
	Percent	7,9%	7,2%	15,1%
Weather conditions	Frequency	35	28	63
	Percent	6,2%	4,9%	11,1%
The crowd	Frequency	14	21	35
	Percent	2,5%	3,7%	6,2%
Being uncomfortable with those around	Frequency	6	13	19
	Percent	1,1%	2,3%	3,3%
The area is not safe	Frequency	8	11	19
	Percent	1,4%	1,9%	3,3%
Inadequacy of lighting elements	Frequency	30	46	76
	Percent	5,3%	8,1%	13,4%
Inadequacy of buffet etc.	Frequency	29	47	76
	Percent	5,1%	8,3%	13,4%
Inadequacy of time	Frequency	54	62	116
	Percent	9,5%	10,9%	20,4%
Not finding what you expected	Frequency	15	30	45
	Percent	2,6%	5,3%	7,9%
Uninhabited	Frequency	15	18	33
	Percent	2,6%	3,2%	5,8%
Total	Frequency	251	317	568
	Percent	44,2%	55,8%	100,0%

3.3.6. Thoughts regarding the functions in the national park

It was determined that the average of the values given by the participants to most of the expressions was under 2.5. These values under the 2.5 mean show that the participants agree with these expressions and consider them important. "Horseback riding routes should be created" (2,72) expression has the least value by the participants.

Table 12. Thoughts regarding the functions in the national park

Thoughts regarding the functions in the national park	Gender						Total		
	Female			Male					
	Mean	Std. Deviation	Var.	Mean	Std. Deviation	Var.	Mean	Std. Deviation	Var
Social facilities (buffets, restaurants, etc.) are inadequate.	1,9450	1,11251	1,238	1,9716	1,09508	1,199	1,9600	1,10057	1,211
The units in the picnic areas are inadequate.	1,9541	1,01275	1,026	2,1489	1,09503	1,199	2,0640	1,06227	1,128
Children's play areas and equipment are inadequate.	1,9450	1,06140	1,127	2,0780	1,02867	1,058	2,0200	1,04305	1,088
Trekking areas are irregular.	2,3303	1,13900	1,297	2,4043	1,16483	1,357	2,3720	1,15192	1,327
There are no activities related to sports fields.	2,0734	1,10308	1,217	2,0000	1,07571	1,157	2,0320	1,08614	1,180
There should be water sports (angling, pedal boating, etc).	2,3303	1,22516	1,501	2,4255	1,31058	1,718	2,3840	1,27241	1,619
Landscape viewing areas should be created.	1,7890	1,00989	1,020	2,0142	1,08881	1,186	1,9160	1,05898	1,121
Camping areas (with tents and caravans) should be created.	1,8807	1,00669	1,013	2,0780	1,14686	1,315	1,9920	1,09027	1,189
Educational activities related to nature should be organized.	1,5963	,73433	,539	1,8156	,98273	,966	1,7200	,88812	,789
Horseback riding routes should be created.	2,6881	1,38576	1,920	2,7589	1,30877	1,713	2,7280	1,34060	1,797

"Educational activities related to nature should be organized" the expression (1,72) has received the highest value by the participants. This is followed by the following preferences respectively;

- ✓ "Landscape viewing areas should be created." (1,91)
- ✓ "Social facilities (buffets, restaurants, etc.) are inadequate." (1,96)
- ✓ "Camping areas (with tents and caravans) should be created" (1,99)
- ✓ "Children's play areas and equipment are inadequate." (2,02)
- ✓ "There are no activities related to sports fields." (2,03)
- ✓ "The units in the picnic areas are inadequate." (2,06)
- ✓ "Trekking areas are irregular." (2,37)
- ✓ "There should be water sports (angling, pedal boating, etc.)."(2,38) (Table 12).

