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Natural Ingredients and their Impact on the Development of Eco-Tourism in Najaf Governorate

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ABSTRACT

Developing ecotourism is one of the goals of Comprehensive Economic and social development. The importance of this tourism is manifested because of its ability to preserve natural areas and invest them optimally for the great benefit of all parties involved in the tourism process, as well as preventing the adverse effects of tourism, such as the destruction of Environmental Quality and distortion of natural areas. Najaf governorate has multiple and diverse natural tourist attractions suitable for practicing ecotourism activity, such as rivers, marshes, the Najaf Sea depression, which is a natural lake, Springs, Springs, and desert, as well as parks, landscapes, and the picturesque atmosphere of the orchards that characterize the governorate, which provide tourists with plenty of room to practice activities and events related to ecotourism.



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INTRODUCTION

Countries around the world, especially tourist countries, have been interested in ecotourism as clean tourism works to preserve natural areas and tries to sustain them environmentally

through the optimal exploitation of tourism components.

The practice of ecotourism activities in natural tourist attractions is formed by preserving Natural Resources. An attempt to sustain them in tourism to reduce environmental pollution and

repair waste and address it in those places was the main reason that prompted the researcher to study this topic, as the study area has multiple and diverse natural ingredients suitable for practicing ecotourism activity.

Chapter One: Tourism and Tourism Environment

First: The concept of Tourism

It is one of the social phenomena that emerged due to the development of industrial societies and contributed to the development of cultural and civilizational relations between countries and cultures. It also plays a vital role in the economies of developed and developing countries and is directly related to the economic and social development and the achievement of well-being and prosperity of societies (Burkat & Medlik, 1967: 3); the growth of tourism leads to the growth and prosperity of (52) industry and service therefore, tourism is "the movement of individuals from one place to another for different purposes and a period exceeding 24 hours and less than a year (Bazzou, 2009:140).

The International Academy of Tourism International has defined it as : (a set of movements and associated activities resulting from a person moving away from his native land to achieve the desire to move and change to satisfy the needs of the tourist) (Daniel, 2006: 9), and a tourist is that person who moves outside a store his original residence is for any reason other than material gain or study for more than 24 hours, and if less than that, it is considered a destination for hiking (Al-Halafi, 2021:6). The tourist is defined in the Oxford Dictionary as an individual traveling for pleasure (Thompson, 1993:15).

Second: The concept of Environment

Ecology is defined as the science that is concerned with the study of the natural Environment with its organic and inorganic elements (Al-Narayana, 2001:22). In contrast, it is defined as the study of living organisms and their relationship to each other one hand and their external Environment on the other (al-

Saadi, 2006: 19), the Environment is also defined as the framework in which man lives and obtains his life elements and practices his various productive and consumer activities, and this framework consists of multiple pieces that interact with each other, which leads to the occurrence of broad environmental changes that have their drawbacks and its pros (al-Jawahiri, 2010:255).

The United Nations has defined the Environment as the physical and biological system in which humans and other organisms live, which is an integrated whole and includes interrelated and interrelated elements (al-Azzawi, 2010:94).

Third: The relationship between the Environment and tourism

The Environment is the basis on which tourism activity is based; a clean environment is a guarantee for new tourism, as the development of Environmental Resources leads to the continuation and growth of tourism activity; in addition, it is one of the most important factors affecting tourism investment in the future (Michael, 2003:80, the United Nations Environment Programme of the United Nations Organization signed with the World Tourism Organization(W.T. O a joint declaration of consensus between Tourism and the Environment in 1982 and formed a permanent committee (committee on tourism and the Environment) the aim of its formation is to spread environmental awareness among the peoples of the countries of the world. The World Tourism Organization held its conference in 1997 in Istanbul, Turkey, under the slogan (tourism is a leading sector in the Twenty-First Century to create jobs and protect the Environment).

In the year (2000), the world celebrated World Tourism Day under the slogan (technology and NatureNature are challenges for tourism at the beginning of the Twenty-First Century), in the framework of recognizing the importance of technology in tourism activity as well as the importance of preserving NatureNature and the Environment as a basis for the continuation of tourist communication and it is impossible to achieve (tourism development only through the preservation of natural environmental

components (Al-Ansari, 2008: 193-194).

