



Respondents' Environmental Awareness of the Impact of the Development of Lake Burullus on Stimulating Domestic Tourism in Kafr El-Sheikh Governorate

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ABSTRACT

The research aimed to assess the environmental awareness of respondents regarding the impact of Lake Burullus' development on domestic tourism in Kafr El-Sheikh Governorate. Data were gathered from 504 participants through personal interviews. The results revealed that respondents favored domestic tourism due to its affordability and convenience. However, dissatisfaction persisted, even after Lake Burullus' development, primarily because of suboptimal utilization of resources in Kafr El-Sheikh, both internally and externally. Additionally, the study identified several factors contributing to domestic tourism stimulation, such as the lack of awareness among residents in tourist areas, inadequate security and medical services, and the limited role of the media. The governorate and localities displayed insufficient interest in site development and cleanliness. Visitors encountered numerous challenges during their visits, prompting the study to emphasize the importance of media in promoting environmental awareness among tourists, enhancing the quality of tourism services, and revitalizing hotels and tourism establishments.

INTRODUCTION

Kafr ElSheikh Governorate boasts six historical sites, including the prehistoric city of Butu, now known as Tal El-Pharaeen. Alongside these historical sites, the governorate offers seaside resorts for leisure, and there are potentially undiscovered Islamic sites hidden beneath the sand dunes. Furthermore, plans are underway to develop 2500 feddan on the northern sandbar for tourism purposes. Despite these attractions, the tourism potential of the governorate remains limited. Conflicting figures regarding the number of hotels, resorts, and rooms further complicate the assessment of its tourism infrastructure (Shaltout *et al.*, 2005).

In the last decade of the twentieth century, the economic and the developmental importance of Kafr El-Sheikh emerged due to the important elements it contains for investment and development that Egypt is witnessing in some areas (Abdel-Fattah, 2021), the most important of which are: the presence of one of the most important transport arteries in Egypt, which is the international coastal road that connects North

Africa with the continent of Asia, and its many tributaries that connect it to the internal road network in the governorate. The presence of extended beaches on the Mediterranean coast suitable for tourism investment and the presence of a natural reserve in the Burullus region, which was declared by virtue of the Presidency of the Council of Ministers Resolution No. 1444 of 1998 AD. The Burullus Reserve is located in the northwest of the Nile Delta, between the Damietta and Rashid branches, on an area of 120 thousand feddans (**Department of Environmental Affairs in Kafr El-Sheikh Governorate, 2008**).

Kafr El-Sheikh witnessed a civilized shift represented in tourism, industrial, agricultural, and human development. Moreover, when the governorate headed towards achieving comprehensive development, it was keen to preserve the many touristic resources available to it, especially in the northern coastal area of the governorate after the establishment of the international coastal road (**Department of Environmental Affairs in Kafr El-Sheikh Governorate, 2008**). The coastal environment in Kafr El-Sheikh Governorate is represented by the cities overlooking the Mediterranean Sea, with a length of 100km, which is the coastal strip of the governorate. These cities are Baltim, Al-Burj, and Mutobas (**Abdelaty, 2021**). The characteristics of the coastal environment are clearly evident in these areas, where the local population dominates the fishing profession and relies on the beach tourism as one of the main sources of income in the region. The coastal environment in the governorate is characterized by the presence of the black sand (**Department of Environmental Affairs in Kafr El-Sheikh Governorate, 2008; IDSC, 2011**).

The governorate has drawn up a plan to develop the northern coast, exploiting it through the establishment of distinct tourism and entertainment projects in partnership with the advisory committee of the Ministry of Tourism to study the nature of the region and its potential so that optimal forms of use can be determined. The northern coast of the governorate, overlooking the Mediterranean Sea and Lake Burullus, was divided into four main regions as follows: the first region (Birkat Ghalioun area), the second region (the coastal strip extending from the mouth of Rashid to the Burullus strait), the third region (the Burullus Lake area), and the fourth region (the coastal strip east of the Burullus Strait), (**Muhammad, 2006; Department of Environmental Affairs in Kafr El-Sheikh Governorate, 2008**).

The creation of economic development in the region leads to achieving a high and a rapid return without incurring huge investments. On the other hand, it is possible to benefit from the integration between projects without creating demographic pressure in the region or reducing investments in the infrastructure and the social capital. It also provides an appropriate alternative in the event of a decline in the coastline in the region. Thus, ensuring a social-economic balance while reducing the degree of risk to which the community is exposed to. There is no doubt that tourism services and the addition of accommodation energies represent a necessary and an effective investment in creating investment opportunities that lead to the provision of job opportunities in addition to the

importance of tourism investments in Ras El Bar region as a promising beach area, (Muhammad, 2006; El-Asmar, 2014).

The goals of tourism development in Kafr El-Sheikh are represented by the developmental goals at the national level in terms of rates of increasing the number of tourists and tourist nights, as well as tourism revenues and increasing accommodation capacity in terms of quantitative goals. For the objectives of tourism development in the governorate, they may differ from those at the national level in terms of the quality of the components. The tourism components and their development differ from one place to another depending on the circumstances of each region separately. The situation in Kafr El-Sheikh Governorate is more special due to its distinguished geographical nature and environmental overlap within. Environmental management is also carried out for the development of the northern coast of the governorate through coordination and follow-up between the concerned authorities. The Department of Environmental Affairs in the governorate of Burullus Nature Reserve is concerned with taking into account the environmental impacts and the environmental controls in accordance with Law No. 1994 and Law No. 102 of 1983 in the matter of natural reserves (**Department of Environmental Affairs in Kafr El-Sheikh Governorate, 2008; El-Adawy *et al.*, 2013**).

