

# Silent Treasures of Nature: The Awakening of Bingöl Lakes With Ecotourism

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#### Keywords

Ecotourism, Bingöl, Natural Lakes, Landscape Design **Abstract:** With its abundant natural beauty and pristine ecosystems, Bingöl is one of Turkey's best-kept natural secrets. One of the most remarkable elements of these beauties is the natural lakes in the region. However, for many years, both security and carelessness have prevented these lakes' tourism potential from being realised. Ecotourism, which aims to sustainably protect natural and cultural resources, offers an important opportunity for the development of tourism in these regions. This study examined the ecotourism potential of four natural lakes in the province of Bingöl with the goal of promoting tourism in these areas.

Within the scope of the research, firstly, a survey was conducted with 192 people to determine the perspectives of Bingöl people on ecotourism and the potential in the province where they live. SWOT studies were conducted for four designated natural lakes (Balpınar Lake, Gerindal Lake, Natural Thermal Water Situated in Ilıcalar, Sarıçiçek Lake) in collaboration with professionals, including academics and students from the landscape architecture department. Based on the collected data, the research concluded with the creation of landscape designs for the chosen lakes. The primary objective of this project is to serve as a model for ecotourism design of concealed natural attractions.

# Doğanın Sessiz Hazineleri: Bingöl Göllerinin Ekoturizm İle Uyanışı

Anahtar KelimelerÖz: Bingöl, zengin doğal güzellikleri ve bozulmamış ekosistemleriyle Türkiye'nin gizli kalmış<br/>doğa hazinelerinden biridir. Bu güzelliklerin en dikkat çekici unsurlarından biri de bölgedeki<br/>doğal göllerdir. Ancak, bu göllerin turizm potansiyeli uzun yıllar boyunca gerek güvenlik<br/>gerekse ihmalkarlık nedeniyle göz ardı edilmiştir. Doğal ve kültürel kaynakların sürdürülebilir<br/>şekilde korunmasını amaçlayan ekoturizm, bu bölgelerdeki turizmin gelişmesi için önemli bir<br/>fırsat sunmaktadır. Bu bağlamda, Bingöl ilindeki dört doğal göl, ekoturizm potansiyeli açısından<br/>incelenmiş ve bu bölgelerin turizme kazandırılması hedeflenmiştir.

Araştırma kapsamında ilk olarak Bingöl halkının ekoturizme ve yaşadıkları ildeki potansiyele bakış açılarını belirlemek için 192 kişi ile anket çalışması yapılmıştır. Seçilen dört doğal göl için (Balpınar Gölü, Gerindal Gölü, Ilıcalar Beldesi Doğal Termal Su Yatağı, Sarıçiçek Gölü) uzman kişiler ile (öğretim elemanları ve peyzaj mimarlığı bölümü öğrencileri) SWOT analizleri yapılmıştır. Elde edilen veriler doğrultusunda son olarak seçilen göllerin peyzaj tasarımları yapılarak araştırma sonuçlandırılmıştır. Yapılan bu çalışmanın saklı kalmış doğal güzelliklerin ekoturizm planlamasında örnek olması araştırmanın temel amacıdır.

## 1. INTRODUCTION

Anatolia is abundant in natural and cultural resources, as it is a region where numerous civilisations thrived thousands of years ago, leaving behind their remnants. Consequently, it accommodates many forms of tourist [1], [2]. In 2019, global tourism revenue was estimated at 2 trillion dollars [3], [4]. Ecotourism activities, expanding at an average annual rate of 10%, are among the most rapidly increasing sectors in the global tourism market. Ecotourism activities represent 1-2% of the overall tourism market [3], [4], [5]. The Turkey Tourism Strategy 2023 document indicates that Turkey possesses distinctive opportunities in various forms of tourism beyond coastal tourism; however, this potential remains underexploited. It also highlights the overconcentration in the Mediterranean-Aegean coastal region, unregulated construction, inadequate infrastructure, and environmental issues in the coastal hinterlands and adjacent areas. The paper aims to leverage the natural, cultural, historical, and geographical assets of our country while maintaining a balance between preservation and utilisation, and to enhance tourism by offering alternative options [3], [6]. The potential of Turkey, coupled with the diminishing rural population and the escalating demand for rural development, renders ecotourism an optimal tourism strategy for the nation, necessitating the promotion of ecotourism to economically invigorate rural regions [3].