Fourth: The concept of ecotourism:

It is a tourism that requires traveling to relatively stable natural areas for the specific purpose of studying, admiring, and enjoying the landscapes, their plants, and wildlife, as well as any emerging cultural manifestations (whether from the past or present time) in those areas, a relatively recent term came to express a new type of environmentally friendly tourist activity, practiced by man preserving the natural and civilized innate heritage of the Environment.

The World Environment Fund has defined it as: "traveling to natural areas that have not been affected by pollution and their natural balance has not been disturbed to enjoy their landscapes, plants, wild animals and civilization in the past and present. Ecotourism is a process of education about the components of the Environment. It is a tool to familiarize tourists with the Environment and adapt to it (Shehata, 2002: 110-120)

It should be noted that it is necessary to distinguish between natural tourism and ecotourism. Birth tourism is a type of tourism that depends mainly on visiting natural areas, as is ecotourism. However, it may affect the resources available in these areas, whether from plant or animal sources. Therefore, it does not consider the issue of Environmental Conservation, which may significantly affect the area. Ecotourism came to minimize these effects, meaning that ecotourism went from the adverse impacts of natural tourism.

Fifth, the characteristics of ecotourism are as follows:

1. Clean green tourism, based mainly on ecology and nature, wants everything beautiful, pleasant, and valuable in tourist activity without being harmful, disruptive, or spoiling at the ecological, social, and cultural levels.
2. An activity combining originality in the natural and cultural heritage and modernity in its morals and values, urbanization creates a beautiful

inhomogeneity, compatibility, and consistency pattern. (Al-Khudairi, 2006 :47)

3. Responsible tourism, i.e., tourism governed by awareness, reason, sense of responsibility, and not just instincts. It preserves the species, protects organisms from extinction, restores humanity to protect and preserve wildlife, and increases its elements of natural beauty.
4. It has a multi-faceted economic return and return that combines the tangible material aspect with the moral and ethical part of trying to preserve the integrity of the Environment. | (2008: 4 Amanda) because it is a sustainable tourism that replenishes its resources. It is not depleted by heavy use, and its results are in the interests of both national tourism and the Environment.I

Sixth: The objectives of Environmental Tourism Development and its impact on the province of Najaf:

The development of ecotourism begins when people begin to appreciate the importance of Tourism and its benefits at all economic, social, and cultural levels.

1. Economic objectives: ecotourism is considered a source of development for the governorate by providing infrastructure services, attracting foreign exchange, and increasing income levels for individuals and the state, both from the tourism sector and the sectors supporting tourism (Ansari, Kamel, 2018: 29), as well as paying attention to the elements of ecotourism attractions characteristic of Najaf governorate and working to develop them.
2. Social objectives: these objectives are of great importance as they provide recreation and entertainment for tourists and residents, help to develop public places and services in the countries of tourist destinations, increase opportunities for cultural exchange, and develop cultural awareness of the Environment between both the host community and the visitor.
3. Political and cultural goals: these goals serve to spread cultures, communicate between peoples, and strengthen and develop political relations between states and

governments (Abdullah, 2015: 77-78).

4. Environmental objectives: these objectives work to preserve the Environment, prevent its degradation, rationalize its use, and establish strict protection measures.

Chapter Two

The components of ecotourism in Najaf Governorate

Many environmental components have to do with tourism and vary in proportion to the multiplicity of members of the environment itself (International Conference on Sustainable Tourism, 1994: 16-20).

Najaf province is characterized by a variety of parts of ecotourism such as rivers, swamps, Springs, the Najaf sea depression, the desert, parks, and picturesque landscapes of orchards on the sides of the rivers, where tourists can practice ecotourism activities such as nature observation, hiking from natural areas, nature photography, bird watching, stargazing, diving, and other activities.

For these tourist activities to be carried out environmentally, they must meet three criteria:

1. These are carried out in nature.
2. These activities.
3. These are the environment.
4. These activities should provide been.
5. These are cultural, economic, or social.