Among the main environmental problems were the use of land in a way that negatively affects the archaeological areas, the high level of groundwater, which affects the materials of the stone monuments, and air pollution at rates higher than permissible, which causes acid rain, which has a severe effect on eroding the monument or archaeological buildings, and the wind stirring up sand in desert areas, which collides with the antiquities and works on eroding and carving the antiquities. Besides, the Nile River is polluted due to sewage, industrial, and other wastes, the accumulation of garbage and solid waste at the entrances and outside the tourist areas, the resulting visual pollution, the emission of unpleasant odors, the breeding of insects in these areas, and the negative effects of these accumulations on the surrounding environment, in addition to the sanitation, as there are no sewage networks in the areas near the tourist areas, which leads to a rise in the groundwater level and thus the leakage of this water to the tourist impact; and finally, the climate change, as climate change leads to a rapid deterioration of the effects and their impact on the tourism activity in the region (**Department of Environmental Affairs in Kafr El-Sheikh Governorate, 2008**).

The northern region of Kafr El-Sheikh Governorate is characterized by a special natural formation that differs from the southern region of the governorate. In addition, the presence of Burullus Lake, which is one of the largest lakes in Egypt, and the lack of stability on the coast due to the influence of natural factors give this region a distinctive environmental pattern (**Muhammad, 2006; Shalby *et al.*, 2021**).

The local population has already tapped all of Burullus's resources to the point of exhaustion. If these resources are not to be continually depleted and wasted, sustainable resource management is vital. Other revenue streams must be found in order to offset any short-term income loss caused by the application of sustainable management.

Fortunately, Burullus' wildlife offers a tremendous amount of potential value. More and more people are realizing that wildlife resources may boost the local economy. Eco-tourism is currently quite popular all over the world. The protection of locations with high biological value and natural beauty, followed by the promotion of Burullus' environmental treasures, can combine to attract more and more tourists across the world, particularly wildlife enthusiasts from Europe and North America. This can only be accomplished with careful planning, which includes the creation or promotion of more varied activities (such as handicrafts, the instruction of locals to become tour guides and wildlife experts), the improvement of facilities and infrastructure, and the participation of local communities and authorities (**Shaltout *et al.*, 2005**).

The region around Burullus has long had a modest touristic economy. It is almost entirely based on the Egyptian visitors who come to Cairo and the Nile Delta in the summer, from mid-June to mid-September. The seaside town of Baltim is where the majority of this activity is focused. In the entire Kafr El-Sheikh governorate, there are just roughly 164 hotel rooms. The majority of Baltim's summer visitors stay in privately owned homes or short-term rentals of chalets and flats, which are not recorded in the official statistics. Despite the region's rich natural and cultural heritage, the Burullus wetland and the Delta as a whole have not yet fully realized their potential for international tourism. This is primarily a result of ignorance of the importance of these resources and their ability to draw specialized tours (**Shaltout *et al.*, 2005; Zingstra, 2013**).

The Burullus region's potential for international tourism is still mostly unrealized. This is mainly due to three aspects: 1) neither the locals nor the municipal authorities are aware of the economic importance of this industry or how it might advance their well-being; 2) all Islamic sites with historical and touristic value are still hidden beneath enormous sand dunes, and 3) security concerns related to stopping illegal smuggling along the coast (**Shaltout *et al.*, 2005; Zingstra, 2013**).

According to social research, 185,000 people live around the lake and interact with it every day (**Shaltout *et al.*, 2005**). Therefore, the research aimed primarily at studying the respondents' environmental awareness of the impact of the development of Lake Burullus on stimulating domestic tourism in Kafr El-Sheikh Governorate, and this goal can be achieved through a set of the following sub-objectives:

1. Studying some of the personal, social, and economic variables of the respondents.
2. A study of the respondents' environmental awareness of the development of Lake Burullus.
3. A study of the respondents' perception of the relationship between the development of Lake Burullus and the revitalization of internal tourism in Kafr El-Sheikh.
4. A study of the respondents' perception of the change in tourism services and activities in Kafr El-Sheikh Governorate.

5. Studying the correlation relationships between the studied independent variables and the total degree of the respondents' environmental awareness of the impact of the development of Lake Burullus on stimulating internal tourism in Kafr El-Sheikh Governorate.
6. Studying the regression relationships between the studied independent variables and the total degree of the respondents' environmental awareness of the impact of the development of Lake Burullus on the revitalization of internal tourism in Kafr El-Sheikh Governorate as an independent variables.

STUDY AREA

Kaf El Sheikh is regarded to be one of Egypt's governorates. It is located in the Nile Delta, on the western branch of the Nile, in the northern region of the nation. Kafr El Sheikh is the country's capital. A total of about 3,695,336 people are expected to live in the governorate's municipal divisions as of January 2023. There are occasionally both a markaz and a kism with the same name (**Wikipedia, 2023**).

MATERIALS AND METHODS

Procedural definitions

Respondents' environmental awareness of the impact of the development of Lake Burullus on stimulating domestic tourism in Kafr El-Sheikh Governorate

It is the awareness of the respondents of the importance of preserving the environment, especially Lake Burullus, preventing its pollution, rationalizing the use of its resources, and addressing the risks that it may be exposed to. This should be achieved for the safety and health of the individual and society to ensure the sustainability of development and encourage tourism internally sustaining a good life for the current and future generations.

Research hypothesis

- There is a significant correlation relationship between the total degree of the respondents' environmental awareness of the impact of the development of Lake Burullus on stimulating domestic tourism in Kafr El-Sheikh Governorate and some of the independent variables studied; and this hypothesis is tested in its zero form.
- There is a significant effect relationship between the total degree of the respondents' environmental awareness of the impact of the development of Lake Burullus on stimulating domestic tourism in Kafr El-Sheikh Governorate and some of the independent variables studied; and this hypothesis is tested in its zero form.

Comprehensiveness and sample

The comprehensiveness of this research is represented by all residents of Kafr El-Sheikh Governorate, whose number is about 3,695,336 people.

