



AN INVESTIGATION OF THE ECOLOGY-BASED TOURISM POTENTIAL AND PLANNING APPROACHES IN HIGH PLATEAUS

 Pelin Özer¹,  Zeynep Pirselimoglu Batman^{2*}

¹Landscape Architecture, Yalova, Türkiye

²Bursa Uludağ University, Faculty of Agriculture, Department of Landscape Architecture, Bursa, Türkiye

* Corresponding Author:

zeynepbatman@uludag.edu.tr

(Received 17th February 2022; accepted 20th May 2022)

ABSTRACT. This study aims to reveal the ecology-based tourism potential of Erikli High Plateau in Yalova province and develop planning approaches. The material of the study was determined as Erikli High Plateau, which has significant touristic and recreational potential within the borders of Yalova. The method of study was carried out in 4 stages. The current situation of the area was presented. In the second stage, a user survey was conducted. In the third stage, SWOT analysis was carried out with both the data obtained from the questionnaires and the data obtained from the current field use. In the last stage of the study, the data obtained by SWOT analysis were evaluated on the Likert scale by the expert group. As a result of the expert evaluation conducted according to the survey data and the data of the SWOT analysis done with the available area data, the use of the area in four seasons has been the strongest data, while the pressures that will occur with intensive uses have been the most important threat.

Keywords: *Ecology-Based Tourism, High Plateau Tourism, SWOT, Planning, Ecological Planning*

INTRODUCTION

Ecology-based tourism movements have gained importance with the trend towards natural areas. The areas that attracted the most attention with these movements have been the virgin areas (mountains, plateaus, rural areas, etc.) that have been selected as targets for tourism. These areas where an intervention has not been made yet are the areas that remain attractive for tourists. From this perspective, the high plateaus draw attention as the attractive natural and cultural formations in terms of tourism with their unique natural beauties and microclimate and as the areas which are traditionally visited by local people in the summer months, especially for grazing their animals [1, 2, 3, 4]. Tourist demand is diversified and shaped by resources [5].

The intensive use of these areas, the carrying capacity, and the danger of exceeding its limits will prioritize balancing the relations between the elements of the eco-system and the cultural and historical environments in the prospective planning of tourism and recreational purposes [6]. Ecology-based tourism principles are important in the use of natural and cultural areas for tourism purposes, to prevent negative impact and pressure of the land uses, and also to prevent damage to the socio-culture and environment and to actualize the sustainability of the areas. In this context ecology-based tourism planning has emerged for tourism planning and will contribute to both economic development and environmental protection [3, 7, 8, 9].

Touristic and recreational uses that will be brought to protect the natural values of the areas and approaches for the acquisition of such areas for the protection-usage balance are provided by planning. The participation of local people and local administrations is also important in planning. In ecological planning, settlements should be in harmony with nature and aim to ensure, maintain, and improve the optimum balance between ecosystem elements and predict the protection-use balance of natural resources. [10,11,5,12,13,14,15,16, 17,18]. Touristic and

Method

By determining the existing area uses in the area, visitor survey work, SWOT analysis, and Likert scale, and expert survey studies were used as methods.

A method is created by examining the studies containing SWOT analysis and survey evaluations [3, 4, 16, 33, 39, 40, 41, 42, 43, 44, 45]. The method of study was carried out in four stages. In the first stage, data collection was carried out in the area to examine the natural and cultural values of Erikli High Plateau, which is one of the important potential areas, and the ecology-based tourism potential. The current state of the area was determined by collecting data about the Natural, Cultural and Historical values of the area. In the second stage, a 'Visitor Survey' was prepared for the users coming to Erikli High Plateau and their usage of the area, ecology-based tourism approaches, purposes, and activities of the area. The sample size of the survey studies was calculated by considering the population of Teşvikiye Town, which is 2000, in Çınarcık District in the province of Yalova, where the Erikli High Plateau is located [46, 47].

$n = N t^2 pq / d^2 (N-1) + t^2 pq$ in the formula, variables are given as follows:

N: number of individuals in the target audience

n: number of individuals to be included in the sample

p: frequency of the examined event (the possibility of occurring)

q: frequency of non-occurrence of the examined event (the possibility of not occurring)

t: theoretical value according to t-table at a certain significance level

d: sampling error which is accepted according to the frequency of the event.

Accordingly; $n = 2000 \times (1.96)^2 \times 0.20 \times 0.80 / (0.05)^2 \times (2000-1) + (1.96)^2 \times 0.20 \times 0.80 = 219$

Assuming that $p = 0.20$ and $q = 0.80$ with this formula, the minimum sample size was determined as 219 for Erikli High Plateau and 250 visitors were surveyed. The data obtained were evaluated with the SPSS22 package program [48]. In the third stage of the study, SWOT analysis, which enables the area to reveal the ecology-based tourism principles, was conducted. SWOT analysis is a management process [39]. SWOT analysis is also one of the most frequently used strategic methods [27]. SWOT analysis is used in planning processes to take into account and evaluate existing information that needs attention in the field. During the evaluation process with SWOT analysis, internal and external environmental factors of the system are investigated [49]. In the SWOT analysis, while evaluating the internal and external factors, the current status of the area and the data obtained from the survey conducted with the users of the area were used. In this process, users' expectations from the area, the touristic and recreational features of the area, and the demands of the users in terms of tourism and recreation, in general, were evaluated with the survey study. In the fourth stage of the study, the propositions, which reveal the strengths and weaknesses of the area, the opportunities it provides and the threats it poses that were determined with all these data, were asked to the group of 30 experts (6 Landscape Architects, 5 Urban and Regional Planners, 9 Agricultural Engineers, 2 Topographical Engineers, 1 Agricultural Technician, 3 Forest Engineers, 1 Geological Engineer, 1 Architect, 1 Landscape Technician, and 1 Geophysics Engineer) by using 5-point Likert scale. The propositions were rated according to their importance (First-Degree Important, Second-Degree Important, Third-Degree Important, Fourth-Degree Important, and Fifth-Degree Important). Value percentage ratios of the value points given to each proposition and the numbers obtained were determined for each criterion.

RESULTS

Natural and Cultural Resource Values

An examination of the slope condition of area district reveals that approximately 40% of the total area covers 30% and above sloping areas [50]. In the Erikli-Teşvikiye, in the understructure, there are Pamukova metamorphites, which are thought to be Precambrian-Lower Paleozoic aged. Also, there are Lower Triassic-Cretaceous aged Iznik metamorphites revealing less metamorphism [51]. Observation of the Erikli High Plateau exhibits the fact that forest soils in the region are lime-free brown. The soils are included in the 6th class soils that are suitable for grassland and forest in terms of land use but are not suitable for agriculture and they have the condition of use as forest and pastureland [52]. Yalova Province and its vicinity are not efficient in terms of groundwater [53] (Fig. 2). Known as the Dipsiz Lake is the region's only natural crater lake, which is located in the Erikli High Plateau [50]. Yalova province has Mediterranean Floristic Region characteristics and there are vegetation types in the southern and northern parts of moist-mild deciduous forests that differ depending on soil structure and climate conditions. [54]. In the regions where the maquis was destroyed, cistus were observed to be dominant [51]. Yalova Province has a macro-climate, but has the characteristics of a transition between the Mediterranean and the Black Sea climates. The coldest months are January and February and the hottest month is July [38].

The population of the province, which allows immigrants constantly, increases in the population census every year. The population of the province was determined as 251.203 in 2017 [38]. Yalova has an advantage with its proximity to central cities such as Istanbul, Bursa, and Kocaeli as a geographical location. Yalova is an intensive transit point for road and seaway passengers. From Yalova, all link roads to Erikli High Plateau, which is the research area, are asphalt roads [55]. The presence of commercial activities based on uncommon domestic tourism such as agriculture, animal husbandry, fishing, vineyard, and garden agriculture was determined as a result of the evaluations. There are economic activities in the surrounding district villages, namely olive production, fishery, forest products in some villages, and animal husbandry at the least [55]. The region, which attracts attention historical places also. In the center of the region, which is 10 km away from Erikli High Plateau, 25 buildings show examples of historical baths, bridges, fountains, and civil architecture. There is a 7-km-long ancient water system consisting of canals and arches [56]. While the plateau area is frequently used for camping apart from daily use, picnic, and hiking, there is no traditional transhumance activity in the area.