First, the geographical location of Najaf governorate geographical location has a multiple impact on tourism; the closer the site is to the sources of tourist arrivals so that it can be reached quickly and at low costs, the greater the demand for it, as well as the location from the supply circles, determines the type of climate and then the wild and non-wild flora and fauna, as well as the length and shortness of the day, and this spatial character has an impact on the type and nature of tourist traffic and seasonality.

Najaf province is located between two latitude circles (50 29° - 21 32°) North and two longitude lines (50 42° - 44 44°) east, as it is located at the southwestern tip of Iraq and takes a

geographical extension northeast-southwest, its western edges enter the eastern borders of the plateau. In contrast, its eastern edges are located within the sedimentary plain. Najaf Al-Ashraf province, in its extension, takes shape more like a rectangle, whose short side is the southern border with the kingdom of Saudi Arabia; the area of Najaf Al-Ashraf governorate (28824 km²) is one of the governorates of the Middle Euphrates region (located in central Iraq) surrounded by the governorates of Karbala and Babylon from the North, Qadisiyah and Muthanna governorates from the East, Anbar Governorate from the West and the international border with Saudi Arabia from the south, as well as it is one of the southern Badia governorates.

Second: The climate and its elements:

The climate is the most influential tourist data on tourism and the most potent attraction for tourists (Albegg & Others, 1988: 6). It is also of paramount importance in determining the length of the tourist season in tourist areas and the most vital elements of the climate influence on tourism are the thermal limits - high or low – and the number of hours of sunshine, wind, relative humidity, and precipitation, and their combined effect is directly manifested in the extent 27 M° and relative humidity of 30 – 70 %) beyond these two limits, the feeling of discomfort and endurance begins to be felt, " (al – Bassani, Pushkar, No. 21, 2015: pp. 213-214). the following is a review of the most critical climatic characteristics related to tourist activity in the study area Table (1).

The table indicates that the province is characterized by a climate that can be taken advantage of in tourist attractions, such as the clear sky, the lack of clouds, the lack of relative humidity, and the large angle of solar radiation, which is closer to vertical, are all encouraging factors for tourism, but the high temperatures and significantly in the summer make it a repellent area for tourists. Therefore, tourism is encouraged in winter and spring, as the sun's heat can be invested as a winter product.

Wind speed(M/s)	The falling rain	Relative humidity	heat	The great heat	Microth ermia	Actual brightness of sunlight (hour / day)	The month
1,10	23,75	67,00	11,07	16,90	6,10	6,20	January
1,60	14,80	58,00	14,00	20,00	8,20	7,20	February
1,90	16,17	47,00	18,70	25,40	12,40	7,90	March
1,90	16,99	41,00	24,80	31,50	18,10	8,30	Nissan
2,00	5,03	31,00	31,20	38,30	23,70	9,40	Ayyar
2,50	0,00	24,00	35,80	43,30	27,70	11,10	June
2,50	0,00	22,00	38,10	45,30	29,80	11,40	July
1,90	0,00	24,00	37,50	45,00	29,30	10,80	August
1,50	0,10	29,00	33,10	41,30	25,70	9,90	September
1,20	4,80	40,00	28,40	34,80	20,30	8,10	October
1,00	21,65	56,00	18,10	24,70	12,60	7,00	November:
1,00	24,21	65,00	12,80	18,70	7,80	5,80	December
1,68	127,50	42,00	25,30	32,09	18,48	8,50	Annual rate

(Table1) Monthly rates of climatic elements in Najaf governorate for the period between (190-2021)

Source: Ministry of Transport, Iraqi Weather Authority, Climate Department, unpublished data, Baghdad, 2022 AD.

Third: Water resources in Najaf Governorate

Water resources are an essential tourist attraction factor, as rivers are used for tourist trips, in addition to the seas being used for sports tourism and other various types of tourism. Mineral water and springs are also essential factors in tourist attraction for treatment and hospitalization.