Ecotourism encompasses all tourism activities occurring in natural and cultural settings, with the objective of fostering the social and economic advancement of local communities through environmental conservation. These activities emphasise the acknowledgement and advancement of the local culture, geology, flora, and fauna of a certain place [7]. Ecotourism, as defined by the International Ecotourism Society, refers to responsible travel to natural regions that conserves the environment. supports the welfare of local communities, and incorporates interpretation and education. Training must encompass both personnel and guests [8]. The rise in this form of travel poses a concern, including the depletion of natural resources. Consequently, in addressing the demand for diversity, it is equally crucial to cultivate environmental consciousness in regions where ecotourism operations occur [9]. The Turkey Tourism Strategy 2023 asserts that ecotourism will facilitate economic stabilisation in its implementation regions, generate employment opportunities, foster business growth, enhance infrastructure investments, offer recreational and touristic prospects, augment public revenues, and elevate local awareness regarding environmental conservation and development [10].

Ecotourism endeavours seek to offer guests enlightening and enriching experiences while safeguarding natural and cultural heritage [11]. The sustainable utilisation of natural resources in ecotourism is achievable through multidisciplinary planning that safeguards existing habitats while preserving the biological integrity of the region [12].

Numerous initiatives categorised as rural tourism, ecotourism, and agrotourism are designed and executed within various rural and regional development programs in our country. These activities have the capacity to augment the family income of the residents in the region and generate new employment opportunities [13], [14]. Bingöl signifies the area of lakes and a multitude of lakes. Subsequently, Bingöl was referred to as Cevlik. Cevlik denotes a vineyard-garden. Cevlik is a designation currently employed by the inhabitants of Bingöl [15]. The province of Bingöl contains lakes that are remarkable natural phenomena. These natural ecosystems have gone unexamined for numerous years, their aesthetic appeal and ecological importance obscured. The increasing interest in ecotourism has illuminated these 'silent jewels,' offering a significant chance to preserve and highlight their distinctive attributes. This article examines the integration of natural lakes in Bingöl province into ecotourism, the local populace's attitudes towards tourism, and landscape design methodologies. The findings of this study regarding the awakening of nature's quiet treasures through ecotourism and the future of sustainable tourism may be pertinent to both planners and practitioners.

#### 2. MATERIAL AND METHOD

#### 2.1. Study Areas

The research region selected comprises Balpinar, Gerindal, Sarıçiçek lakes, and the Ilıcalar Town Natural Thermal Water, which have gained significant popularity among users in Bingöl Province and have had considerable growth in drawing domestic tourists in recent years. The primary rationale for selecting these areas is their recognition within Bingöl province, although they fail to garner adequate attention due to insufficient advertising (Figure 1).

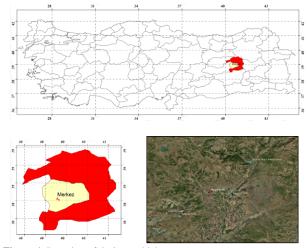


Figure 1. Location of designated lakes

Balpınar Lake, designated as a study area, is also referred to as Metan and Kız Lake in the region. The lake encompasses a surface area of roughly 2000 square meters. The lake is situated at an elevation of roughly 2000 m, 21.5 km from the town of Bingöl. It is rumoured that a young girl took her own life by leaping into this lake after being denied her beloved. Subsequent to this event, the lake was designated as Girl Lake in the area [16] (Figure 2).



Figure 2. Balpınar Lake

Gerindal Lake, another lake, is situated inside the confines of Şaban village, 18 km from the city of Bingöl. Academic investigations indicate that the lake environs harbour new floristic records [17], [18]. Furthermore, the lake's position at the confluence of the Elazığ and Bingöl provincial borders has resulted in a direct confrontation between the two provinces. The lake, possessing significant ecotourism potential, will attract numerous tourists following strategic planning and promotion [19]. The interviews revealed that the location is intriguing due to the belief among the populace that its water possesses therapeutic properties (Figure 3).



Figure 3. Gerindal Lake

Another lake chosen for the study was Sariçiçek Lake, also referred to as Sülüklü Lake. Sariçiçek Lake is about 17.5 km from the town of Bingöl (Figure 4). The user interviews revealed that the region is notable for its natural beauty and bike paths.