In the research carried out; It has been determined that children's playgrounds, recreation and excursion areas, sports areas, picnic areas and landscape viewing areas are inadequate in protected natural areas for visitors. (Alkan & Korkmaz, 2009; Düzgüneş, 2015; Gül et al. 2006, Akten, 2009). When compared to our study, similar results were observed. In addition, Alkan & Korkmaz (2009) defined in their study conducted in the same area that the people living in Isparta could not visit protected areas due to limited recreational activities, and that the visitors had to be content with just nature walks. It has been defined that it is possible to do angling in Kovada Lake, but this activity is prohibited. Managers associate the reason for not increasing the variety of recreational activities and not being able to establish facilities with the incompleteness of the area plans.

It has been determined that informative and promotional slide shows, voice-overs and promotional signs carried out by the park management in New York State Park and Rocky Mountains National Park are effective in increasing the awareness of visitors and their attitudes towards natural resources. It has been determined that visitor information activities are effective in reducing ecological and social impacts. (Manfredo, 1992; Cable et al. 1987).

3.3.7. Promotion, information, education, etc. of the national park management adequacy status of activities

"Is the national park management adequate in the promotion, information and education activities of the visitors"? it was determined that the most 38.4% of them gave the answer "not enough" to the question. (Table 13).

Table 13. Promotion, information, education, etc. of the national park management adequacy status of activities

Is the national park management adequate in information, promotion and training activities?		Gender		Total
		Female	Male	
Very Enough	Frequency	2	6	8
	Percent	0,8%	2,4%	3,2%
Enough	Frequency	11	17	28
	Percent	4,4%	6,8%	11,2%
Normal	Frequency	36	44	80
	Percent	14,4%	17,6%	32,0%
Not enough	Frequency	41	55	96
	Percent	16,4%	22,0%	38,4%
Never Enough	Frequency	19	19	38
	Percent	7,6%	7,6%	15,2%
Total	Frequency	109	141	250
	Percent	43,6%	56,4%	100,0%

In previous studies; It has been determined that the promotion and information activities of the national park management are inadequate. (promotion, information signs, services and facilities offered to visitors, parking, etc.) (Öztura, 2010; Düzgüneş, 2015; Yıldız, 2019; Kılıç; 2020; Akten, 2009).

Çoban (2016) asked the national park management whether slide shows were made for informative purposes to visitors. 48.7% of the national park management defined that this application was necessary but they did not implement it, 28.2% defined that they implemented it, and 23.1% defined that there was no need to implement it.

The reason why visitors find the national park management inadequate in promotional and informative activities is that internet promotions are inadequate, there are no activities for young people in the area, and education for national parks is not provided in schools. In order to create awareness about nature, public participation should be ensured by organizing activities such as promotions, exhibitions, brochures, tours and nature schools at visitor centers (Atik, 2005).

3.3.8. Materials that should be included in the national park for informational purposes

Visitors most preferred the materials "Map showing places to visit" (30.4%) and "Introductory signs on travel routes" (29.6%) (Table 14).

Table 14. Materials required in the national park

Which materials should be in the national park for informational purposes?		Gender		Total
		Female	Male	
Brochure / CD introducing the area	Frequency	43	54	97
	Percent	8,9%	11,2%	20,1%
A map showing places to visit	Frequency	65	82	147
	Percent	13,5%	17,0%	30,4%
Introductory signs on travel routes	Frequency	65	78	143
	Percent	13,5%	16,1%	29,6%
Lists of plants and animals	Frequency	34	23	57
	Percent	7,0%	4,8%	11,8%
Lists of birds	Frequency	14	25	39
	Percent	2,9%	5,2%	8,1%
Total	Frequency	221	262	483
	Percent	45,8%	54,2%	100,0%

3.3.9. Institutions and organizations that should take an active role in increasing visitor satisfaction in the national park

55.5% of the visitors think that the most important institution and organization that should take an active role in order to increase visitor satisfaction in the national park is the national park directorate (Table 15).