Due to the poor road conditions, most of them are dirt and agricultural roads, whose conditions are completely bad in the winter, and it is difficult to travel on them due to the rain, conflicting data, and the difficulty of obtaining data, whether from the concerned government agencies or from the residents in the center. A random sample was taken, and it consisted of 504 respondents overall.

Source of data and methodology

Data were gathered through personal interviews using a structured questionnaire. After ensuring the completion of all questionnaire items, the responses were transferred to pre-prepared tables. The collected data were then analyzed using various statistical methods, including the Pearson correlation coefficient, multiple correlation coefficient, t-test, f-test, and stepwise regression analysis. These analyses were conducted using the SPSS statistical analysis program to describe and interpret the study findings.

RESULTS AND DISCUSSION

1. The personal, social, and economic characteristics of the respondents

When the respondents were asked about their age at the time of conducting the study, it was found that the youngest age of the respondents was 15 years, and the oldest was 64 years, and the research results indicated that 58% of the respondents represented the largest percentage, whose age is less than 31 years. Since the youth group is the one that always notices the social change in the society and is the productive group, the contribution is clear in social and economic development, whether through the tourism resource or the other development fields. Where youth tourism helps in developing domestic tourism and raising the level of their tourism culture, it will lead to deepening their belonging to their country, increasing their awareness of their identity, preserving the heritage of their country, raising the level of their psychological health, developing their personality, getting to know new places and lifestyles, and intensifying their social relations.

When asked about their gender, the research results showed that 83.3% of the respondents were males due to the males enjoying a lot of freedom in eastern societies to move and travel and their desire to get acquainted, get close, and see everything that is unknown, in contrast to females who are limited by customs and traditions that prevent them from having the freedom to travel alone, move, and walk.

When asked about their marital status, we discovered that 52.4% of the respondents were married, whereas 47.6% were unmarried. Interestingly, none of the participants reported being divorced. This dataset highlights the stable marital status among the majority of respondents, a factor that plays a significant role in tourism, particularly in terms of entertainment.

The study showed that 77.8% of the respondents had children, numbering 392 out of a total of 504 respondents, as there are 240 of them were unmarried respondents, as shown in the previous results, and the remaining 112 do not have children yet, while

20.6% of the respondents have (4 - 7) children. The greater the number of children in one family, the lower the tourism demand, as the large number of children increases the obligations of the head of the family, and the number of children affects the cost factor.

The results showed the level of education, and since education has a major role in the measurement and development of societies, pre-university education represented the highest percentage, 41.3%, and middle school, 18.3%. It is noted that education in the study population is weak, especially at the university level (Collegiate), which represents 4.8%. This is due to the cultural and social heritage of the population of the study community, as it became clear that they do not care about education in the advanced stages and that it is limited to the pre-university stages. Therefore, the researcher believes that tourism can bring about a change in society through the introduction of educational and encouraging programs, where there is a positive relationship, so the higher the educational level, the higher the demand for tourism. This is due to the knowledge that the intellectual enjoys as an incentive that pushes the individual to learn about cultures and civilizational landmarks.

The results showed that the average monthly income of 1200–2400 pounds acquainted for 51.6% of the income of the majority, while it represents 25.4% of the lowest per capita income, which is 1200 pounds per month, which is the lowest monthly rate. It is noted that, most of the respondents have a limited level of income since this is related to the professions they work, which are related to the level of income of employees and workers.

Therefore, the researchers believe that society needs development from the official and non-official bodies in order for development to occur, and this can come through tourism and through the capabilities that characterize the study area, as it has all the elements of tourism. Through the development of tourism, a shift can occur at all levels of economic and social development in all its aspects, as shown in Table (1).

2. The knowledge of the respondents about the development of Lake Burullus

When queried about their awareness of the Lake Burullus development, the research findings revealed that 63.5% of the respondents were acquainted with the project. Additionally, when asked about the impact of the lake's development on their living conditions, 55.6% of the respondents disagreed, indicating that they did not perceive a positive impact. Similarly, when inquired about the development's effect on their surrounding environment, 63.5% expressed disagreement, suggesting that the changes in Burullus Lake did not affect the environment around them, remaining similar to a previous era, as depicted in Table (2).

Table 1. Distribution of the respondents based on their personal, social, and economic characteristics

Category	Number	%
Age:		
Lower category (less than 31)	292	58
Middle category (31– 47)	168	33.3
Higher category (more than 47)	44	8.7
Total	504	100
Sex:		
Male	420	83.3
Female	84	16.7
Total	504	100
Marital status		
Single	240	47.6
Married	264	52.4
Divorced	0	0
Widower	0	0
Total	504	100
Number of Children		
Lower category (less than 4)	392	77.8
Middle category (4–7)	104	20.6
Higher category (more than 7)	8	1.6
Total	504	100
Education level:		
Illiterate	56	11.1
Read & write	44	8.7
Elementary school stage	80	15.9
Middle School	92	18.3
Pre-university (Secondary)	208	41.3
Collegiate	24	4.8
Total	504	100
Average monthly income:		
Lower category (less than 1200)	128	25.4
Middle category (1200 – 2400)	260	51.6
Higher category (more than 2400)	116	23
Total	504	100

Source: computed from sample data.

Table 2. Distribution of the respondents based on their knowledge of the development of Lake Burullus

Response	Number	%
Hearing about the development of the lake		
Yes	320	63.5
No	184	36.5
Total	504	100
The impact of development on the living condition		
Yes	224	44.4
No	280	55.6
Total	504	100
The impact of development on the surrounding environment		
Yes	184	36.5
No	320	63.5
Total	504	100

Source: computed from sample data.