Figure 4. Sarıçiçek Lake

The final region chosen for the investigation is the natural thermal water situated in Ilıcalar, Bingöl province. The pond, much frequented by visitors, is situated 21.1 km from the town of Bingöl (Figure 5). The demand for thermal centres has recently surged as individuals have begun to choose healthy lifestyles and eschew synthetic medications [20]. Consequently, the promotion of regions with these characteristics has become significantly important for tourism. This location was chosen for the research to promote the natural water supply for ecotourism.



Figure 5. Natural thermal water situated in Ilıcalar

#### 2.2. Executing Surveys and SWOT Analyses

Public engagement is seen as a fundamental element of local tourist development [21]. During the execution of integrated planning, the populace assumes stewardship of the region and readily supports planners and implementers [22]. The natural lakes of Bingöl present a significant possibility for ecotourism due to their ecological diversity and aesthetic appeal. Nonetheless, tourist endeavours in the region cannot achieve sustainability without the backing of the local populace, as indicated in the research. The objective of conducting surveys is to ascertain how user demands will vary by incorporating diverse user profiles into the research [23].

This research performed 192 surveys to elucidate the perspectives of various user profiles from the population of Bingöl towards tourism and to illuminate shortcomings in present tourist activities.

SWOT analysis is applicable in the phases of strategic planning, problem identification, and solution creation. This strategy is often employed when numerical data is inadequate and the information is in the memory of specialised individuals or consumers [7], [24], [25]. To assess the strengths, weaknesses, opportunities, and threats of the chosen places, SWOT analyses were conducted with the expert group and the students from the Department of Landscape Architecture (Figure 6).



Figure 6. Survey, SWOT analysis, and research trips

#### 2.2. Development of Landscape Designs

A respectful approach to environment in landscape design constitutes a fundamental principle of ecotourism [26]. Ecotourism and landscape design are crucial for the conservation of natural resources and the implementation of sustainable environmental planning. Landscape design in ecotourism initiatives aims to conserve natural aesthetics and bolster the ecology. In this instance, landscape design offers tourists an aesthetically pleasing and informative experience by maintaining the area's natural integrity, whilst mitigating environmental degradation and fostering regional growth. Ecotourism planning seeks to conserve the region's unique ecological structure [27].

Ecotourism-oriented landscape designs were implemented around the chosen lakes following the collection of user feedback during the project phase. These designers sought to establish spaces that harmonise with the natural surroundings, prioritise ecological sustainability, and provide both aesthetic and utilitarian experiences for visitors. The research seek to both restore Bingöl's natural lakes and promote them as ecotourism destinations.

Landscape designs were developed utilising AutoCAD, ArchiCAD, and Lumion software, with distinct 3D visualisations created for each lake included in the research, as given in the article.

# 3. RESULTS AND DISCUSSION

#### 3.1. Survey Questions and Responses Obtained

The surveys indicated that most participants stressed the necessity of developing alternative tourism products in Bingöl to enhance ecotourism. The surveys conducted in the province indicate that the ecotourism potential remains undiscovered due to inadequate promotion and advertising, that the assessments of touristic supply are insufficient, yet the development of ecotourism is expected to continue to rise.

The research articulates that Bingöl province possesses year-round ecotourism potential, is geographically proximate to regions with established ecotourism, is less renowned than competing provinces, has a sufficient young population available for ecotourism initiatives, and can diversify tourism activities due to its rich folkloric culture.

Analysis of another survey question reveals that awareness of ecotourism in Bingöl is inadequate, there are infrastructural deficiencies in ecotourism services, unplanned development is leading to the degradation of natural and cultural resources, and there are shortcomings in financing and support for tourism.

It was found that ecotourism regions are expanding due to advancements in communication and transportation infrastructure, and that interest in tourism activities in Bingöl province is steadily rising. Upon enquiring about the participants' perspectives and recommendations for the advancement of ecotourism initiatives in Bingöl province, they expressed a desire to enhance transit infrastructure, elevate public awareness, and offer training on the sustainability of environment and natural resources. Participants highlighted several issues, including the inadequate advertising and marketing in Bingöl, which possesses significant ecotourism potential year-round due to its natural lakes, waterfalls, plateaus, ski centres, and thermal springs. Consequently, it fails to capture a substantial share of tourism compared to neighbouring provinces. Additionally, social facilities in

current tourism areas are lacking, and there is insufficient financial and incentive support for the restoration and rehabilitation of these regions. Management systems require enhancement, and tourism activities must be diversified (Table 1).