Fig. 2. *Some examples from the study area*

Findings on Recreational Activities, Preferences, and Requests of Erikli High Plateau Users

Evaluations of the survey conducted in Erikli High Plateau exhibit that 44.0% of the visitor profile consists of women and 56% men. The results also showed that the people who use the plateau area have the highest rate of 26.8% in the age range of 26-35 and high school graduates with a maximum rate of 35.6%. Another determination is that 19.2% of the users were civil servants and also 19.2% of the users were workers which both reveal the highest rates of professions. The average income level was found to be between TRY 2501-5000 with a rate of 23.6%.

Findings on the Usage Features of Erikli High Plateau Users on the Area

An examination of the usage characteristics of Erikli High Plateau users reveals that the way to reach the area is by private vehicle with 59.60%. The results also show that the frequency of coming to the area is very rare with 48.8% at most. While users prefer to come to the area with a maximum of 42.0% in autumn, they come in the winter season with a minimum of 7.6%. The users o came to the area mostly with family members with 42.0% and stated that they spent at most 1 day in the area with 73.2% .

Findings on the Utilization State of Erikli High Plateau Visitors in the Area

An evaluation of the usage status of the users of Erikli High Plateau and the survey results exhibit that the users, in general, would like to have the “Nature and Scenery Beauties” as their 1st place preferences, “Having a Picnic” in the 2nd and “Clean Air” as the third (Table 1).

Table 1. Area features that make Erikli High Plateau users prefer the area

	1. Preference	2. Preference	3.Preference
Meeting- Chat	16,5	4,4	10,4
Hiking (Inside the Village)	18,6	16,6	7,7
Having a Picnic	8,2	20,1	4,9
Nature and Scenery Beauties	22,7	8,3	6,6
Geographical And Topographical Formation (Gelogical Formations, Waterfalls, Caves, etc.)	3,4	8,7	3,
Rich In Historical Values	3,8	6,6	3,8
Vegetation and Wild Life	8,9	8,7	6,6
Easy Transport	8,6	5,2	12,6
Calmness and Quietness Area	5,2	15,3	14,2
Clean Air	4,1	6,1	29,5
Other	0,0	0,0	0,0

According to the results of the survey in terms of the general user preferences of the visitors in the area, there are "Waterfront Areas" in the 1st place, "Forest Areas" in the 2nd place, and "Thermal and Hot spring Areas" in the 3rd place (Table 2).

Table 2. General usage preferences of Erikli High Plateau users on the area

	1. Preference	2. Preference	3.Preference
Mountainous Areas	2,5	15,7	7,9
Waterfront Areas (Rivers, Lakes, Waterfalls..)	32,9	26,8	7,1
Historical and Cultural Identity Areas	11,6	32,3	11,8
Forest Side Areas and Forest Areas	9,3	34,6	40,2
Urban Open Space Area	10,1	19,7	7,9
Urban Indoor Spaces	4,7	10,2	18,1
Fields With Local Identity as Villages/High Plateaus/ Towns	4,7	28,3	26,8
Thermal and Hot Spring Areas	4,3	8,7	47,2
Other	0,0	0,0	9,4

Findings on the Recreational and Touristic Potential of Erikli High Plateau Users for the Area

According to user opinions, “Provides Economic Benefit” was preferred as the benefits of recreational activities on the field with a maximum of 41.6%. As the lowest rate, 12.8% of them stated: “Provides Information and Experience Exchange” (Fig. 3). An examination of the damages of recreational activities carried out in the field according to the opinions of the users reveals that 51.2% of them answered as “Deterioration of Natural Structure” with the highest rate (Fig. 4).

Considering the livelihoods in which Erikli High Plateau users contribute to the area and the local people in terms of recreation and tourism, “Olive cultivation” is preferred in the first place with a 34.6% portion. The second preference of the users is “beekeeping” with a rate of 24.2%. The third preference is “Eating and Drinking” with 22.3%. An evaluation of the festivals held in and around Erikli High Plateau from the points of view of users in recreational and touristic terms shows that “Delmece Festival” was the most preferred with the rate of 50.2%. As the second preference, the “Cranberry Festival” follows the “Delmece Festival” with a rate of 35.8%.

Findings on the Recreational and Touristic Satisfaction / Dissatisfaction Criteria of Erikli High Plateau Users

The survey evaluations of Erikli High Plateau reveal that the recreational and touristic deficiencies exhibit the “Lack of Accommodation Facilities” in the 1st place with a maximum of 34.2%, “Lack of Municipalities and the Relevant Municipal Services” in the 2nd place, and “The fact that this area is not adequately promoted” was preferred in the 3rd place with a ratio of 36.6% (Fig. 3.).

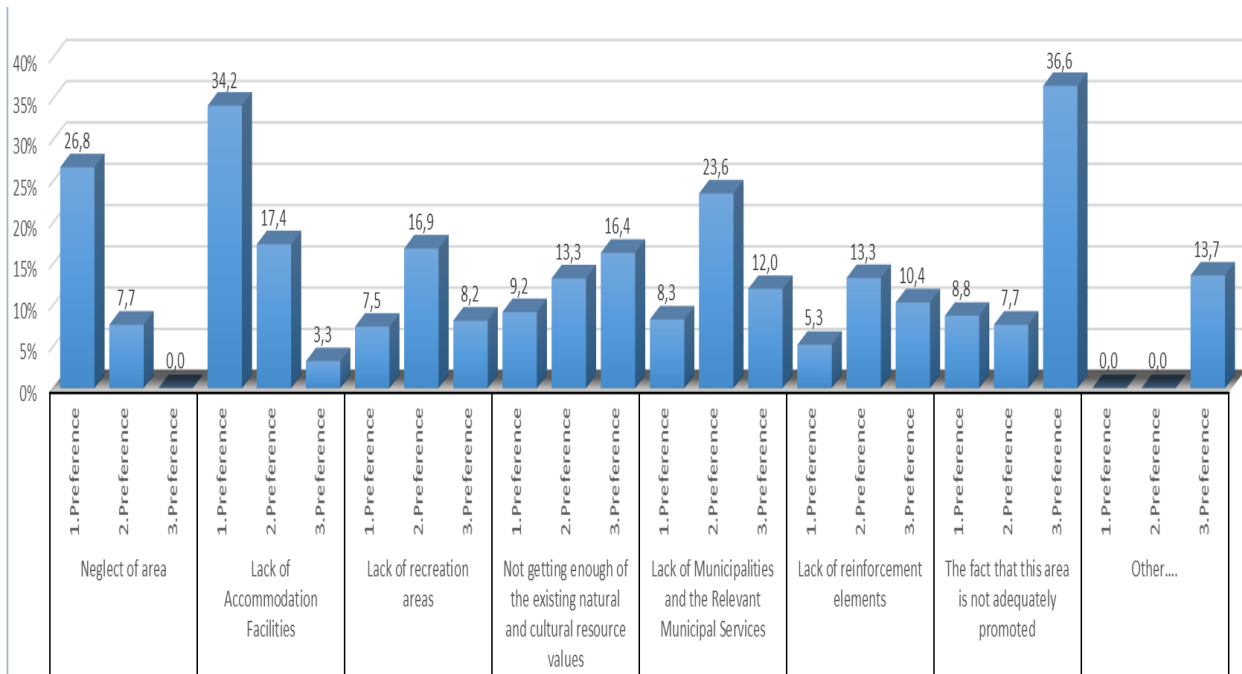


Fig. 3. Recreational and touristic shortcomings of Erikli High Plateau

The survey studies carried out in Erikli Plateau in terms of the recreational and touristic activity demands of the users also reveal in general that “Meeting-Chat” is preferred in the 1st place, while Hiking (inside the village), Cycling, and Picnic are preferred in the 2nd place and nature walks are preferred in the 3rd place (Table 3).