Critical water phenomena are thus preserved

1- The river network in Najaf Governorate:

The Euphrates River and its branches represent the river network in the Najaf Governorate, the two banks of Kufa and Abbasiya, and the streams branching off from them. It is considered the leading water resource in the study area. The Kufa shore enters the governorate after (10 km) from the branching point of Shatt al-Hindiyya (the main course of the Euphrates River) at a distance of (2 km) south of the city of Kifl. Its length within the study area is (75.2 km), and the number of its

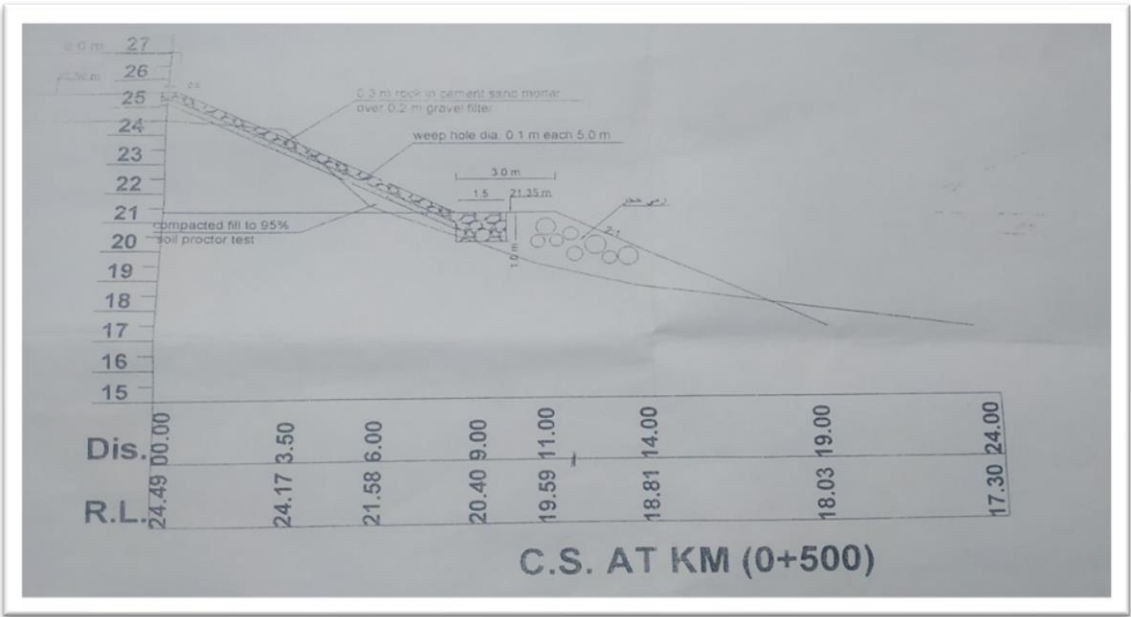
primary and secondary branches within the administrative borders of the governorate is (76) branches with a total length of (434.07 km). In comparison, Shatt al-Abbasiyah enters the governorate at a distance of (8 km). From the branching point, the length of its main course within the study area is (28 km), and (13) branches branch out from it, with a total length of (177.1 km). (Al-Ta'i, Al-Zamili, 2022: 709), and they were spread on the right bank of the Shatt of Kufa (slums). And violations (represented by cafes, rest houses, and small popular restaurants called the Shatt al-Kufa Corniche) were removed in 2018 AD as part of a campaign to remove violations in the Ministry of Water Resources, protect the river basin, and ensure that water quotas reach agricultural lands.

- Shatt al-Kufa cladding project:

The project consists of filling and covering the shoulders of the river with stone in an engineering manner (Figure - 1-). It consists of three stages, the first from the old concrete Kufa Bridge to the iron bridge for cars, with a distance of (500 m.t.) for both sides, and the second phase from the iron bridge for vehicles to (1150 m.t.) for both sides, and the third phase starts

from the end of the second phase up to Imam Ali (peace be upon him) Bridge. The project is in the

second implementation phase, with a completion rate of (80%).



(Figure 1) Plan of the cladding and pavement of Shatt Kufa

Source: Ministry of Water Resources, Implementation Department, Department of Studies and Designs, Kufa Municipality

Directorate, project under implementation, unpublished data, 2024 AD.