Table 15. Institutions and organizations that should take an active role in increasing visitor satisfaction in the national park

Institutions and organizations that should take an active role in increasing visitor satisfaction in the national park		Gender		Total
		Female	Male	
National park directorate	Frequency	99	108	207
	Percent	26,5%	29,0%	55,5%
Cooperatives	Frequency	16	18	34
	Percent	4,3%	4,8%	9,1%
Local tourism businesses	Frequency	30	40	70
	Percent	8,0%	10,7%	18,8%
District governorship	Frequency	24	38	62
	Percent	6,4%	10,2%	16,6%
Total	Frequency	169	204	373
	Percent	45,3%	54,7%	100,0%

In the study of Yıldız (2019), similarities were found in the direction that the national park management and district governorships should be more active in increasing visitor satisfaction. Additionally, Yıldız (2019) attracted attention that the media and local governments should also make efforts.

3.3.10. The state of meeting the expectations of the visit

The satisfaction levels of the visitors to the area were determined as; 56.0% “Met my expectations”, 39.6% “Below my expectations” and 4.4% “Above my expectations” (Table 16).

Table 16. The state of meeting the expectations of the visit

The state of meeting the expectations of the visit		Gender		Total
		Female	Male	
It was above my expectations	Frequency	4	7	11
	Percent	1,6%	2,8%	4,4%
It met my expectations	Frequency	64	76	140
	Percent	25,6%	30,4%	56,0%
It was below my expectations	Frequency	41	58	99
	Percent	16,4%	23,2%	39,6%
Total	Frequency	109	141	250
	Percent	43,6%	56,4%	100,0%

3.4. Differences Of Opinion According To The Educational Levels of The Visitors' Thoughts About The Functions İn The National Park

According to the results of the Kruskal-Wallis H test conducted according to the educational level of the participants;

- "The units in picnic areas are inadequate (tables, etc.)." (p =0,023<0,05).
- "Children's playgrounds and equipment are inadequate." (p =0,010<0,05) .
- "Trekking areas are irregular." (p =0,043<0,05) There were differences in terms of educational status at 0.05 significance levels in the expressions (Table 17).

Table 17. Differences of the functions in the national park according to the educational level

	Educational Level	N	Mean Rank	Kruskal-Wallis H	df	Asymp Sig.(P)
Social facilities are inadequate..	Literate	4	116,25	9,118	5	,104
	Primary Degree	27	105,48			
	High School Degree	60	118,17			
	Associate Degree	28	114,84			
	Bachelor's Degree	85	128,72			
	Postgraduate Degree	46	148,15			
	Total	250				
The units in picnic areas are inadequate (tables, etc.)	Literate	4	112,75	13,069	5	**,023***
	Primary Degree	27	96,89			
	High School Degree	60	121,27			
	Associate Degree	28	102,18			
	Bachelor's Degree	85	139,11			
	Postgraduate Degree	46	137,98			
	Total	250				
Children's playgrounds and equipment are inadequate.	Literate	4	94,00	15,168	5	**,010***
	Primary Degree	27	97,26			
	High School Degree	60	129,41			
	Associate Degree	28	95,55			
	Bachelor's Degree	85	133,44			
	Postgraduate Degree	46	143,27			
	Total	250				
Trekking areas are irregular.	Literate	4	122,50	11,480	5	**,043***
	Primary Degree	27	102,09			
	High School Degree	60	127,24			
	Associate Degree	28	96,57			
	Bachelor's Degree	85	139,72			
	Postgraduate Degree	46	128,57			
	Total	250				
There are no activities for sports fields.	Literate	4	116,88	9,182	5	,102
	Primary Degree	27	93,39			
	High School Degree	60	121,29			
	Associate Degree	28	119,93			
	Bachelor's Degree	85	135,95			
	Postgraduate Degree	46	134,67			
	Total	250				
There should be water sports (angling, pedal boating, etc.).	Literate	4	144,50	2,531	5	,772
	Primary Degree	27	114,04			
	High School Degree	60	128,93			
	Associate Degree	28	114,34			
	Bachelor's Degree	85	131,19			
	Postgraduate Degree	46	122,38			
	Total	250				
Landscape viewing areas should be created.	Literate	4	128,50	5,097	5	,404
	Primary Degree	27	116,04			
	High School Degree	60	138,73			
	Associate Degree	28	106,71			
	Bachelor's Degree	85	123,97			