Table 3. Recreational and touristic activities in Erikli High Plateau

	1.Preference	2.Preference	3.Preference
Meeting- Chat	18,4	0,0	2,8
View of Scenery	7,5	2,6	2,8
Hiking (Inside the Village)	6,4	19,3	6,0
Cycling	6,4	19,3	2,9
Picnicking	13,5	19,3	6,0
Eating and Drinking	3,8	7,4	4,8
Spending time with Nature	17,7	11,5	6,4
Nature watching	1,1	6,3	2,4
Reading newspapers and books outdoors	1,1	2,2	4,0
Sporting activities	6,4	10,0	3,6
Nature walks/ hiking	1,5	2,2	25,7
Visiting museum, festival and exhibition	1,9	0,7	2,8
Photography	0,4	3,0	4,4
Botanical trips (recognition of plant species)	0,4	2,2	3,2
Scientific researches	0,0	2,6	3,2
Camping	0,4	4,1	17,7
Examining traditional life	0,0	0,7	4,4
Other	0,0	0,0	1,6

According to the surveys conducted, 55.6% of the users stated that the area did not meet their recreational expectations, while 44.4% stated that it fulfilled their recreational expectations. The surveys also show that the most demanded feature among the recreational features of the area is “Green areas with more regular maintenance” in the first place with a rate of 36.4%, “Security and accommodation” in the second place with 14.8%, and “transportation” in the third place with 18.5% (Table 4).

Table 4. Recreational and touristic activities in Erikli High Plateau

	1.Preference	2.Preference	3.Preference
Green areas with more regular maintenance	36,4	0,0	0,0
More eating and drinking facilities	15,5	7,8	0,0
Accommodation facilities	27,1	14,8	2,5
Adequate and qualified picnic areas	4,7	14,1	3,6
Safer areas (Guard, officers)	5,4	14,8	6,7
More regular children's playgrounds	0,0	10,9	16,0
Easier accessibility and alternative vehicle of transportation	1,6	7,0	18,5
Sports fields (Basketball, football etc.)	1,6	7,0	9,2
The area where natural plants and animals are introduced	4,7	4,7	8,4
A cleaner and well-kept environment	1,6	5,5	10,1
Adequate and qualified parking	1,6	6,3	10,1
Tent and caravan camping	0,0	7,0	14,3
Other	0,0	0,0	0,8

Another result of the survey study is about the activities and features recommended in terms of recreational and touristic areas. Accordingly, the presence of "Accommodation Areas" is demanded in the 1st place with 36.7%, the "Nature Walk Track" is in the 2nd place with 22.1%, and "Campgrounds" in the 3rd place with 37.7% (Fig. 4).

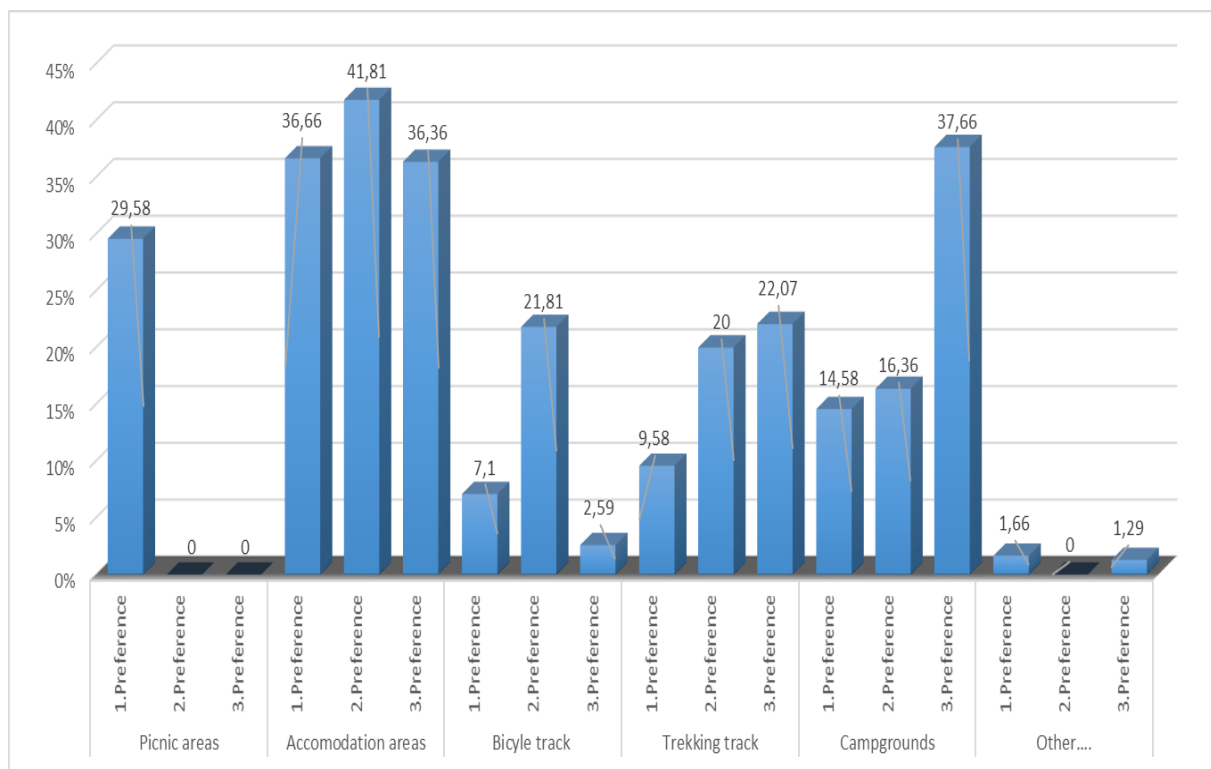


Fig.4. Suggestions about Recreational and touristic activities in Erikli High Plateau.

SWOT Analysis Findings

Strengths, Weaknesses, Opportunities, and Threats of the area were determined by evaluating the findings of the literature studies, observations, and surveys made to the visitors in the area. As a result of these determinations, the SWOT analysis of the area has been revealed (Table 5).

Table 5. The SWOT Analysis of Erikli High Plateau and its surroundings

STRENGTHS	WEAKNESSES
<p>*The area has natural vegetation and rich fauna;</p> <ul style="list-style-type: none"> • It is a forest-covered area consisting of pine, oak, chestnut and linden trees, • The presence of vascular plants and endemic species in the area, • Provides the opportunity to monitor mammal and bird species, • The area has plant species that can be damaged, • There are aquatic (<i>Carex</i>, <i>Ranunculus saniculifolius</i>) species in the region, <p>* The area has cultural resource values;</p> <ul style="list-style-type: none"> • The topographic structure has rich natural resources suitable for activities such as nature-based tourism (Trekking, Hiking, Camping, Cycling, etc...) and also enables many tourism activities. • Activities such as plateau festivals and Cranberry Festival held annually around Erikli High Plateau, 	<p>* The awareness of a plateau does not prevail adequately among local people and tourists,</p> <p>* Transportation to the area is not easy and comfortable by public vehicles; it is comfortable only by private vehicles,</p> <p>* Lack of recreation areas; lack of service units and infrastructure facilities in recreation areas;</p> <ul style="list-style-type: none"> • Walking-cycling trails, • Tent and caravan camping areas, • Game and sports fields, <p>* The visitors coming to the area cannot benefit adequately from the existing natural and cultural resource values;</p> <ul style="list-style-type: none"> • No units or signs where natural plants and animals are introduced • Lack of signs to introduce the area and to guide biodiversity and hiking trails,