3. The trend towards domestic tourism

When the respondents were asked about their weekend preferences, it was discovered that 38.9% favored staying at home, constituting the majority. This choice aligns with the typical routine that characterizes the lives of Egyptians, even during leisure time. They either opt to relax and spend time with family or travel to nearby places or visit relatives, as indicated by 7.9% of respondents. Furthermore, travel entails financial expenses, which, as evident from the above, pose a challenge given the respondents' limited monthly income that barely covers their living expenses. Moreover, when the respondents were asked about their preference for the type of tourism, internal or external, 93.7% preferred domestic tourism due to the low costs, ease of movement, and absence of lengthy travel procedures such as in foreign tourism. Furthermore, when asked about their encouragement of domestic tourism in their country, it was found that 96% encourage domestic tourism within Kafr El-Sheikh, as it enjoys a cultural and civilized heritage and has access to many touristic areas, as shown in Table (3).

4. Satisfaction with domestic tourism

When the respondents were asked about their evaluation of the presence of tourism in Kafr El-Sheikh from their point of view, it was found that 57.1% of the respondents believe that 60% of the respondents believe that tourism is present in Kafr El-Sheikh, and this is due to the lack of optimal exploitation and marketing of its resources and components internally and externally. In addition to the accumulation of garbage in the streets, the spread of street vendors and beggars, the lack of improvement in the aesthetic appearance of touristic areas, and the irregularity of traffic. Moreover, when the respondents were asked about the extent of their satisfaction with tourism within their country, the results in Table (4) reveal a percentage of 48.4% of the

respondents who are satisfied with tourism in their country with a degree of 60%, followed by 41.3% as it needs many ingredients and attention to activate tourism.

Table 3. Distribution of the respondents based on their trend towards domestic tourism

Response	Number	%
Spend the weekend at		
The home	196	38.9
Sitting in cafes	164	32.5
Go on a trip	104	20.6
Other	40	7.9
Total	504	100
Preference for domestic tourism or foreign tourism		
Domestic tourism	472	93.7
Foreign tourism	32	6.3
Total	504	100
You encourage domestic tourism in your country		
Yes	484	96
No	20	4
Total	504	100

Source: computed from sample data.

It turns out that 42.9% of the respondents agree that the rental level of residential units is good in Kafr El-Sheikh, followed by it being poor at 35.7%, due to the somewhat high prices. Since some travelers do not prefer to stay in hotels when travelling compared to houses or apartments for several reasons, including privacy and psychological comfort, there is a need for some elements that are not found in hotels, such as staying for a longer period at a lower cost, and others, as shown in Table (4).

It was found that 64.3% of the respondents find that the treatment of the people in touristic areas is good, followed by a poor level of 23.8%. This indicates a change in the moral level of society and a lack of awareness, manner of dealing, and consensus. Therefore, researchers point out the importance of spreading awareness and education that is in the interest of the citizen. As good treatment is one of the important methods of bringing tourists to the study area, it is important to instill values of tolerance and security that reflect human positivity in society.

It was found that 51.6% of the respondents describe the level of performance of security and medical services as weak, which is a negative indicator, as the social security component is considered one of the most important social components and is the basic pillar of life in general and tourism in particular. For the level of medical services, health services must be provided in major hospitals that provide first aid and health services, train qualified medical personnel, and facilitate receiving treatment in the area.

It was found that 73% of the respondents agreed that, to some extent, tourism and recreational services in Kafr El-Sheikh meet the family's requirements in terms of privacy and safety.

When the respondents were asked about the occurrence of any development in domestic tourism in their country from their point of view, it was found from the research results in Table (4) that 92.9% of them did not agree with the occurrence of any development.

Table 4. Distribution of the respondents based on their satisfaction with domestic tourism

Response	Number	%
1. Evaluating the presence of tourism in Kafr El-Sheikh from your point of view:		
100%	16	3.2
80%	40	7.9
60%	288	57.1
40%	160	31.7
Total	504	100
2. Level of satisfaction with tourism		
100%	0	0
80%	52	10.3
60%	244	48.4
40%	208	41.3
Total	504	100
3. The rental level of residential units in touristic places		
Excellent	108	21.4
Good	216	42.9
Weak	180	35.7
Total	504	100
4. Treatment of the residents of tourist areas to tourists		
Excellent	60	11.9
Good	324	64.3
Weak	120	23.8
Total	504	100
5. Level of performance of security and medical services		
Excellent	8	1.6
Good	236	46.8
Weak	260	51.6
Total	504	100
6. Tourism and recreational services in Kafr El-Sheikh meet the requirements of the family in terms of the degree of privacy and safety		
Yes, to a large extent.	48	9.5
To some extent	368	73
Never at all	88	17.5
Total	504	100
7. The development of tourism in Kafr El-Sheikh in the recent period		
Yes	36	7.1
No	468	92.9
Total	504	100

Source: computed from sample data.

5. The price level of the following services in Kafr El-Sheikh Governorate

When the respondents were asked about their opinion on the level of service prices in Kafr El-Sheikh governorate, it was found from the research results shown in Table (5) that the level of prices for each of the following services is very high, including housing, transportation, restaurants, fees for parks and public gardens, amusement parks, medical services, goods and merchandise in shops, and tourist and recreational resorts, where the rates were 53.2, 42.1, 42.9, 44.4, 48.4, 48.4, 47.6, 54.8%, respectively. The results indicate a sharp rise in all levels of service prices in Kafr El-Sheikh, which impedes the movement of internal tourism in Kafr El-Sheikh, and that the development of Lake Burullus did not affect the reduction of the price level and it remained high as it is.

Table 5. Distribution of the respondents based on their opinion on the level of service prices in Kafr El-Sheikh Governorate

Service	Too high		High		Suitable	
	Frequency	%	Frequency	%	Frequency	%
Living	268	53.2	136	27	100	19.8
Transportation	212	42.1	176	34.9	116	23
Restaurants	216	42.9	188	37.3	100	19.8
Parks and parks fees	224	44.4	184	36.5	96	19
Amusements	244	48.4	152	30.2	108	21.4
Medical services	244	48.4	144	28.6	116	23
Goods and merchandise in shops	240	47.6	136	27	128	25.4
Tourist and recreational resorts	276	54.8	184	36.5	44	8.7

Source: computed from sample data.