	Postgraduate Degree	46	127,80			
	Total	250				
Camping areas (with tents and caravans) should be created.	Literate	4	153,00	4,005	5	,549
	Primary Degree	27	105,15			
	High School Degree	60	133,82			
	Associate Degree	28	123,64			
	Bachelor's Degree	85	126,12			
	Postgraduate Degree	46	124,20			
	Total	250				
Educational activities related to nature should be organized.	Literate	4	115,50	3,996	5	,550
	Primary Degree	27	128,94			
	High School Degree	60	138,09			
	Associate Degree	28	115,68			
	Bachelor's Degree	85	124,49			
	Postgraduate Degree	46	115,76			
	Total	250				
Horseback riding routes should be created.	Literate	4	130,63	5,320	5	,378
	Primary Degree	27	110,17			
	High School Degree	60	131,50			
	Associate Degree	28	103,86			
	Bachelor's Degree	85	132,98			
	Postgraduate Degree	46	125,58			
	Total	250				

**** P<0,05***

When the average ranks were examined to determine the differences in opinion, differences were observed in terms of educational status. Located in the indicator;

- "The units in picnic areas are inadequate." to the expression, It has been seen that individuals of all educational levels agreed with the expression. There were differences between individuals with primary education, associate degree, literate education and individuals with bachelor's degree and postgraduate degree education. Individuals with primary education, associate degree and literate education level are more likely to agree with the opinion that picnic units are inadequate. The reason for this difference is that people other than individuals with bachelor's degree and postgraduate degree education come to the national park for the purpose of having a picnic.
- "Children's playgrounds and equipment are inadequate." to the expression, It has been seen that individuals with all educational levels agreed with the expression. Differences were observed between individuals who were literate, had an associate degree, primary education, and individuals with bachelor's degree and postgraduate degree education. Individuals who are literate and have an associate degree and primary education level are more likely to agree with the opinion that children's playgrounds and equipment are inadequate. The reason for this is that individuals who are literate, have an associate degree and primary education level, see the national park as a place to spend time with their children.
- "Trekking areas are irregular." to the expression, It has been seen that individuals with all educational levels agreed with the expression. It is seen that individuals with associate degree education need more trekking areas than individuals with other education levels.

4. Conclusion and Suggestions

These areas, which have been declared national parks for their nature protection purposes and various natural-cultural values, provide opportunities for tourism / recreational activities. While the tourism and recreational activities offered provide economic benefits, the increasing number of visitors and demands are causing pressure on natural resources. After the recreational activities of the visitors;

pollution on the area, damaging the flora, disturbing the fauna, forest fire caused by carelessness after a picnic, compaction of the topsoil, etc. negative effects are observed.

Failure to control recreational uses and being insensitive in this direction negatively affect the values of natural and cultural resources. Although the balance between protection and use is emphasized in theory, it is seen in many examples that this balance is not be achieved in practice.

The management plans of Canada, America, Australia and European countries include *the management of natural resources* supported by scientific research (the status of the resources of the park, the importance of the area, the recreational activities carried out, the requests of the visitors, the orientation of the visitors on the area, visitor satisfaction, determination of priorities in management), *management plan, zoning, strategies, monitoring, reporting and evaluation processes*. In Turkey, there are long-term development plans in response to the management plans of these countries.

In his study examining Long-Term Development Plans, Cırık (2007) emphasized that the national park management described the Long-Term Development Plans as an inventory study, that they were not used actively, and that there were problems in the applicability of the plans.

The management plans included in the Long-Term Development Plan of Kovada Lake National Park, which creates the main material of our study, have been examined by considering the balance of protection and use in visitor management plans.