(Photo 1): Shatt al-Kufa cladding project

Source: Field study: Wednesday: 5/3/2023.
Work on the project started in 2013 and stopped in 2015 due to the financial crisis (ISIS occupation). It resumed work on the project in

2021. currently, the project is suspended until the completion of additional disclosure procedures for the project (Personal Interview, Hadi haqi Ismail: Wednesday:3/5/2023).

The project aims to protect the river shoulders from erosion as a result of high and low water levels to ensure that there is no encroachment and the establishment of slums on the shoulders of the river and to form a beautiful, organized, and integrated tourist facility that serves the people and visitors of the holy city of Kufa.

2- *Najaf sea depression:*

The Najaf sea takes a transitional position between the western plateau and the sedimentary plain, as the Najaf sea and the surrounding lands extend a longitudinal distance of (40 km) from northwest to Southeast and an average width of (10,5 km) approximately, (Abu Hajar, 2011 :111,) as the area of the Najaf sea depression and adjacent lands is estimated (421,9 km²) and the city of Najaf overlooks from its high position on the Najaf sea depression itself, and standing at the head of the plateau can watch a beautiful view orchards, palms and plantations (Hussein and juweihel, 2004 :307) the Depression has natural and human features and data that can be invested in tourism, the most important of which is that the area enjoys a prominent location of water bodies as well as the biodiversity present in the Depression of birds, fish, wild and aquatic plants, which can be invested in the establishment of nature reserves, which encourages tourists to visit them (Kamel and others, the seventh year, the first issue : 193-195), agricultural lands and palm groves that add a breathtaking beauty to the area, the Depression also surrounds the Tarat area, which is characterized by the presence of the floor is gem - shaped and has attractive shapes.

As for the location, the Najaf sea depression has location advantages resulting from its proximity to the city of Najaf, as well as its proximity to the shrine of Imam Ali (as) and the Wadi Al-Salam cemetery, which is characterized by the density of visitors and arrivals to it, and the Depression is characterized by the factor of ease of access, after connecting it with paved roads, the most important of which is the circular road that facilitated the process of access to the Depression.

3- *Hor son of a star:*

Hor Ibn Najm is one of the natural ingredients in Najaf governorate that can be developed in the tourist side, and it is located in the north-eastern side of the governorate and takes this location as a crossroads between three governorates, Najaf, Babylon and Qadisiyah, where it is bordered to the north by Al-Kafil, to the East by the vanguard, to the South by Al-shanafiya, to the West by Abbasiya district and towards freedom, and hor is surrounded to the North and East by the eastern Euphrates trocar, and the area of HoR is 27 thousand dunums and is located in منخفضة low fed through puncture water and a percentage of river water, In 2007, Al-Hor was included in the plan of the Ministry of water resources to revive the marshes, and the HOR Ibn Najm depression is characterized by biological diversity of both animal and plant species, where there are on the low كبيرة large quantities of animals, dairy, reptiles, birds, diverse plants, as well as migratory birds that come to the region in winter (Al-Shadidi, al-Hadi, No. 57, and also 2020 : 369) the importance of the river is also highlighted in late winter and early spring, when the water levels rise and turn into large areas of water bodies, and thus it has a tourist attraction, and the hobby of bird hunting is also an attraction for fishing enthusiasts, as in winter the region is visited by significant and diverse flocks of migratory birds, and fishing is active at these times of the year.

4-*groundwater in Najaf governorate:*

The number of wells in it reached (42 wells) with a production rate of (4-6 L / S) and a salinity capacity of (3000 – 6000 pmm) in 2018, (Central Bureau of Statistics, 2019 : 8), and well water is an alternative to rivers, especially in dry desert areas, so wells are often used in the western plateau region (west of Najaf governorate), so the drilling area of wells must be expanded to revive the part economically through agriculture and the establishment of economic projects, and the desert area in Najaf governorate is characterized by the presence of many springs of cold and hot mineral water as in other regions of Iraq, it has been discovered

since ancient times and used in the treatment of joint pain and skin diseases are caused by swimming in these springs, and one of the oldest of which is the eye of said Master, Shajee , Al-Rahba, the most famous of which is Ain Water of Imam Hassan (Iahmoud, 2011 :90), and what distinguishes groundwater in these desert areas is that it is suitable for various uses, and this is what gave it great importance, unlike the springs of the sedimentary plain, as it is not eligible for drinking because of its salinity (Salman, 2013 :281), so this area must be invested through agriculture, the establishment of economic projects, therapeutic resorts, nature reserves and the provision of various tourist services, making it an economically and touristically integrated area and thus will be a source of tourist attraction .