<ul style="list-style-type: none"> • Local people are warm and hospitable, • Easy transportation • The proximity of the area to metropolitan cities (İstanbul- Bursa, Izmit...) • Although it has the status of a plateau in terms of its geographical location, it is close to living areas * The area has the opportunity to be visited and seen in four seasons, * Natural resources and an intact environment; • The area is considered a special habitat due to hygrophile (aquatic and hydrophilic plants) meadows and wetlands, • Housing and grazing are not allowed for wetland protection in the area, • Existence of protected areas around it; (Delmece High Plateau, Dipsiz Lakes, Çifte (Double) Waterfalls, Erikli Waterfall, City Forest), • Presence of natural (intact) areas and wildlife, *The area has economic resource values; • The presence of agricultural activities such as olive cultivation and beekeeping in the region, • Animal husbandry activities in the region 	<ul style="list-style-type: none"> • Lack of socio-economic resources due to the lack of tour organizations in the area. • Lack of route maps and information maps of the area • The superstructure of the region is not sufficient for tourism; • Accommodation such as hotels and pensions is not sufficient • A small number of seating areas, • No separate area for the parking lot, • Inadequate lighting, • No shopping units, • WC is insufficient, • No opportunity for promotions and sales of local products, crafts, dishes, etc. * Lack of introducing and guiding promotions for the vegetation, natural resource and cultural values of the area and its suitability for the existing recreational and tourism activities
<p>OPPORTUNITIES</p>	<p>THREATS</p>
<ul style="list-style-type: none"> * The Erikli High Plateau environment has a positive effect on the socio-cultural development of the plateau • Providing tourism potential with plateau festivals • Organizing cranberry festivals, • Having livelihoods in terms of olive cultivation, beekeeping, and local products * Sustainable and convenient natural resources whenever utilized through excursion trips organized by tourism agencies from both the city and around the city and also group trips organized by associations. * The region allows different touristic activities, • Routes that allow trekking and cycling tracks, • Superstructure suitable for camping • Providing photography opportunity, • Having a suitable ground for a picnic, * Visits for rural tourism and ecotourism improve the social structure of the local people and allow them to increase their social interaction, * Nature, which enables nature-based tourism types (Adventure, Camping, Caravan, Sports, Wildlife, Geotourism, Ecotourism, etc.), is suitable for the superstructure and areas; • Enabling tourism activities in all seasons • Having a topography that can handle tourism demands • Supporting the promotion of tourism activities in the area * Has the topography that will enable all infrastructure planning and realization * The increased demand for tourism based on natural resources in the world and Turkey, * Increasing demand of tourists for the area by promoting the current tourism supply in various ways, * Tourism opportunities to be applicable for 12 months, * While recreational activities may have damages such as deterioration of the natural structure but also provide economic benefits to the area. 	<ul style="list-style-type: none"> * The existing roads do not respond to the increasing demand and the roads leading up to the plateau are narrow and over-curved, * Lack of a planning approach in the area causes unconscious use * Increased environmental problems arising from the unconscious use of natural areas • Solid waste problems and environmental destruction in uncontrolled areas • No planning approach in the area • Disruption of the natural structure as a result of recreational activities * Intensive use of the area during the weekend holidays and the resulting pollution, deterioration, * Sea-oriented tourism understanding is established in the region

SWOT Analysis Expert Appraisal

In line with the data obtained according to the SWOT analysis studies conducted on Erikli HighPlateau and its surroundings, the expert survey for the area was evaluated separately for

each heading with the Likert evaluation scale, as a result of determining the Strengths, Weaknesses, Threats, and Opportunities.

The evaluation of the Strengths determined by the SWOT analysis as a result of the expert survey evaluations carried out in Erikli High Plateau reveals that the option of “The area has the opportunity to be visited and seen in four seasons” has the highest value 5th degree with the rate of 76.7%. An assessment of the options with the highest selected percentage exhibits that strengths are found to be among the preferences with an average value of 62.66% (Table 6).

Table 6. Expert survey – Strengths

STRENGTHS			I.	II.	III.	IV.	V.	Total
The area has natural vegetation and rich fauna;	%	3,3	3,3	0	33,3	60	100	
	N	1	1	0	10	18	30	
The area has cultural resource values;	%	0	3,3	6,7	20	70	100	
	N	0	1	2	6	21	30	
Natural resources and an intact environment;	%	0	3,3	6,7	26,7	63,3	100	
	N	0	1	2	8	19	30	
The area has the opportunity to be visited and seen in four seasons	%	3,33	3,33	0	16,7	76,7	100	
	N	1	1	0	5	23	30	
The area has economic resource values;	%	0	0	30	26,7	43,3	100	
	N	0	0	9	8	13	30	

As a result of the expert survey evaluations made in Erikli High Plateau and the evaluation of the Weaknesses determined by SWOT analysis with the Likert scale in itself reveal that the highest value with the 5th degree is the option “Lack of introducing and guiding promotions for the vegetation, natural resource and cultural values of the area and its suitability for the existing recreational and tourism activities” by 76.7%. An evaluation of the options with the highest selected percentage exhibits that Weaknesses are among the choices with an average value of 93.0% (Table 7).

Table 7. Expert survey – Weaknesses

WEAKNESSES			I.	II.	III.	IV.	V.	Total
The awareness of a high plateau does not prevail adequately among local people and tourists,	%	0	6,7	26,7	26,7	40	100	
	N	0	2	8	8	12	30	
Transportation to the area is not easy and comfortable by public vehicles; it is comfortable only by private vehicles,	%	0	3,3	6,7	16,7	73,3	100	
	N	0	1	2	5	22	30	
Lack of recreation areas; lack of service units and infrastructure facilities in recreation areas;	%	3	0	6,7	26,7	63,3	100	
	N	1	0	2	8	19	30	
The visitors coming to the area cannot benefit adequately from the existing natural and cultural resource values;	%	3	67	13,3	20	56,7	100	
	N	1	2	4	6	17	30	
Lack of introducing and guiding promotions for the vegetation, natural resource and cultural values of the area and its suitability for the existing recreational and tourism activities	%	40	73,3	63,3	56,7	76,7	100	
	N	0	2	0	5	23	30	

The evaluation of the Opportunities determined by SWOT analysis as a result of expert survey evaluations made in Erikli High Plateau with the Likert scale in itself exhibits that the option with the highest value was chosen with the 5th Degree as “The region allows different touristic activities” by 80.0%. When the options with the highest selected percentage are evaluated, the Opportunities are preferred among the preferences with an average value of 83.0% (Table 8).

Table 8. Expert survey – Opportunities

OPPORTUNITIES		I.	II.	III.	IV.	V.	Total
The Erikli High Plateau environment has a positive effect on the socio-cultural development of the plateau	%	0	3,3	10	36,7	50	100
	N	0	1	3	11	15	30
Sustainable and convenient natural resources whenever utilized through excursion trips organized by tourism agencies from both the city and around the city and also group trips organized by associations	%	3,3	6,7	3,3	20	66,7	100
	N	1	2	1	6	20	30
The region allows different touristic activities,	%	3,3	0	6,7	10	80	100
	N	1	0	2	3	24	30
Visits for rural tourism and ecotourism improve the social structure of the local people and allow them to increase their social interaction	%	3,3	3,3	6,7	33,3	53,3	100
	N	1	1	2	10	16	30
Nature, which enables nature-based tourism types (Adventure, Camping, Caravan, Sports, Wildlife, Geotourism, Ecotourism, etc.), is suitable for the superstructure and areas;	%	3,3	3,3	13,3	13,3	66,7	100
	N	1	1	4	4	20	30
Has the topography that will enable all infrastructure planning and realization	%	3,3	0	16,7	26,7	53,3	100
	N	3	0	2	5	20	30
The increased demand for tourism based on natural resources in the world and Turkey,	%	10	0	6,7	16,7	66,7	100
	N	2	0	3	6	19	30
Increasing demand of tourists for the area by promoting the current tourism supply in various ways	%	6,7	0	13,3	23,3	56,7	100
	N	2	0	4	7	17	30
Tourism opportunities to be applicable for 12 months,	%	6,7	0	10	20	63,3	100
	N	2	0	3	6	19	30
While recreational activities may have damages such as deterioration of the natural structure but also provide economic benefits to the area	%	3,3	0	20	23,3	53,	100
	N	1	0	6	7	16	30

The assessment of the threats determined by SWOT analysis as a result of expert survey evaluations made in Erikli High Plateau with the Likert scale in itself reveals that the option with the highest value was chosen as " Increased environmental problems arising from the unconscious use of natural areas " by 83.3%. When the options with the highest selected percentage are evaluated, the Threats are among the preferences with an average value of 97.0% (Table 9).

Table 9. Expert survey – Threats

THREATS		I.	II.	III.	IV.	V.	Total
The existing roads do not respond to the increasing demand and the roads leading up to the plateau are narrow and over-curved,	%	0	0	16,7	26,7	56,7	100
	N	0	0	5	81	17	30
Lack of a planning approach in the area causes unconscious use	%	0	3,3	0	33,3	63,3	100
	N	0	1	0	10	19	30
Increased environmental problems arising from the unconscious use of natural areas	%	3,3	0	3,3	10	83,3	100
	N	1	0	1	3	25	30
Intensive use of the area during the weekend holidays and the resulting pollution, deterioration,	%	6,7	0	6,7	16,7	70	100
	N	2	0	2	5	21	30
Sea-oriented tourism understanding is established in the region	%	6,7	0	20	23,3	50	100
	N	2	0	6	7	15	30

DISCUSSION AND CONCLUSION

Increasing labor force demands such as industrialization and industrial revolution has brought unplanned and unhealthy urbanization, transportation, and environmental problems from rural areas to cities. Irregular urbanization caused by urban disturbances and the rapid growth of the industrial area has caused physical, spiritual, and socio-cultural negative effects on people. People started to move towards nature away from the cities. However, the demand for recreational activities and tourism types is increasing and people need various types of tourism and recreational activities in more natural areas [57]. As a result of the changes in tourism policies and user requests and expectations, an orientation towards natural, rural, cultural, etc. areas, which was brought by the spread of tourism throughout the four seasons throughout the year, has started with subsequent ecology-based tourism activities which have become even more important.