6. Respondents' awareness of the importance of tourism

The most touristic areas

When the respondents were asked about the most touristic areas in Kafr El-Sheikh, their response was that it is the Baltim resort, as the coastal region north of the city of Baltim is one of the good nuclei for summer tourism activity due to the availability of relatively good ingredients for this activity, as the coast in this region is not exposed to the erosion operations that occur in other parts of the coast.

In addition to the natural elements like sand dunes and a beach with suitable depth, the site's proximity to Bogaz and Lake Burullus as a natural reserve, along with its abundant fish wealth, holds significant potential. Moreover, the anticipated rural setting provides an opportunity for integrating tourism with agricultural activities. This unique blend creates the possibility for the emergence of exceptional rural tourism, contributing to enhanced development rates in the region.

After the establishment and operation of the international road, it is expected that the relative importance of this region will increase, with the expectation that this tourism

activity will extend to other locations in the east. Moreover, since the existing Baltim area is located on the coast of Lake Burullus, about 2km south of the coastal area, the main direction of its extension is the southern direction, where the industrial area is being developed in addition to the new residential extensions adjacent to it.

Based on the foregoing, the idea of establishing the summer resort affiliated with the city of Baltim came within the framework of the city's territory in order to play the role of a tourist service centre for the summer tourist areas confined between the Mediterranean coast and the international road.

Upon asking the respondents about the role of the tourism media in stimulating the movement of domestic tourism, it was found that 62.7% did not agree with the role of the media, and that it did not contribute to any activation of the movement of domestic tourism in their country, as shown in Table (6). Furthermore, there is an absence or weakness of advertising and promotional activity for tourism in various media, often due to the limited availability of technological services.

It was found that most of the respondents (58.7%) have a good opinion of the citizens and resident cultures in Kafr El-Sheikh, while 35.7% of them have a poor opinion of the citizens and resident cultures in Kafr El-Sheikh. It is considered one of the problems that impede the development of the tourism sector due to the lack of knowledge and awareness among citizens.

68.3% of the respondents stated that the overall level of domestic tourism in Kafr El-Sheikh is good, while 31% believe that the level of domestic tourism is bad, as shown in Table (6).

Table 6. Distribution of the respondents based on their awareness of the importance of tourism

Response	Number	%
1. The role of the media in stimulating the movement of domestic tourism		
Yes	36	7.1
To some extent	152	30.2
No	316	62.7
Total	504	100
2. The culture of the citizen and the resident in Kafr El-Sheikh		
Excellent	28	5.6
Good	296	58.7
Weak	180	35.7
Total	504	100
3. The level of tourism in Kafr El-Sheikh		
Excellent	4	0.8
Good	344	68.2
Bad	156	31
Total	504	100

Source: computed from sample data.

7. Satisfaction with the level of tourism services

When asking the respondents about the level of tourism services, it was found that most of the respondents (52.4%) believe that the level of public facilities in the tourist areas is good, while 43.7% see the level of public utilities as bad, those who answered that the level of public utilities is excellent did not exceed 4%. This indicates that tourism needs, in order to fully perform its mission, a variety of infrastructure, such as roads, water drainage projects, drinking water, and means of transportation, in addition to the urban development of the main tourist attractions.

Thus, the increase in tourism movement requires the development of transport services and other infrastructure services, especially water sources, sewage networks, waste disposal systems, and communications, in order to meet the needs of the tourism sector, and this in turn needs to activate the role of tourism planning.

When the respondents were asked about their view of tourist establishments providing their services in the required manner, 58% of the respondents showed their refusal to provide tourism establishments with their services, as they assert that the workers in these establishments are not trained in a way that qualifies them for direct contact with tourists and they lack knowledge of the correct ways and methods to deal with tourists. In addition to the lack of interest in the cleanliness of touristic places, the lack of tourism police in some areas, and the lack of interest in the general appearance and dress of workers in the tourism sector with work requirements.

When the respondents were asked about the role of the governorate in developing and cleaning tourist sites, it was found that 88.9% of the respondents did not agree with the contribution of the governorate and localities in the development and cleanliness of tourist sites, which negatively affects the revitalization of domestic tourism and the creation of a suitable atmosphere for the tourist or visitors to meet their needs and make the streets a place for entertainment and entertainment in spare time.

When asked about their agreement to improve the level of tourism services after developing Lake Burullus, it was found from the research results that 90.5% of them do not agree with improving the level of tourism services after developing Lake Burullus and that the bad situation of tourist places is still the same.

When the respondents were asked about the preferred place to stay during their domestic tourism, it was found that 39.7% of the respondents preferred to stay with a relative or friend in order to reduce the percentage of tourism and travel costs, as shown in Table (7).

Table 7. Distribution of the respondents based on their satisfaction with the level of tourism services

Response	Number	%
1. The level of public facilities in the touristic areas		
Excellent	20	4
Good	264	52.3
Bad	220	43.7
Total	504	100
2. The opinion of the respondent on the provision of tourism facilities in the required manner		
Yes	48	9.5
To some extent	164	32.5
No	292	58
Total	504	100
3. Role of the governorate in the development and cleanliness of touristic sites		
Yes	56	11.1
No	448	88.9
Total	504	100
4. Improving the level of tourism services after developing Lake Burullus		
Yes	48	9.5
No	456	90.5
Total	504	100
5. Preferred place to stay		
Furnished Apartment	116	23.5
Own residence	184	36.5
At a relative or friend	200	39.7
Tourist resort	4	0.8
Total	504	100
6. The means of transportation to the tourist places inside Kafr El-Sheikh		
Private car	16	3.2
Rental car (during the outing)	108	21.4
Taxi "limousine"	204	40.5
Mass transit bus	176	34.9
Total	504	100

Source: computed from sample data.