Fourth: the natural plant in the province of Najaf Al-Ashraf :

The wild plant is an attraction for tourists, as it has a clear role in their psyche and satisfies their various desires by visiting wild places and protected environments and learning about the different characteristics it contains.

The natural vegetation in Najaf governorate is concentrated in two main areas (sedimentary plain – The western plateau) in the area of the sedimentary table, the natural plant spreads on the banks of rivers and irrigation streams in the form of forests, locally called forests, of the most important types (reeds, sedge, Western shrubs, Willow, elderberry, blink) as well as riverine plants such as (shanbalan "shalt", Nile flower), as for the plants of the western plateau, they are resistant to drought and salinity due to the nature of the region and are divided into **annuals** : (such as rafting, Wormwood, larch , Al-shuwail), as well as other plants such as (Moss, thyme, wild Sidr, Sama, hanipra, jadad, as medicine, henkaris, noir, shafallah, jareed, bakhtari, Duaa, khazama, hanalal, wild Cress, rabhala, Hermel, ka'ab, jadha, Suleiman, jijlawar) (Al-Halfi, 2021 : 39-40), as this diversity of the natural plant in the study area affects the aesthetics of the site and therefore the psyche of the tourist because thus, the natural plant is an attraction for tourists because of its health,

biological and climatic benefits, as well as aesthetic benefits, some of which can be used to make herbal medicines .

Fifth: Badia area:

Najaf governorate has attractive tourist geomorphological features in the Badia region, where the shape of the land in the Badia is characterized by its diversity, complexity, and formation, as it gives it beautiful landscapes that contribute to its tourist enrichment. Najaf governorate includes a large desert that can be a destination for tourists interested in desert tourism if its resources and potential are used optimally. One of the most important of these potentials is the availability of a wide area of desert plains suitable for desert activities and sports festivals; in addition to the landforms resulting from erosion factors, there are also melting caves, as well as the Tarat area, which represents the edge of the plateau, which can be exploited to establish natural rest areas away from the noise of the city and enjoy the landscapes shown by those shapes (Al-jawsani, and Shukr, No. 21, 2015: 237).

The Badia area also contains several archaeological sites dating back to ancient times, such as the lighthouse of Umm al-Qur located in Al-Rahba, as well as water basins in the Umm geisha area dating back to the Abbasid era and the ancient pilgrimage route (Al-Ansari, 2008:334). There are also several springs in the area, some of which have a historical character, such as the eye of Imam Hassan (P). The Badia area is characterized by biodiversity and contains many birds, reptiles, mammals, and desert plants, as well as the growth of natural plants at the end of winter and spring when the year is wet.

Sixth: Nature Reserves:

The Najaf governorate has some places that meet the necessary standards for establishing natural reserves, such as the Najaf sea depression, Hor Ibn Najm, and the Western Desert. The Najaf Governorate Directorate of Agriculture launched the Nature Reserve project of the fenced type within the desert area in the network area and about 50 km from the center

of the Najaf district. The stages of its completion have been completed, and several projects aimed at developing the cultivation of wild plants and providing vegetation cover as well as the resettlement of rare animals such as ostriches and gazelles and the settlement of migratory wild birds, protecting the surrounding soil from erosion and desertification as well as making it a tourist area.

Desert plants are classified into (pastoral, medicinal, toxic, and aromatic) to form a model of the natural environment in the Najaf desert with an area of 11 million dunums ready for investment (Directorate of Agriculture in Najaf governorate, investment plan, Nature Reserve project).

Seventh: Human Characteristics in Najaf Governorate:

Archaeological sites, heritage and historical buildings, and religious shrines are artificial human components that are characterized by their scarcity in form and content; therefore, the element of competition has emerged, making them important tourist attractions and tourist facilities contain service facilities that need workforce, which means that the tourist activity is characterized by a high degree of dependence on humans, represented by the element of work. The more tourism develops the more support for the aspect of work and, thus, job creation within the boundaries of the tourism sector.