With the survey carried out in the area; some personal characteristics of visitors (gender, age, educational status, occupation, income status, residence), reasons for coming to the national park, area usage preferences, recreational activities in the park, missing services and facilities , situations that prevent spending time in the area for a long time, institutions and organizations that should play a role in increasing visitor satisfaction, whether information activities in the area are sufficient and the materials that should be available, determining the opinions about the functions in the national park, and identifying differences or similarities of thoughts in this context, solutions and suggestions can be developed.

As a result of the preferences of the participants, it is understood that the national park management is inadequate in information, promotion and educational activities. In the study we have conducted, it has been determined that there are no educational activities related to nature. In order to meet the demands of visitors in this direction the protection of natural and cultural resources, the activities carried out, the feature of being a national park (endemic species, historical aspect, etc.) computer-aided information systems on topics such as, informative visual materials (brochures, audio and visual messages, animated videos, etc.), should be prepared. In terms of the definition of the area, there should be a consultation/information unit and activities should be created here at certain times to raise awareness, especially for children.

Alkan & Korkmaz (2009) defined that the lake is the most important resource value of Kovada Lake National Park in their studies where they evaluated the national parks of Isparta province. They also determined that the most damaged resource in the national park was the lake and that the protection activity for this situation consisted only of a hunting ban. They also emphasized that the wastes coming from the Kovada Canal continues to pollute the lake.

In the studies carried out; It has been determined that visitor activities damage vegetation and wildlife, pollute the environment and cause loss of biodiversity. (Özvan, 2020; Çoban, 2016; Düzgüneş, 2015; Yıldız, 2019; Albayrak, 2010; Akten, 2009; Kılıç, 2020).

As a result of the activities of visitors in camping areas in America's Isle Royale National Park, there has been a decrease in the vegetation on the soil surface. Studies have been carried out to reduce these effects. As a result of this study, it was defend that taking into consideration the size of the area, it is necessary to limit the size of the group in accordance with ecological and social carrying capacities (Marion & Farrell, 2002).

The visitor density in Huangshan National Park, known as Yellow Mountain in China, at certain periods has caused a decrease in visitor satisfaction. Studies have been carried out to reduce the density of visitors in the national park. In order to ensure the equal distribution of visitors to the national park in terms of time and space within the borders of the national park, to carry out information and educational activities, to make differences in price applications, etc. with various methods, it has been tried to reduce the density in the national park. This has also ensured to increased in visitor satisfaction (Yang & Zhuang, 2006).

There is a need to limit the number of visitors in protected areas during periods when the number of visitors is high. Visitor management tools should be used for limitation work. In addition to reducing the density of visitors, limitation provides benefits in protecting and ensuring the sustainability of natural and cultural resources and increasing the quality of visitor experience (Yang & Zhuang, 2006).

Our recommendations regarding the findings obtained as a result of the survey are;

- Ecotourism activities carried out uncontrollably without a specific plan threaten the values of natural and cultural resources, causing irreparable damage and subsequent depletion. In order to ensure sustainability, the requests and demands of visitors should be included in planning and management decisions.
- Long Term Development Plans of the national parks in our country have been made. However, in the Long-Term Development Plans of most national parks, there are no visitor management, strategies, management tools and recreational carrying capacity analyses. There is a visitor management plan in Kure Mountains National Park, Sultan Sazlığı National Park, Ilgaz Mountain National Park. There is no visitor management plan in the Kovada Lake National Park Long-Term Development Plan. Adequate budgets should be allocated by the relevant ministries and directorates, recreational carrying capacity analyses should be carried out by forming teams from different disciplines, and visitor management plans should be created.
- Access to the parking area is difficult for those who do not have a private car. For this reason, public transportation facilities should be provided during certain periods when visits to the park increase (in summer and autumn months).
- Kovada Lake National Park has not been able to effectively evaluate the recreational potential it has. The presence of water and forest landscape in the park area is an opportunity for recreational activities. Visitors to come to the area can mostly make picnic and trekking activities. This situation affects the number of visitors and the quality of visitor experiences. Taking into consideration the potential situation of the area, recreational activities should be diversified (camping activities with tents and caravans, angling, mountaineering, mountain biking, etc.).
- The natural landscape values of the national park are the presence of forests and lakes. By taking advantage of the active topographic structure of the area, new travel routes and observation terraces should be built at the dominant points of the landscape beauty, in addition to the existing trekking and viewing areas.
- The walking path around the lake is made of wooden platforms and is suitable for use. But at a certain point, this platform ended. Other parts of the area are stony and it is difficult to walk. In the planning, designs should be made, especially considering the visits of disabled citizens to the area. The way to the observation terrace should also be arranged.
- There are no sports areas and recreational activities related to sports in the national park. Taking into consideration the requests of visitors, recreational activities should be included in accordance with the potential of the area.
- The caution signs showing the way to the walking path and the observation terrace are broken and not mounted on the ground. It has ensured to stand upright by placing stones around it.