8. The degree of availability of services in Kafr El-Sheikh governorate

When respondents were asked to share their opinions on the availability of services in Kafr El-Sheikh, the research results presented in Table (8) highlighted the services that were somewhat available. These included places of residence (hotels, furnished apartments), car rental offices, taxis (limousines), fuel stations and car services, parking lots, banking services (ATMs), grocery stores and buffets, hospitals, and health service centers. The respective percentages indicating availability were 54.8, 54, 58.7, 50,

54, 53.2, 49.2, and 40.5%. Restaurant service was equal between widely available and somewhat available at a rate of 42.9%, while their opinion regarding the availability of pharmacy services in Kafr El-Sheikh was abundant at a rate of 48.4%. It is clear from the results that the aforementioned services were not sufficiently available even after the development of Lake Burullus, which helps encourage domestic tourism in Kafr El-Sheikh, as shown in Table (8).

Table 8. Distribution of the respondents based on their opinion on the degree of availability of services in Kafr El-Sheikh Governorate

Services	Available in abundance		Fairly available		Unavailable	
	Frequency	%	Frequency	%	Frequency	%
Accommodation (hotels - furnished apartments)	60	11.9	276	54.8	168	33.3
Car rental offices	60	11.9	272	54	172	34.1
Taxis (limousines)	88	17.5	296	58.7	120	23.8
Gas stations and car services	164	32.5	252	50	88	17.5
Parking	144	28.6	272	54	88	17.5
Banking services (ATM)	140	27.8	268	53.2	96	19
Grocery stores and buffets	204	40.5	248	49.2	52	10.3
Restaurants	216	42.9	216	42.9	72	14.3
Hospitals and health services centers	200	39.7	204	40.5	100	19.8
Pharmacies	244	48.4	204	40.5	56	11.1

Source: computed from sample data.

9. The benefit to the people of the city from tourism

When the respondents were asked about the role of tourism in employing the local populace, 76.2% of the respondents acknowledged its contribution to curbing unemployment. They recognized that tourism generates jobs in various sectors, including hospitality, restaurants, and market activities. Additionally, it creates new professions like tourist guides and skilled cooks, leading to a decrease in unemployment rates and an increase in per capita income. moreover, when the respondents were asked about the financial possibility for every citizen to enjoy tourism, it was found by 85.6% of the respondents that they do not agree that there is a financial possibility for every citizen to enjoy tourism due to their low monthly income, as previously shown in the results displayed in Table (9).

Table 9. Distribution of the respondents based on the benefit to the people of the city from tourism

Response	Number	%
1. Tourism assistance in the employment of the people of the governorate		
Yes	384	67.2
No	120	23.8
Total	504	100
2. The material possibility for every citizen to enjoy tourism		
Yes	72	14.4
No	432	85.6
Total	504	100

Source: computed from sample data.

10. Problems facig tourists during the hiking period

When respondents were asked about the challenges faced by tourists during their visits to Kafr El-Sheikh, several significant issues were identified. The difficulty in finding suitable accommodation was noted by 64.3% of respondents. High accommodation costs were a concern for 77.8% of respondents, while 59.5% mentioned severe overcrowding and the concentration of services in the Corniche area. Moving to tourist spots proved challenging due to traffic congestion for 45.2% of respondents. Furthermore, 75.4% expressed concerns about the high prices of essential services such as transportation, food, and entertainment centers. Additionally, 72.2% indicated the absence of suitable beach seating for family privacy. Insufficient security, the risk of harassment (reported by 66.7% of respondents), lack of maintenance in public facilities, and poor hygiene (62.7%) were also highlighted concerns. Unfavorable climate conditions, particularly high humidity during the summer season, were cited by 61.9% of respondents. Furthermore, 60.3% mentioned the lack of diversity in tourist places, with most attractions concentrated in one area. These high percentages indicate persistent challenges in Kafr El-Sheikh's tourism sector, even after the development of Lake Burullus, as detailed in Table (10).

11. Proposals to develop domestic tourism in Kafr El-Sheikh Governorate

When asked for their suggestions to enhance internal tourism in Kafr El-Sheikh, respondents proposed several ideas, including the development and beautification of the lake Corniche, as well as its thorough cleaning. They emphasized the need for attention to public beaches and the development of specific villages like Al-Shakhlouba to transform them into tourist attractions. Respondents also highlighted the importance of promoting and advertising existing tourist sites. Additionally, they emphasized the significance of investing in infrastructure and public facilities throughout Kafr El-Sheikh Governorate to create a more appealing environment for tourists.

Table 10. Distribution of the respondents based on their views on the problems that tourists face during the hiking period

Problem	Frequency	%	Frequency	%
Difficulty finding a suitable place to stay	180	35.7	324	64.3
High costs of housing and accommodations	112	22.2	392	77.8
There is overcrowding, and most of the services are concentrated in the Corniche area	204	40.5	300	59.5
Difficulty moving to tourist places and traffic jams	276	54.8	228	45.2
High prices for basic services (transportation, food, entertainment centers)	124	24.6	380	75.4
There are no places to sit on the beach to suit the privacy of the family	140	27.8	364	72.2
Lack of adequate security and safety and exposure to harassment	168	33.3	336	66.7
Lack of maintenance of some public facilities and low levels of hygiene	188	37.3	316	62.7
Bad weather and high humidity during the summer	192	38.1	312	61.9
The lack of diversity of tourist places and their concentration in one area cause boredom	200	39.7	304	60.3

Source: computed from sample data.