Table 1.	Survey	questions	and res	ponses	obtained
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Question	Criteria Other	N 7	Frequance
	Other Officer	7 45	3.60 23.40
Job	Student	45 107	23.40 55.70
	Private sector	33	17.20
	Balpınar	50	26.00
14 J A	Gerindal	49	25.50
Study Area	Sarıçiçek	50	26.00
	Ilıcalar	43	22.40
Alternative tourism	Totally agree	101	52.60
products should be	Agree	66	34.40
leveloped for the levelopment of	Undecided Disagree	13 9	6.80 4.70
ecotourism	Totally disagree	3	1.60
How do you	Very high	20	10.40
evaluate the	High	26	13.50
ecotourism	Normal	47	24.50
potential of Bingöl	Low	87	45.30
province?	Very Low	12	6.30
What do you think is the level of	Very high	20	10.40
effectiveness of the	High	20	10.40
activities for	Normal	47	24.50
diversification of	Low	70	36.50
touristic supply in			
Bingöl province?	Very Low	35	18.20
When the	Totally agree	50	26.00
consumption trends in the tourism	Agree	77	40.10
sector are observed,	Undecided	52	52.00
the development of			
ecotourism will	Disagree	9	9.00
continue to increase	Totally disagree	4	4.00
The abundance of	1	34	17.70
diverse tourism	2	49	25.50
resources and the	3		
possibility for year- round tourism in		57	29.70
Bingöl province	4	34	17.70
1(Weak/Strong)5	5	18	9.40
Proximity to	1	35	18.20
developed regions			
n terms of	2	51	26.60
ecotourism due to	3	63	32.80
its geographical location	4	31	16.10
location 1(Weak/Strong)5	5	12	6.30
Lower demand for alternative	1	44	22.90
activities of	2	42	21.90
equivalent quality	3	45	23.40
compared to rival	4	31	16.10
provinces			
1(Weak/Strong)5	5	30	15.60
Young and	1	18	9.40
dynamic	2	38	19.80
population that can	3	51	26.60
be utilised in	4	43	22.40
ecotourism supply			
I (Weak/Strong)5	5	42	21.90
Exotic culture with	1	18	9.40
rich folkloric and	2	19	9.90
cultural elements	3	45	26.40
and an emphasis on			
hospitality	4	49	24.10
1(Weak/Strong)5	5	58	30.20
	1 2	41 51	21.40 26.60

0	0.4	N	F
Question Proximity of the	Criteria 3	<u>N</u> 69	Frequance 35.90
selected areas to	4	20	10.40
settlements	5	11	5.70
1(Weak/Strong)5	-		
Awareness of	1 2	30 42	15.60 21.90
ecotourism is at an	3	62	32.30
adequate level 1(Weak/Strong)5	4	26	12.50
	5	32	16.70
Inadequacies in the infrastructure	$\frac{1}{2}$	5 38	7.80 19.80
utilised for	3	68	35.40
ecotourism services	4	32	16.70
1(Weak/Strong)5	5	39	20.30
Destruction of natural, cultural	1	31	16.10
and historical	2	35	18.20
resources due to	3	56	29.20
unplanned			
development and utilisation	4	28	14.60
1(Weak/Strong)5	5	42	21.90
Financing	1	35	18.20
difficulties and inadequacy of	2	28	14.60
support of	3	52	27.10
mechanisms for	4	37	19.30
ecotourism	5	40	20.80
1(Weak/Strong)5 Development of	1	32	16.70
green consumer			
movement based on	2	23	12.00
environmental	3	46	24.00
sensitivity 1(Not important /	4	28	14.60
Important)5	5	63	32.80
Expansion of	1	28	14.60
ecotourism coverage area			
thanks to	2	35	18.20
developing	3	38	19.80
communication and transportation			
facilities	4	38	19.80
1(Not important	5	53	27.60
/Important)5	5	55	27.00
Intensification of interest in	1	19	9.90
ecotourism, culture	2	27	14.10
and special interest	2	27	14.10
tourism, which have potential	3	43	22.40
within the borders	4	50	20.20
of Bingöl province	4	58	30.20
1(Not important)	5	45	23.40
/Important)5 The ageing Bingöl	1	14	7.30
population has a	2	23	12.00
high potential in	3	70	36.50
terms of ecotourism 1(Not important	4	45	23.40
/Important)5	5	40	20.80
Ecotourism	1	30	15.60
activities in	2	39	20.30
locations close to Bingöl province	3	65	33.90
1(Not important	4	28	14.60
/Important)5	5	30	15.60
Increasing the competitiveness of	1 2	32 35	16.70 18.20
rival provinces	23	57 57	29.70
1(Not important	4	33	17.20
/Important)5	5	35	18.20
<b>Risk of destruction</b>	1	19	9.90
of sensitive	2	42	21.90
	3	47	24.50