One of the ecology-based tourism types that have become widespread in recent years is high plateau tourism. The facts that plateaus have a relatively less deteriorated natural structure creating a quieter and calmer environment and they do not lose their traditional life culture make plateaus more and more attractive day by day. Providing a natural environment with its natural and cultural structure and enabling many tourism activities (camping, trekking, nature observation, etc.) make the plateaus more preferred for recreational and touristic activities [58]. Sustainable ecology-based tourism development plans should be made by taking protective measures for the development of the plateaus depending on the purpose of use. Thus, together with the natural values of the high plateaus, the sustainability of the plateau tradition and high plateau life will be ensured.

The current natural and cultural values of the area and the current usage status were revealed in the first stage of this study conducted in Erikli High Plateau, which has significant high plateau tourism potential. While defining potential ecotourism areas, appropriate indicator factors are determined in the ecosystem. These factors can be classified as landscape, wildlife, topography, accessibility, social structure, etc. [59]. Also, researchers concluded that natural landscape features (geology, geomorphology, flora, and fauna, etc.) and cultural landscape features (population, culture, tradition, economic activities, etc.) of many tourism types in rural areas (agricultural tourism, natural tourism, farm tourism, etc.) have a significant effect on tourism [60].

Erikli High Plateau, located in the Teşvikiye Town of Çınarcık district of Yalova province and Armutlu Peninsula, on the northern skirts of Samanlı Mountains, is the second popular plateau after the Delmece High Plateau in the region. Erikli High Plateau, with its natural and cultural features, is a high plateau with significant potential in terms of many tourism types. Although the district has a mountainous land except for the eastern coastal plains, it is characteristic behind the mountain foot plains with its steep slopes that suddenly rise. The region, which has both the Black Sea and Mediterranean climates, has vegetation consisting of maquis and forests. Standing out for being rich in flora and fauna, Erikli High Plateau offers important tourism and recreation opportunities to visitors with its other natural and cultural features.

While determining the tourism potential of areas such as villages, plateaus, pastures, forests, etc., which have ecologically sensitive properties, the ecological values of the area, natural cultural resource values, tourist demands, and the expectations of the local people regarding the current tourism uses of the area should be revealed. In this regard, a tourism approach that respects the natural cultural resource values of the areas and responds to the tendencies and demands of the users should be adopted with a holistic approach [4, 6, 17]. Vesiten et al. (2015) also stated that in the sustainable development of tourism, visitor management based on visitor surveys should also be present [61]. In a similar study, Chaminuka et al. (2012) emphasized that the expectations and wishes of the tourists are

important while analyzing the development potential of ecotourism in rural areas [62]. It also contributes significantly to the development of the socio-economic structure of ecology-based tourism areas with its high natural and cultural resource value and tourist demands [36]. Demir et al (2016) emphasized that tourism activities conducted in ecologically sensitive areas are an important strategy. In their study, they stated that with these activities, not only natural and cultural values are preserved, but also the development of the socio-economic levels of the areas are supported [33].

Accordingly, in the second phase of the study, a survey study measuring the trends and demands of Erikli High Plateau users was applied. Within the scope of the survey, considering the socio-economic structure of the users, people from the 26-35 age group (26.8%), high school graduates (35.6%), civil servants and workers (19.2%), and people with a medium level of income (23.6% - TRY 2501-5000) seem to prefer the area. The incoming people seem to prefer to come to the area with their private vehicles (59.6%). It has been concluded that the majority of the people using the area come to the area once a year (24.4%), daily (73.2%), in autumn (42.0%) and with their family members (42.0%). Regarding the livelihoods of Erikli High Plateau, the evaluation reveals that olive cultivation is preferred in the first place. The intentions of the users of Erikli High Plateau differ. The examination of what kind of recreational areas the visitors coming to Erikli High Plateau visit, in general, reveals that waterfront is in the first place by 32.9%. In a similar study conducted in a coastal area and evaluated ecology-based tourism, Pirselimoglu Batman et al. (2019) found that the majority of the visitor profile came with their families while using the private vehicles. The study also determined that the users wanted to spend their time mostly in the waterfront area [36]. Similarly, in their study, which they conducted in Altindere Valley, where rural areas are concentrated and have a rich natural, historical and cultural values, Pirselimoglu and Demirel (2015) determined why the visitor profile prefer "historical and cultural areas" and "mountainous areas" the most [17]. In his study, which he conducted in Çoruh Basin (Artvin, Turkey), Demirel (1997) determined the areas where visitors prefer to do the greatest number of activities as "Riverside areas", "Meadows" and "forest edge areas" [63].

Various reasons affect visitors to come to this area according to the answers they gave. The first reason is the natural beauties of the area with 22.7%. An analysis of the benefits of recreational activities on the fields reveals that the main tendency of the visitors is economic benefits by 41.6%. In their study conducted in Hatila Valley National Park (Artvin, Turkey), Kurdoğlu et al. (2006) found that for visitors, the most important factor is the beauty of landscapes [64].

Visitors prefer the areas with high natural resource value mostly because of their natural features, landscape beauties, climatic features, and calm environments away from the cities, as they offer visitors the places they can easily stroll.

Uzun and Müderrisoğlu (2010) stated that to improve the quality of recreational experiences, it is necessary to reduce negative effects first. An evaluation of the harms that recreational activities may bring in the study area exhibits that 51.2% of the visitors stated that the natural structure will deteriorate. While the visitors think that the natural beauties of this area are the most important factor for them, they believe that the natural structure may deteriorate with intensive use of the area. Regarding the shortcomings of this area in terms of touristic and recreational aspects, it is determined that there is the 'lack of accommodation facilities' in the 1st place. According to the survey results, 55.6% of the users are not satisfied with the touristic and recreational use of the area. These dissatisfied users made the researchers conclude that they want more regular, well-maintained green areas in the area. Lack of a specific plan in the area causes the area to be used unconsciously and the area to be neglected [65].

About the most popular 'touristic and recreational activities', users' answer in the first place was 'meeting-chat'. In line with the natural features of Erikli High Plateau, users spend activities in the area such as spending time in nature, chatting, cycling, hiking and trekking. The recreational and touristic activities and infrastructures that the users want to see in this area are 'accommodation facilities' in the first place. Likewise, users wanted to have cycling trails and camping areas to make use of the natural resources of the area. The most well-known festival in the area is Delmece Festival.

Fung and Jim (2015) worked with five different visitor sets in their study on nature-based tourism in the Hong Kong Global Geopark. Those people were the ones fleeing for nature, natural heritage enthusiasts, curious and willing groups, socializers, and passive visitors. This study benefited from the wishes and expectations of the visitors to provide an activity-oriented and high-satisfaction area. Their experiences were determined and everything they wanted from the area was taken into consideration in favor of the area [32].

In the third stage of the study, SWOT analysis was done in line with the plateau tourism of Erikli High Plateau with the data obtained from the surveys and field uses.

SWOT analysis is an effective method in forming strategies in planning. It is also a technique that provides understanding and evaluation of internal and external factors that shape these strategies [66]. In this study, a SWOT analysis was conducted to reveal the current state of the area, the results obtained from the survey data, and the touristic and recreational potential of the area. The Strengths of the area according to the results of the analysis are as follows: it is rich in natural vegetation and fauna, it has cultural resource values, it has the opportunity to be visited during all four seasons, it has natural resources and an intact environment, and it has economic resource values.