Correlative relationships between each of the independent variables and the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on stimulating domestic tourism

The research results showed in Table (11) the existence of a significant direct correlation relationship at the significant level of 0.01 between each of the average monthly income and the educational status of the respondent as independent variables, each separately, and the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on stimulating domestic tourism as a dependent variable, where the values of the simple correlation coefficient reached 0.396 and 0.355, respectively. Furthermore, the existence of a significant direct correlation relationship at the 0.05 significant level between each of the awareness of the importance of internal tourism for the respondent as an independent variable and the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on stimulating domestic tourism as a dependent variable, where the value of the simple correlation coefficient was 0.220. The result of this relationship is that the independent variables and the dependent variable move in the same direction. This relationship agrees with the indicative logic, which indicates that each of the variables correlates in movement with the dependent variable.

There was a significant inverse correlational relationship at the 0.05 level between satisfaction with domestic tourism, satisfaction with the level of tourism services as independent variables each separately, and the total degree of environmental awareness of the respondents of the impact of the development of Burullus Lake on stimulating domestic tourism as a dependent variable, where the values of the simple correlation coefficient were 0.190 and 0.205. The effect of this relationship is obvious when the independent variables and the dependent variable move in the opposite direction.

Based on the previous result, the null hypothesis between the previous variables can be rejected, which states that "there is no correlation between each of the previous independent variables and the dependent variable."

Table 11. Values of the correlation coefficients between each of the variables studied and the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on domestic tourism

Independent variables	Correlation coefficient values	Level of significant
Age	-0.005	Non-significant
Average monthly income	0.396 ^{**}	0.01
Number of children	-0.045	Non-significant
Educational Status	0.355 ^{**}	0.01
Satisfaction with domestic tourism	-0.190 [*]	0.05
Respondents' awareness of the importance of tourism	0.220 [*]	0.05
Satisfaction with the level of tourism services	-0.205 [*]	0.05
The benefit to the people of the city from tourism	0.122	Non-significant
Proposals to stimulate domestic tourism	0.154	Non-significant
Problems that tourists face during the hiking period	0.066	Non-significant
The trend towards domestic tourism	0.003	Non-significant

^{**} Correlation is significant at the 0.01 level (2- tailed). ^{*} Correlation is significant at the 0.05 level (2- tailed).
Source: computed from sample data.

The multiple regression relationships between the studied independent variables and the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on stimulating domestic tourism

This aspect deals with the effective relationships between each of the variables studied on the one hand and the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on domestic tourism as a dependent variable on the other.

To estimate the effect of the independent variable on the total degree of the respondents' environmental awareness of the impact of the development of Burullus Lake on domestic tourism as a dependent variable, the stepwise multiple regression analysis method was used. The results of the analysis showed (4) linear models for the multiple regression analysis. The first model included one independent variable, which was the average monthly income. It was found that there is a multiple correlation between this independent variable and the total degree of environmental awareness of the respondents about the impact of the development of Lake Burullus on domestic tourism as a dependent variable, where the value of the multiple correlation coefficient was 0.396, which is a significant value at the probabilistic level of 0.01, and the (F) ratio reached 23.096, and it was found that this variable is responsible for explaining 15% of the total variation that could occur in the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on domestic tourism.

At the same time, the statistical results show that the value of the partial regression coefficient (B) for the average monthly income variable amounted to 0.001, which is a positive value that reflects the existence of a significant partial regression relationship at the probabilistic level of 0.05, as the value of (T) reached 4.806. This finding suggests that with every one-unit increase in the average monthly income of the respondents, their overall environmental awareness regarding the impact of Lake Burullus development on domestic tourism increases by 0.001 points. Conversely, a decrease in average monthly income is associated with a decrease in environmental awareness. This relationship is influenced by the dynamic interactions among the other internal independent variables considered in the model, as detailed in Table (12).

Regarding the second regression model, it included two independent variables: the average monthly income and the educational status of the respondent. It was found that, there is a multiple correlation relationship between these two independent variables and the total degree of the respondents' environmental awareness of the impact of the development of Lake Burullus on domestic tourism as a dependent variable, where the value of the multiple correlation coefficient was 0.484, which is a significant value at the probabilistic level of 0.01, the (F) ratio reached 18.844. Moreover, it was found that these two independent variables are responsible for explaining 22.2% of the total variation that could occur in the total degree of environmental awareness of the respondents about the impact of the development of Lake Burullus on domestic tourism as a dependent variable.

At the same time, the statistical results show that the values of the partial regression coefficient (B) for the two independent variables between the average monthly income and the educational status of the respondents amounted to 0.001 and 0.122. They are two positive values that reflect the existence of two significant partial regressive relationships at the probability level 0.05 and 0.01, where the value of (T) reached 4.181, 3.530. The outcomes of these findings is that by increasing the average monthly income and the educational status of the respondent by one degree, the total degree of environmental awareness of the respondents of the impact of the development of Lake

Burullus on domestic tourism increases by 0.001, 0.122 degrees, and vice versa, in light of the dynamic interaction between the rest of the internal independent variables in this model, as shown in Table (12).

The third regression model included three independent variables, namely the average monthly income, the educational status of the respondent, and the satisfaction with domestic tourism. It was found that there is a multiple correlation between these independent variables and the total degree of the respondents' environmental awareness of the impact of the development of Lake Burullus on domestic tourism as a dependent variable since the value of the multiple correlation coefficient was 0.538, which is a significant value at the probabilistic level of 0.01, as the (F) ratio reached 16.596. It was also found that these independent variables are responsible for explaining 27.2% of the total variation that could occur in the total degree of environmental awareness of the respondents about the impact of the development of Lake Burullus on domestic tourism as a dependent variable.