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Question	Criteria	Ν	Frequance
ecosystems subject	4	34	17.70
to ecotourism			
1(Not important	5	50	26.00
/Important)5			
Standardisation of	1	27	14.10
alternative tourism	2	39	20.30
products by losing	2	57	20.50
their local	3	61	31.80
characteristics	4	42	21.90
1(Not important	7	72	21.90
/Important)5	5	23	12.00
	Marketing	75	39.10
	Management and		
	business	93	48.40
	administration		
The most	Protection of the		
problematic areas	ecological 80		41.70
for ecotourism	environment		
development	Financing	79	41.10
	Infrastructure and	81	42.20
	transport	01	.2.20
	Education and	92	47.90
	employment		
	No idea	49	25.50
	Easy transport	15	7.80
Additional opinions	Education	26	13.50
and suggestions on	Marketing/Advertising	32	16.70
diversification of	Social facilities	15	7.80
tourism in Bingöl	Financial supports	20	10.40
province	Improvement of	16 8.30	
• • • • •	management systems		
	Diversification of	19	9.90
	tourism activities		

The outcomes of the survey indicate that nearly all participants recognise the ecotourism potential of Bingöl province. It has been concluded that it fails to garner the requisite attention in the province owing to insufficient investments resulting from both promotional shortcomings and economic challenges.

#### 3.2. Outcomes of SWOT Analysis

SWOT analyses were performed independently for four distinct locations by specialists and students from the Bingöl University Department of Landscape Architecture (Table 2). Within the scope of the project, the experts were selected among the academicians of landscape architecture, faculty of agriculture, faculty of veterinary medicine and vocational school of social sciences who are familiar with Bingöl province. All of the students are undergraduate students of landscape architecture department.

	Internal analysis		External analysis	
	Strengths	Weaknesses	Opportunities	Threats
Balpınar Lake	Supported by natural resources and has an adequate supply of water throughout all seasons	Insufficient transport infrastructure Inadequate advertising and promotion	Significant tourism potential	Contamination of the lake and its environs by visitors
	Numerous endemic plant species can thrive in the vicinity of the lake.	Insufficient understanding on tourism No facilities are available surrounding the lake.	It possesses the potential to enhance regional development via tourism.	The lake's considerable depth poses a drowning risk for anybody who enter it.
Gerindal Lake	Adequate water levels in the lake during all seasons.	Insufficient transport infrastructure	Exhibiting significant potential for tourism	
	The lake possesses a legendary narrative.		Facilitating rural advancement	
	Visually appealing (heart) aspect of the lake	Inadequate promotion and advertising	Additional natural attractions in the area are observable during excursions to the lake.	Contamina- tion of the lake and its vicinity by visitors
	Functioning as a crater lake The lake and its environs host diverse vegetation and animals.	No facilities are available surrounding the lake.	The lake is suitable for summer activities.	
Sarıçiçek Lake	Utilising natural water resources for nourishment	Intermittent reduction in water volume	Enhancing tourism potential via promotional and advertising initiatives	During the winter months, the thick ice covering that forms on the surface diminishes oxygen levels,
	Proximal to the urban core		Possessing ecotourism potential	potentially harming the aquatic organisms residing in the lake.
	Facilitated roadway transportation	Lack of awareness	Initiation of reverse migration in the region through the promotion of	Unconscious water usage
	Contribution	regarding the lake's tourism	tourism	might diminish water

to the region

agricultural

and livestock management

with

potential

availability.

Contribution

advancement

to rural

Natural thermal water situated in Ilıcalar	Sufficient amount and thermal quality of the subterranean water resources	Insufficient advertising and promotion	Utilisation of geothermal energy resources for applications such as heating, among others.	Elevated seismic hazard in areas with geothermal springs
	Thermal water resources can be utilised for therapeutic purposes.	Inability to attract investors who will convert thermal resources into economic investments	Facilitating regional development through the conversion of thermal resources into investments	Economic fluctuations may postpone the intended investments.
	The province is recognised in the region for thermal tourism and attracts visitors for this reason.	Insufficient transport infrastructure	Execution of investments utilising EU grant funding and contracted projects	In the long term, global warming may pose a significant issue.