Weaknesses of the area are as below: the awareness of a plateau is not adequate and common in local people and tourists, it is not possible to get to the area by public vehicles other than automobiles, the lack of recreation areas, the lack of service units and infrastructure facilities in the recreation areas, the visitors coming to the area cannot benefit from the existing natural and cultural resource values, and the lack of introducing and guiding displays of the compliance of the Vegetation, natural resources, and cultural values of the area to the area's existing recreational and tourism activities.

The Opportunities that the area presents in line with its tourism and recreation potential are as follows: the environment of Erikli High Plateau has a positive impact on the socio-cultural development, there are daily tours organized by tourism agencies and associations both from the surrounding provinces and within the province, the natural resources are sustainable and convenient, the region allows different touristic activities, Rural tourism and Visits for ecotourism improve the social structure of the local people and allow them to increase their social interaction, the area has fields that enable nature-based tourism types, the area has topography that allows the realization of a comprehensive planning of infrastructure, increased demand for tourism based on natural resources in Turkey and in the world, increasing the demand for tourists to the area by promoting the existing tourism supply in various ways, tourism facilities can administered over 12 months, recreational activities may provide economic benefits to the area as well as cause damages such as deterioration of the natural structure.

The threats that the area faces are as follows: the existing roads do not respond to the increasing demand and the roads leading to the plateau are narrow and over-curved, the lack of planning approach in the area causes unconscious use, the environmental problems arising from the unconscious use of the natural areas, the intense use of the area during the weekend holidays and the resulting pollution and deterioration, and a sea-oriented tourism approach in the region.

In their study for the Investigation of Ecology-Based Recreation and Tourism Planning Principles in Çalköyü High Plateau Settlement in Trabzon, Pirselimoglu and Demirel (2012)

used the SWOT analysis method. The strengths, weaknesses, opportunities, and threats of the area were revealed through interviews with five different social groups. After the evaluations, the tourism and recreation potential of the area and the approaches to recreational planning were determined [16]. In a similar study, Kiper and Arslan (2007) used the SWOT analysis technique in their study titled "A Study on the Determination of the Routes of Trekking in Anatolia in the Frame of Nature Based Tourism ". In their study, they determined the points of the study area suitable for nature tourism by making SWOT analysis and compliance analysis [70]. Erduran et al. (2012) did a study named 'Ecotourism in Protected Areas: Kazdağı (Mount Ida), A Case Study in Turkey' in the national park area in the provincial borders of Çanakkale-Balıkesir and 4 villages (Pınarbaşı, Beyoba, Mehmetalan, and Kızılkeçili). In the study, SWOT analysis was done as a result of examining the current situation of the area, revealing the natural and cultural values of the area, the researchers had interviews with local people and local administrators, and the study concluded that these settlements have significant potential for ecotourism development [43]. Zhang (2012) conducted a SWOT analysis to analyze the challenges, weaknesses, opportunities, and threats in the rural development of the study area and make a comprehensive assessment. In the study, they determined the positive and negative aspects of the rural resources of the area. The researchers revealed the opportunities and threats the area faced and proposed appropriate measures for them [24]. In their study, Kantawateera et al. (2013) examined the power of tourism development by performing SWOT analysis in Khon Kaen, Thailand. There, while doing a SWOT analysis, interviews were performed with 21 participants, and a focus group of 8 participants was created with which SWOT analysis was conducted and discussed. The main types of tourism in Khon Kaen are cultural tourism, which is related to the local culture and livelihoods in the area, agricultural tourism, and ecotourism. However, the study concluded that there was no attention in the area in terms of environmental issues. Nevertheless, the researchers emphasized that local life and livelihoods are also an important point [29]. Scolozzi et al. (2014) used SWOT analysis for protection strategies in their study in protected areas. With SWOT analysis, the authors identified management strategies for the conservation of the ecosystem and biodiversity of the area and identified conservation priorities [67]. In their study, Comino and Ferretti (2016) conducted an indicator-based spatial SWOT analysis for a complex soil system with multiple values. In the study, by spatial SWOT analysis, the most sensitive components of the soils that need intervention and follow-up, namely weaknesses, environmental and physical factors that are under the serious influence of humans, namely threats, and the most valuable areas that require monitoring and protection, namely strengths and opportunities, were identified [45]. Fons et al. (2011) investigated the development of the current state of sustainable local rural tourism with their work in Aragon, Spain. In this study, the SWOT model was applied after the interview analysis to determine the advantages and disadvantages of rural tourism in Aragon. In this way, a detailed decision was made by measuring the strengths, weaknesses, opportunities, and threats of the area. The study emphasized that rural tourism is more than just a way of consuming and entertaining, but an important work among sustainable alternatives [20].

In the last stage of the study, the data obtained by SWOT analysis were evaluated on a Likert scale by the expert survey. Thus, the priorities were determined in the planning approach to be introduced for the area. Each proposition put forward was evaluated on the 5-point Likert scale by the experts and the prominent values within the SWOT analysis were determined. Accordingly, the factor that has come to the forefront as a strength in terms of climate is that the area offers the opportunity to be visited and seen in four seasons. Among the weaknesses, the highest rate was observed to be the absence of the introducing and guiding promotions of the compliance of the vegetation, natural resources, and cultural values of the area with the recreational and tourism activities of the area. The fact that the region allows different touristic

activities is the highest value among the opportunities. The prominent threat to the area was the increase of environmental problems arising from the unconscious use of the natural parts of the area. In a similar study, Kılıçaslan et al. (2012) carried out a questionnaire primarily with users in an urban site settlement. Ideas and opinions of people about outdoor life were determined. Considering these results, SWOT analysis was done and the strengths, weaknesses, opportunities, and threats of the area were evaluated. The evaluation way of the built environment, which was under protection, by experts was discussed as well [68].

It is understood that the area and its surroundings have an important natural resource value with rich natural vegetation, lakes around it, and climatic features. However, we also see the existence of important cultural values with festivals, plateau settlements, and economic activities. This suggests that recreational areas and ecology-based tourism resources should be developed in future planning. Nevertheless, it is necessary to contribute the area by raising awareness of the visitors with the recreational works carried out that aim to preserve the nature of the area and the presence of vegetation, based on protection-use balance, without harming natural resources, and to increase the number of different recreational activities. The participation of visitors and local people should be encouraged while planning the area in terms of both recreational and touristic activities. As a result, planning approaches that will increase the potential of the area and contribute to the local economy should be developed. The fact that the research area is rich in terms of socio-economic and cultural values as well as natural resource values and that it has an ecology-based tourism potential exhibit that it has suitable opportunities for touristic activities and recreational activities. In their study, Wozniak et al. (2018) emphasize that landscape potential should be fulfilled precisely as the first step in effective landscape planning. They state that such fulfillment depends not only on the landscape features that are important for tourism but also on the desire of the tourists to use them [69].

It is important to have information about the characteristics of tourism as well as determining the regions where the tourist activities based on nature tourism increase and establishing the purpose and intensity of the tourism planning activities to be carried out in the area. Arrangements and planning directly affect what the tourists expect from the area.

Integrated planning approaches should be determined in line with the ecology-based tourism planning approaches that ensure the inviolateness and sustainability of the natural and socio-cultural resources of Erikli High Plateau. To contribute to the effective development of ecology-based tourism, it is necessary to make local people participate in this planning process, which will raise awareness of them about tourism. According to the results obtained with the study conducted in this direction;

- Since the visitors think that the natural and cultural resource values of the area may deteriorate by more users coming to the area, the necessary infrastructure and facilities for the area should be built under the natural resource values after making plans considering the conservation-use balance.
- Alternative transportation opportunities should be provided, making it easier for visitors to come to the area.
- Environmentally sensitive and leak-proof natural materials should be used, equipments must be looking not to spoil the natural structure, and in compliance with the aesthetics of the area.
- Should be provided to ensure the introducing and guiding promotion of the area's compliance of vegetation, natural resources, and cultural values with the current recreational and tourism activities.
- Tourism activities that will contribute economically to local people should be increased and opportunities to promote the region's unique resources should be offered.

- Festivals where the culture of the region will be kept alive should be increased in number.
- Highland settlements that will provide the survival of the culture of plateaus and carry out transhumance activities should be created.