Simultaneously, the statistical results show that the value of the partial regression coefficient (B) for the independent variables between the average monthly income, the educational status of the respondent, and the satisfaction with domestic tourism amounted to 0.001, 0.105, and 0.404, respectively. They are positive values that reflect the establishment of a significant partial regression relationship at the probabilistic levels of 0.05 and 0.01, where the value of (T) reached 4.770, 3.123, and 3.082. The outcome of this finding is that the average monthly income, educational status of the respondent, and satisfaction with domestic tourism increased by 0.001, 0.105, and 0.404 degrees, and vice versa, in light of the dynamics of interaction between the rests of the internal independent variables in this model, as shown in Table (12).

Regarding the fourth regression model, it included four independent variables, namely the average monthly income, the educational status of the respondent, satisfaction with domestic tourism, and the respondents' proposals to stimulate tourism. It was found that there is a multiple correlation between these independent variables, and the total degree of environmental awareness of the respondents about the impact of the development of Lake Burullus on domestic tourism as a dependent variable, where the value of the multiple correlation coefficient was 0.565, which is a significant value at the probabilistic level of 0.01, and the (F) ratio reached 1.213, and it was found that these independent variables are responsible for explaining 29.7% of the total variation that could occur in the total degree of environmental awareness of the respondents with the impact of the development of Lake Burullus on domestic tourism as a dependent variable.

At the same time, the statistical results show that the value of the partial regression coefficient (B) for the independent variables between the average monthly income, the educational status of the respondent, the satisfaction with domestic tourism, and the proposals of the respondents to stimulate tourism amounted to 0.001, 0.106, 0.344, 0.317, where the value of (T) was 5.122, 3.195, 2.615, and 2.304. This result resulted in an increase in the average monthly income, the educational status of the

respondent, satisfaction with domestic tourism, and the proposals of the respondents to stimulate tourism by 0.001, 0.106, 0.344, and 0.317 degrees, and vice versa, in light of the dynamics of interaction between the rest of the internal independent variables in this model, as shown in Table (12).

Table (12). Regression relationship between each of the independent variables and the total degree of environmental awareness of the respondents of the impact of the development of Lake Burullus on stimulating domestic tourism as a dependent variable

Results Model	Multiple correlation coefficient	Adjusted determination coefficient	Ratio (F)	T	Partial regression coefficient (B)
Model (1) 1- Average monthly income	0.396	0.15	23.096	4.806**	0.001
Model (2) 1- Average monthly income 2- Educational Status	0.484	0.222	18.844	4.181** 3.530**	0.001 0.122
Model (3) 1- Average monthly income 2- Educational Status 3- Satisfaction with domestic tourism	0.538	0.272	16.596	4.770** 3.123** 3.082**	0.001 0.105 0.404
Model (4) 1- Average monthly income 2- Educational Status 3- Satisfaction with domestic tourism 4- Proposals to stimulate tourism	0.565	0.297	14.213	5.122** 3.195** 2.615** 2.304**	0.001 0.106 0.344 0.317

Source: computed from sample data.

CONCLUSION AND RECOMMENDATIONS

- Developing the northern coast of the province through a plan to exploit it through the establishment of distinct tourism and entertainment projects in partnership with the Advisory Committee of the Ministry of Tourism to study the nature of the region and its potential so that optimal forms of use can be determined.

- Preventing pollutants or minimizing them as much as possible, which are discharged from factories and sewage stations and are considered the largest pollutants flowing into the Nile River, in cooperation with the competent authorities.
- Work to solve the problem of garbage gatherings at the entrances and exits of cities, tourist and archaeological villages, and marinas.
- Improving the quality of life of the host community.
- Protection of tourist, natural, and environmental centers within the country.
- Respecting the cultural heritage of society, preserving values, traditions, and customs, and contributing to understanding cultural relations.
- Emphasis on long-term touristic plans.
- Developing tourism as a permanent source of income requires the consolidation of tourism concepts and awareness of them among the government and society.
- Provide high-quality tourism information and experiences in an appropriate manner for tourists and visitors.
- Development, additions, and beautification of areas or cities that are suitable for tourism development by providing them with basic public facilities.
- Continuous preservation of the environment and reserves and the provision of continuous monitoring of the natural and tourism components as well.
- Monitoring tourism projects and their impact on the environment and evaluating their environmental impact.
- Optimal utilization of natural and human resources.

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الملخص العربي

الوعي البيئي للمبحوثين بأثر تطوير بحيرة البرلس على تنشيط السياحة الداخلية بمحافظة كفر الشيخ

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أستهدف البحث دراسة الوعي البيئي للمبحوثين بأثر تطوير بحيرة البرلس على تنشيط السياحة الداخلية- محافظة كفر الشيخ. وتم جمع البيانات من إجمالي 504 مبحوث من خلال إستمارة الاستبيان بالمقابلة الشخصية. تشير النتائج تفضيل المبحوثين للسياحة الداخلية وذلك لإنخفاض التكاليف وسهولة التنقل، ولكن تشير النتائج عدم رضاهم بشكل كبير عن السياحة الداخلية حتى بعد تطوير بحيرة البرلس وذلك لعدم الإستغلال الأمثل للموارد الموجودة بكفر الشيخ ومقوماتها داخلياً وخارجياً، وأيضاً قلة الوعي بأهالي المناطق السياحية، وضعف في مستوى أداء الخدمات الأمنية والطبية، وضعف الدور الإعلامي الذي يساهم في تنشيط حركة السياحة الداخلية، وأتضح أن مستوى المرافق العامة سيئة، وان المنشآت السياحية لا تقدم خدماتها على الوجه المطلوب، وعدم اهتمام المحافظة والمحليات بتطوير ونظافة المواقع السياحية، وأن هناك العديد من المشاكل التي تواجه الزائرين خلال فترة التنزه، ولذلك توصي الدراسة أهمية دور الإعلام في تعزيز الوعي البيئي لدى السياح والتنظيف الذي ينصب في مصلحة المواطن، تحسين نوعية الخدمات السياحية وإعادة الاعتبار للمؤسسات الفندقية والسياحية.