#### 3.3. Landscape Designs

During the design process, people familiar with the lakes were questioned to identify the problems they observed, which informed the subsequent designs. Satellite and drone imagery were utilised during the planning phase to measure the lake areas and serve as a foundational reference.

#### 3.3.1. Balpınar Lake

The region's name clearly indicates its extensive utilisation by beekeepers in Bingöl province. Balpinar Lake, a popular destination for individuals seeking to gather mushrooms and the edible plant known as rhubarb (*Rheum ribes*), attracts numerous visitors. Designs were developed in accordance with the requirements gathered from the designated nature path and picnic area and included into the project.

The user interviews indicated a heightened desire for walking pathways and picnic spaces surrounding the lake. Landscape designs were also influenced in this manner (Figure 7).



Figure 7. Balpınar Lake landscape design

## 3.3.2. Gerindal Lake

Gerindal Lake is notable for its heart-shaped surrounding landscape. Due to the proximity of the lake to the city, the presence of plateaus on the road leading to the lake in the summer months, which are intensively used by the people engaged in nomadic animal husbandry, the stabilised roads, the fact that important destinations in terms of beekeeping are on the route, and the fact that it offers beautiful mountain views for Bingöl province, which is famous for its mountains, the region is especially frequented by nature walks and motocross trips. During the summer months, it accommodates beekeepers, animal breeders, and researchers on its indigenous plant species diversity. In accordance with the gathered requirements, the design of walking trails, picnic places, a facility for basic necessities, and appropriate zones for water activities has emerged as a priority. Subsequently, landscape designs were created and incorporated into the research (Figure 8).



Figure 8. Gerindal Lake landscape design

#### 3.3.3. Sarıçiçek Lake

Sariçiçek Lake is a popular destination for visitors who engage in walking and picnicking, owing to its close vicinity to Bingöl city core. Consequent to the user interviews, the design of the area as a picnic space and the incorporation of water sports facilities emerged as primary considerations. The concepts that evolved informed the designs, which were incorporated into the research (Figure 9).



Figure 9. Sarıçiçek Lake landscape design

### 3.3.4. Natural thermal water situated in Ilıcalar

The interviews yielded requests for the lake, characterised by its natural open pool structure, to be developed for winter tourism, to construct social amenities in the vicinity, and to promote ecotourism. Designs were developed in accordance with the obtained demands and incorporated into the research (Figure 10).



Figure 10. Natural Thermal Water Situated in Ilıcalar

Ecotourism is a sustainable tourism model that emphasises the conservation of the natural environment and the cultural history of a location. It constitutes a response to mass tourism and serves as an appropriate alternative for ecologically sensitive regions, as it is not confined to a particular season and incorporates components of rural and cultural tourism [28]. This research aims to establish an ecotourism route in Bingöl province that accommodates year-round tourism by transcending seasonal limitations.

The correlation between ecotourism and landscape design is crucial for the preservation of natural regions, sustainable tourism, and the support of local communities. Landscape design is essential for reducing ecological degradation and improving tourist experiences by maintaining the natural integrity of ecotourism locations. Ecological establishments like Feynan Ecolodge provide visitors with an experience that enhances environmental consciousness through sustainable designs utilising local materials. Furthermore, visitors are afforded the opportunity to engage with nature through environmentally integrated design, so enhancing the role of ecotourism in sustainable development. Ecological resorts like Elewana Tarangire Treetops in Tanzania offer tourists an immersive experience in nature through environmentally integrated architecture and efficient water management systems. These projects help the local economy while preserving the natural scenery. Conversely, institutions like the Oregon Zoo Education Centre enhance environmental awareness and promote sustainability through their educational initiatives [29].

Designs that ensure the protection of natural habitats and biodiversity support nature-based tourism and contribute economically to local communities [27]. Sustainable landscaping strategies in these projects encompass the preservation of indigenous flora and water resources while honouring the natural ecosystem. Simultaneously, features such as ecological paths, observation points, and informational signage facilitate ecotourism's contribution to enhancing environmental consciousness while acquainting visitors with the region's natural splendour.