REFERENCES

- [1] Kiper, P., & Baççıl, I. (1992). Doğu Karadeniz Yaylaları Planlama Yaklaşımı. Doğu Karadeniz Turizm Konferansı-Workshop, Turizm Eğitimi Genel Müd. Yay. Trabzon.
- [2] Pirselimoğlu Batman, Z. (2013). Altındere Vadisi (Trabzon-Maçka)'nde Ekolojik Temelli Turizm Planlama Yaklaşımı ve Alternatif Turizm Olanaklarının Araştırılması [Ph.D. Thesis]. Trabzon: Karadeniz Technical University.
- [3] Pirselimoğlu, Z. (2007). Ekolojik Temelli Rekreasyon ve Turizm Planlama İlkelerinin Araştırılması: Trabzon İli Çalköyü Yayla Yerleşimi Örneği, Yüksek Lisans Tezi, K.T.Ü., Fen Bilimleri Enstitüsü, Peyzaj Mimarlığı Anabilim Dalı, Trabzon.
- [4] Mansuroğlu, S. (2006). Turizm Gelişmelerine Yerel Halkın Yaklaşımlarının Belirlenmesi: Akseki / Antalya Örneği. Akdeniz Üniversitesi Ziraat Fakültesi Dergisi, 19(1): 35-46.
- [5] Weaver, D. (1998). Ecotourism in the Less Developed World, Wallingford: CAB International.
- [6] Pirselimoğlu Batman, Z., Demirel, Ö., & Kurdoğlu, B.Ç. (2016). Ecology-Based Tourism Potential of Altındere Valley (Trabzon-Turkey) in Regards to the Natural, Historical and Cultural Factors. International Journal of Sustainable Development and World Ecology, 23:233-244.
- [7] Sutawa, G.K. (2012). Issues on Bali tourism development and community empowerment to support sustainable tourism development. International conference on small and medium enterprises development with theme). Procedia Economic Finance, 4: 413-422.
- [8] Akbulak, C., & Cengiz, T. (2014). Determining ecotourism strategies using A'WOT hybrid method: case study of Troia Historical National Park, Çanakkale Turkey. International Journal of Sustainable Development and World Ecology, 21(4): 380-388.
- [9] Shi, L., Zhao, H., Li, Y., Ma, H., Yang, S., & Wang, H. (2015). Evaluation of Shangri-La County's tourism resources and ecotourism carrying capacity. International Journal of Sustainable Development and World Ecology, 22(2):103-109.
- [10] Getz, D., (1986). Tourism and Population Change: Long Term Impacts of Tourism in the Badenoch-Strathspey District of the Scottish Highlands, Scottish Geographical Magazine, 102, 2, 113-126.
- [11] Çubuk, M. (1995). Sürdürülebilir Turizm, Turizm Planlamasına Ekolojik Yaklaşım, Türkiye'de 19.Dünya Şehircilik Günü Kolokyumu; MSÜ, İstanbul.
- [12] Welford, R., & Ytterhus, B. (2004). Sustainable development and tourism destination management: A case study of the Lillehammer region, Norway. International Journal of Sustainable Development and World Ecology, 11:410-422.
- [13] Kuntay, O. (2004). Sürdürülebilir Turizm Planlaması, Alp Yayınevi, Ankara.
- [14] Benzer, ANK. (2006). Bolu-Göynük ve Yakın Çevresi Doğal ve Kültürel Kaynakların Ekoturizm Açısından Değerlendirilmesi [Ph.D. Thesis]. Ankara: Ankara University.
- [15] Holleran, J.N. (2008). Sustainability in tourism destinations: exploring the boundaries of eco-efficiency and green communications. Journal of Hospitality & Leisure Marketing, 17(3-4): 373-394.
- [16] Pirselimoğlu, Z., & Demirel, Ö. (2012). A study of an Ecology based recreation and tourism planning approach: a case study on Trabzon Calköy high plateau in Turkey. International Journal of Sustainable Development and World Ecology, 19:349-360. doi:10.1080/13504509.2012.662181
- [17] Pirselimoğlu Batman, Z., & Demirel Ö. (2015). Ecology-based Tourism Potential with Regard to Alternative Tourism Activities in Altındere Valley (Trabzon-Maçka). International Journal of Sustainable Development and World Ecology, 22:39-49.

- [18] Özügül, M.D. (2016). Ekolojik Planlama, Kentsel Planlama, Ansiklopedik Sözlük, Derleyen: Melih Ersöz,107-112.
- [19] Yüksel, F., Bramwell, B., & Yüksel, A. (1999). Stakeholder Interviews and Tourism Planning at Pamukkale, Turkey. *Tourism Management*, 20:351–360.
- [20] Fons, M.V.S., Fierro, J.A.M., Patino, & M.G. (2011). Rural Tourism: A Sustainable Alternative. *Applied Energy*, 88:551-557.
- [21] Kent, K., Sinclair, A.J., & Diduck, A. (2012). Stakeholder Engagement in Sustainable Adventure Tourism Development in the Nanda Devi Biosphere Reserve. India. *International Journal of Sustainable Development and World Ecology*, 19:89-100.
- [22] Cheung, L.T.O & Jim, C.Y. (2014). Expectation and willingness-to pay for ecotourism services in Hong Kong's conservation areas. *International Journal of Sustainable Development and World Ecology*, 21:149–159.
- [23] Randelli, F., & Tortora, P.R.M. (2014). An Evolutionary Approach to the Study of Rural Tourism: the case of Tuscany. *Land Use Policy*, 38:276-281.
- [24] Zhang, H., Lei, & L.S. (2012). A Structural Model of Residents' Intention to Participate in Ecotourism: The Case of a Wetland Community. *Tourism Management*, 33: 916-925.
- [25] Shoo, R.A., & Songorwa, A.N. (2013). Contribution of Ecotourism to Nature Conservation and Improvement of Livelihoods around Amani Nature Reserve Tanzania. *Journal of Ecotourism*, 12:75-89.
- [26] Balbi, S., Giupponi, C., Perez, P., & Alberti, M. (2013). A spatial agent-based model for assessing strategies of adaptation to climate and tourism demand changes in an alpine tourism destination. *Environmental Modelling and Software*, 45:29-51.
- [27] Goranczewski, B., & Puciato, D. (2010). SWOT analysis in the formulation of tourism development strategies for destinations. *Tourism*, 20(2):45-53.
- [28] Rahmani Seryasat, M., Hajari, B., Karimian, T., & Hajilo, M. (2013). Rural Tourism Development Strategies Using SWOT analysis: Case study, *Life Science Journal* 10(4):395-403.
- [29] Kantawateera, K., Naipinit, A., Sakolnakorn, T.P.N, Churngchow, C., & Kroeksakul, P. (2013). A SWOT Analysis of Tourism Development in Khon Kaen, Thailand, *Asian Social Science*, 9(17): 226- 231.
- [30] Walker, K., & Moscardo, G. (2014). Encouraging Sustainability beyond the Tourist Experience: Ecotourism, Interpretation and Values. *Journal of Sustainable Tourism*, 22: 1175-1196.
- [31] Dhama I., Deng, J., Burns, R.C., & Pierskalla C. (2014). Identifying and mapping forest-based ecotourism areas in West Virginia-incorporating visitors' preferences. *Tourism Management*, 42:165-176.
- [32] Fung, C.K.W.,& Jim, C.Y. (2015). Segmentation by motivation of Hong Kong Global Geopark visitors in relation to sustainable nature-based tourism, *International Journal of Sustainable Development and World Ecology*, 22 (1): 76-88.
- [33] Demir, S., Esbah, H., & Akgün, A.A. (2016). Quantitative SWOT analysis for prioritizing ecotourism-planning decision in protected areas: Igneada case. *International Journal of Sustainable Development and World Ecology*, 23: 456-468.
- [34] Tham, A. (2017). Envisioning Eden: The manufactured ecotourism environment of Singapore. *Journal of Ecotourism*, 18: 1-24.
- [35] Nowacki, M., Kowalczyk-Anioł, J., Królikowska, K., Pstrocka-Rak, M., & Awedyk, M. (2018). Strategic planning for sustainable tourism development in Poland. *International Journal of Sustainable Development and World Ecology*, 25 (6): 562-567
- [36] Pirselimoglu Batman, Z., Özer, P., & Ayaz, E. (2019). The Evaluation of Ecology- Based Tourism Potential in Coastal Villages in Accordance with Landscape Values and User Demands: the Bursa-Mudanya Kumyaka Case. *International Journal of Sustainable Development and World Ecology*, 26(2): 166-178.
- [37] Demir, S., & Atanur, G. (2019). The prioritization of natural-historical based ecotourism strategies with multiple-criteria decision analysis in ancient UNESCO city: Iznik-Bursa case. *International Journal of Sustainable Development and World Ecology*, 26(4): 329-343.
- [38] Anonymous (2018). Yalova İl, İlçe Coğrafya Bilgileri. [Internet] (2018 Apr 01) <http://www.cinarcik.bel.tr/tr/cinarcik-genel-bilgiler>.