It is in a situation where we can take it with hand and place it in a different point. In such a case, visitors may go to a different destination. Repairs should be made and made functional.

- It has been determined that some information boards in the area are empty. Appropriate visual materials should be prepared and placed on the boards.
- The zoning method should be used to determine the effects of recreational activities and to prevent the spread of these effects. The division of the park into zones in management decisions should be made by experts, taking into consideration ecological and biological factors.
- The lack of regular parking areas in the national park area causes irregular parking. As a result of irregular parking; effects such as reduce in visual quality, visual pollution, degradation of vegetation and soil compaction are observed. Visitors to come to the area expressed the problems they had with parking due to the lack of car parking areas. In order to eliminate these problems, regular car parking areas should be built.
- The lack of social equipment in the park area is among the requests and demands of visitors. Deficiencies in this regard should be eliminated.
- Educational activities related to nature should be organized and promotional activities should be carried out in order to raise the awareness and inform visitors about the use of the park. In the survey results, the requests of the visitors in this regard have in the first. For the promotion of the area; brochures, guidebooks, magazines, promotional publications, information signs, visual and audio messages, animated videos, websites should be prepared and updated at certain period of time. During the planned time periods, various activities and visual short cartoons should be prepared, especially about instilling a love of nature to children and nature protection.
- A consultation/information center should be established to promotion the park and to provide the requests and demands of visitors. In addition, request and complaint boxes should be installed to collect visitor opinions. This center should be responsible for enriching the area with information boards and caution signs, and updating the boards at certain periods. Solution-oriented service should be provided to the problems encountered by visitors. It should serve as a bridge in transferring visitor requests to management plans and studies.
- Intensive use of the lake surroundings, which reflects the characteristic feature of the park, increases pollution. Necessary measures should be taken to eliminate the factors causing pollution or reduce the effects.
- Recreational activities around the lake should be carried out considering the habitats of aquatic creatures and planned so that the living creatures are not affected.
- The picnic units in the wooded areas and around the lake are worn out due to long-term use or other reasons. In the field studies we have carried out, it has been seen that some units are broken and shaking. The use of these units is dangerous. Those that are unusable should be rebuilt, and those that need to be repaired should be repaired in a way that does not harm the natural structure and aesthetics of the park.
- Some of the plants in the park have been tagged in the area for promotional purposes. But there are inaccuracies in the Latin names of these tags. These should be fixed and the necessary repairs should be made to non-functional tags.
- It has been seen that the swings in the children's playground located at the entrance of the park were unbalanced and their chains were rusty. Additionally, only 2 swings are not enough for the area. The children's playground should be maintained and the area usage capacity should be determined and increased in number.

- When the distribution of existing uses is examined, it is seen that usage increases especially in autumn and summer months. In order to reduce the seasonal pressure on the area, the area should be planned in such a way that it can be used in all seasons.

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Author Contribution and Conflict of Interest Declaration Information

All authors contributed equally to the article contributed. There is no conflict of interest.

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