### 4. DISCUSSION AND CONCLUSION

Ecotourism, an expanding sector of the tourism industry, has garnered significant interest in recent years for its capacity to foster environmental conservation, cultural preservation, and sustainable economic growth. An increasingly significant feature of ecotourism is its correlation with landscape design.

Landscape design seeks to uphold ecological and cultural values grounded in sustainable principles. Consequently, landscape architects may conserve natural ecosystems while simultaneously developing tourist attractions. Such designs assist the primary objectives of ecotourism: enhancing environmental awareness and bolstering the local economy [30].

The interplay between ecotourism and landscape design is intricate and multifarious. Ecotourism offers a concrete economic motivation for conservation, as it is an industry that significantly relies on the natural resources of numerous sites. Nonetheless, the same business may present considerable risks to the environment if not meticulously controlled and engineered.

Landscape design is essential for the advancement and efficacy of ecotourism projects. Landscape design may improve visitor experiences, promote the preservation of natural settings, and foster a stronger link between tourists and the local ecology. A poorly planned area will lack a conceptual framework to direct tourism development and destination management, adversely affecting actual ecotourism benefits [31].

Bingöl possesses significant potential for ecotourism because to its natural landscapes and lakes. Landscape design initiatives can save and enhance these natural regions while economically benefiting local populations. Landscaping focused on ecotourism around water resources will enhance visitor experiences and foster ecological sustainability. Consequently, enhancing Bingöl's ecotourism potential can safeguard the region's natural resources and elevate the living standards of its inhabitants. It will also promote ecotourism by offering an educational experience to visitors.

As a result of the surveys conducted within the scope of the research, it was concluded that the people of Bingöl are conscious about ecotourism, that they cannot receive sufficient investment compared to the neighbouring provinces, and that they will support the activities to be carried out since they think that they will prevent migration as they can create employment. They also stated that they will contribute to the construction of settlement and necessary equipment applications as both local and provincial people.

Upon evaluating the answers derived from the questionnaires, the objective is to advance ecotourism in Bingöl province;

• Formulating strategies to guarantee sustainable utilisation in the regions,

- Creating marketing and promotions to attract visitors to regions that are secure and remain unspoiled,
- The formulation and execution of ecotourism initiatives ought to have financial backing from both governmental and commercial entities,
- Promoting tourism variety in the province, which possesses significant folkloric and gastronomic attributes,
- Local governments ought to promote ecotourism to the public via social and economic awareness initiatives,
- The importance of teaching and creating awareness among local communities regarding this subject should be underscored.

Considering the lakes in the study area and the activities that can be done;

Balpinar Lake stands out as an area frequently visited by users due to its proximity to the centre, the wellmaintained road on which transportation is provided and the collection of plants with income-generating value. When we look at the disadvantages of the lake, the small surface area of the lake, the fact that it does not provide living opportunities for living creatures in the lake, and the infrastructure (electricity, sewerage) do not provide opportunities for activities such as water sports, fishing and accommodation.

Gerindal Lake stands out with its natural beauties. Especially the presence of endemic plants in the region causes the region to be visited frequently due to scientific studies. The surface area of Lake Gerindal is large enough to allow water sports. However, as in Balpınar Lake, it does not allow activities such as accommodation in the region due to the insufficiency of infrastructure facilities and the difficulty of transportation and the difficulty of access by road in case of any emergency.

Sariçiçek Lake is among the regions frequently visited by local people due to its natural beauty, proximity to the centre and proximity to Sariçiçek village. The lake in question also provides water sports as a surface area. Here, the establishment of a facility will be problematic due to the fact that the lands around the lake are private parcels.

Ilicalar natural hot water spring is foreseen to be an area where accommodation facilities are planned in line with the request of the people of the region due to its proximity to the town centre, the richness of infrastructure facilities, and the fact that it is a place that can be reached by public transport.

As a result of the research conducted based on all these situations, when the potentials of the 4 lakes subject to the research are evaluated, it is seen that all of them have their own unique characteristics. If ecotourism planning is to be made, it has been concluded that the priority ranking should be Ilicalar-Balpinar-Gerindal and Sariçiçek Lake.

Furthermore, based on the observations, interviews, and surveys, it can be stated that the residents of Bingöl endorse ecotourism, desire its development in the region as a source of employment and income, and possess the requisite awareness. Ecotourism undeniably serves as a spur for the social and economic development of local populations in today's more popularised globe. This research has been conducted to advance ecotourism planning in Bingöl province and to motivate institutions and organisations towards this objective.

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