- [39] Pickton, D.W., & Wright, S. (1998). What's SWOT in strategic analysis?, *Strategic Change*, 7, 101-109.
- [40] Aydın Türk, Y. (2006). Bütünleşik Kent Planlama ve Tasarımına yönelik Bir Yöntem [Ph.D. Thesis]. Trabzon: Karadeniz Technical University.
- [41] Cengiz, T. (2007). Tourism, an ecological approach in protected areas: Karagöl- Sahara National Park, Turkey. *International Journal of Sustainable Development and World Ecology*, 14 (3): 260-267.
- [42] Demir, S. (2011). İğneada'nın Ekoturizm Potansiyelinin Saptanması. [M.Sc. Thesis] İstanbul: İstanbul Technic University.
- [43] Erduran, F., Özel Cengiz, A.E, & Sağlık, A. (2012). Potential ecotourism in protected area: A case study at Kazdağı (Mt.Ida), Turkey. *African Journal of Agriculture Research*, 7(11): 1772-1781.
- [44] Kamer Aksoy, Ö. (2015). Perşembe-Fatsa Arası Kıyı Kesimi Doğal ve Kültürel Peyzaj Kaynaklarının Turizm Açısından İncelenmesi. [Ph.D. Thesis]. Trabzon: Karadeniz Technical University.
- [45] Comino, E., & Ferretti, V. (2016). Indicators-based spatial SWOT analysis: Supporting the strategic planning and management of complex territorial systems. *Ecological Indicators*, 60: 1104-1117.
- [46] Büyüköztürk, Ş. (2012). Sosyal Bilimler İçin Veri Analizi El Kitabı. Ankara: Pegem Akademi Yayıncılık.
- [47] Vural, H. (2012). Tarım ve Gıda Ekonomisi İstatistiği. Uludağ Üniversitesi Ziraat Fakültesi Ders Notları No: 107, Bursa.
- [48] Özdamar, K. (2003). Modern Bilimsel Araştırma Yöntemleri, Kaan Kitabevi, Eskişehir
- [49] Uçar, D., & Doğru A. (2005). CBS Projelerinin Stratejik Planlaması ve SWOT Analizinin Yeri. TMMOB Harita ve Kadastro Mühendisleri Odası 10. Türkiye Harita Bilimsel Teknik Kurultayı. 28Marc- 1 April. Ankara.
- [50] Anonymous (2012). Orman ve Su İşleri Bakanlığı 2. Bölge Müdürlüğü, Yalova Şube Müdürlüğü, Yalova Doğa Turizmi Master Planı, Yalova.
- [51] Anonymous (2016). Yalova Valiliği, Yalova İli Tabiat Turizmi Uygulama Eylem Planı, 2016-2019, Yalova.
- [52] (2014a). Orman ve Su İşleri Bakanlığı, Doğa Koruma ve Milli Parklar Genel Müdürlüğü, Delmece Yaylası Tabiat Parkı Gelişme Planı, Yalova.
- [53] Anonymous (2014b). Yalova İli Çınarcık İlçesi Teşvikiye Beldesi Delmece Yaylası Tabiat Parkı, 1/1000 Ölçekli Uygulama imar Plan Raporu, Yalova.
- [54] Anonymous (2014c). Yalova İli Çınarcık İlçesi Teşvikiye Beldesi Delmece Yaylası Tabiat Parkı, 1/5000 Ölçekli Nazım İmar Plan Raporu, Yalova.
- [55] Anonymous (2014d). Yalova Çevre ve Şehircilik Müdürlüğü, 2014 Yılı İl Çevre Durum Raporu, T.C. Çevre ve Şehircilik Bakanlığı, T.C. Yalova Valiliği, Yalova.
- [56] Anonymous (2014e). Yalova Valiliği, İl Kültür ve Turizm Müdürlüğü, Yalova Kültür ve Turizm Envanteri, 2014, Yalova.
- [57] İslamoğlu, İ., İmamoğlu, A., & Çavuşoğlu, G. (2014). Verçenik Yaylası'nın Alternatif Turizmi ve Rekreatyonel Faaliyetlerinin Belirlenmesi. *International Journal of Science Culture and Sport*, SI (2):271-282.
- [58] Doğanay, S. (2001). Doğu Karadeniz'de Yayla Turizmi Merkezlerine Yeni Bir Örnek: Taşköprü Yaylası, *Doğu Coğrafya Dergisi*. 26: 94-96.
- [59] Bunruamkaew, K., & Murayama, Y. (2011). Site Suitability Evaluation for Ecotourism Using GIS & AHP: A Case Study of Surat Thani Province Thailand. *Procedia Social Behavioral Science*, 21: 269-278.
- [60] Kiper, T., Özyavuz, M., & Korkut, A. (2011). Doğal Peyzaj Özelliklerinin Kırsal Turizm Gelişimine Etkisi: Tekirdağ İli Şarköy İlçesi Örneği. *Tekirdağ Ziraat Fakültesi Dergisi*, 8(3): 22-34.
- [61] Veisten, K., Haukeland, J.V., Baardsen, S., Degnes-ødemark, H., & Grue, B. (2015). Tourist Segments for New Facilities in National Park Areas: Profiling Tourists in Norway Based on Psychographics and Demographics. *Journal of Hospitality Marketing Management*, 24:486-510.

- [62] Chaminuka, P., Groeneveld, R.A., Selomane, A.O., & Van Ierland, E.C. (2012). Tourist preferences for ecotourism in rural communities adjacent to Kruger National Park: a choice experiment approach. *Tourism Management*, 33:168–176
- [63] Demirel, Ö. (1997). Çoruh Havzası (Yusufeli Kesimi) Doğal ve Kültürel Kaynak Değerlerinin Turizm ve Rekreasyon Potansiyeli Açısından Değerlendirilmesi Üzerine Bir Araştırma [Ph.D. Thesis]. Trabzon: Karadeniz Technical University.
- [64] Kurdoğlu, B.Ç., Kurdoğlu, O., & Karashaş, B. (2006). Hatila Vadisi Milli Parkı için farklı bir rekreasyonel yaklaşım. *Artvin Orman Fakültesi Dergisi*, 7(2): 145-158.
- [65] Uzun, S., & Müderrisoğlu, H. (2010). Kırsal rekreasyon alanlarında kullanıcı memnuniyeti: Bolu Gölçük Ormanı dinlenme yeri örneği. *Süleyman Demirel Üniversitesi Orman Fakültesi Dergisi*, A(1): 67-82.
- [66] Kundak, S. (2014). GZFT Analizi, Şehir Planlamada Analiz ve Değerlendirme Teknikleri, Editör: Elif Alkay, Literatür Yayınları, Bölüm:9, 163-171.
- [67] Scolozzi, R., Schirpke, U., Morri, E., D'Amato, D., & Santolini, R. (2014). Ecosystem services-based SWOT analysis of protected areas for conservation strategies, *Journal of Environmental Management*, 146: 543-551.
- [68] Kılıçaslan, Ç., Malkoç, E., Özkan, M.B., Tunçalp, G., & Aydın, A.O. (2012). Kentsel Sit Yerleşimlerinde Dış Mekan Yaşantısının Değerlendirilmesi: Şirince Köyü, Selçuk. *Ege Üniversitesi Ziraat Fakültesi Dergisi*, 49(3): 265-274.
- [69] Wozniak, E., Kulczyk, S., & Derek, M. (2018). From intrinsic to service potential: An approach to assess tourism landscape potential, *Landscape Urban Planning*, 170: 209-2020.
- [70] Kiper, T., & Arslan, M. (2007). Anadolu'da Doğa Turizmi Kapsamında Doğa Yürüyüşü Güzergâhlarının Belirlenmesinde Örnek Bir Çalışma. *Tekirdağ Ziraat Fakültesi Dergisi*, 4(2):165-174.