The population of Najaf Al-Ashraf governorate reached (1496,000 people) (Ministry of Planning, Central Bureau of Statistics, annual statistical collection of the governorates of Iraq excluding the governorates of the Kurdistan region of Iraq until 31/12/2022), about (3.9%) of the total population of Iraq (38124182 people) in 2018 (Ministry of Planning, 2018: 55-56).

Chapter Three

Analysis of the Studied Sample

A-The first axis: personal information:

1. **gender:** the number of males among the

members of the research sample was predominant at (74%), while the percentage of females was (26%), which indicates that the percentage of males is predominant, as shown in Table (2).

2. **Age:** the age group (18 – 30) years accounted for the highest percentage among the respondents, which amounted to (60%), while the rate of those aged within the category (31 – 41) (30%), and the age group (41 – 51 and more) accounted for the lowest percentage (10%) due to the difficulty of access to the lack or lack of essential and tourist services in these sites.
3. **educational attainment:** the number of Bachelor's and master's degree holders was the highest in the studied sample, with a percentage of (30%) for Bachelor's (28%) for Master's, followed by diploma (20%), then doctorate (14%) and preparatory (8%).
4. **destination of arrival:** the number of arrivals from inside Iraq was 100% in the sample, which means that there were no visitors from outside Iraq to these sites due to poor government planning, poor tourism investment, and the lack of effective tourism media inside and outside Iraq to identify the presence of a vast number of non-religious tourist sites in the province of all kinds.
5. **the nature of arrival:** the number of tourists with friends constituted the highest percentage in the studied sample (74%), while the number of tourists with family constituted (26%) of the model, while the number of tourists in the form of a tourist group and individually (zero%) for the lack of essential and tourist services in some of these sites, which increased the difficulty of access.

The Result	The Information	No.
Male (37) Female (13)	Gender	1
Less Than 18 (0) From 18 – 30 (30) From 31 – 41 (15) From 41 – 51 (5) More Than 51 Years (0)	The Age	2
Reads And Writes (0) Preparatory (4) Diploma (10) Bachelor's (15) Master's (14) Doctorate (7)	Academic Achievement	3
From Inside Iraq (50) From Outside Iraq (0)	Destination Of Arrival	4
Individual (0) Tourist Group (0) With Family (13) With Friends (37)	The Nature Of Arrival	5

Table -2 personal information

Source: the researcher based on the first axis questionnaire form.

B: measurement of natural components in Najaf governorate: we show from (Table 3 and Figure 2) the following:

- question No. (6), symbolized by (x6): he obtained the highest percentage of the arithmetic mean of the sample answers, and an average of 79.60% of the respondents answered that they agree that Najaf governorate has the elements of ecotourism development.
- Question No. (7), symbolized by (x7): obtained the second highest percentage of the arithmetic mean of the sample answers, and an average of 78% of the study sample members answered that they agree that water resources, surface geomorphology, and vegetation density are essential components for the development of ecotourism due to their abundance, diversity, and distinctiveness in the study area.
- Question No. 5 (x5): 71.20% of the study sample answered that they agreed that the location of the study area and its climatic characteristics are suitable factors to promote the reality of ecotourism due to the proximity of these components to the places of arrival of tourists from inside and outside Iraq and its climatic characteristics suitable for tourism on most days of the year.
- question No. (9), symbolized by (x9), received a percentage of 70% of the study sample members have answered that they agree that the biological diversity represented by rare animals and birds in the study area, especially the Najaf and Badia Sea, is capable of attracting tourist investment to the area and thus its environmental development, which was done through the implementation of natural reserves in the Najaf and Badia sea, but poorly commensurate with the size of the available natural potential.
- question No. (1), symbolized by (x1), received an average of 68.40% of the study sample members who answered that they agree that religious tourism is the primary type of tourism in Najaf governorate due to negligence and poor planning by the competent authorities in investing other tourism components, despite its diversity.
- question No. (4), symbolized by (x4), received an average of 66.40% of the study sample members who agreed that the elements of natural tourism are suitable for practicing ecotourism activity in the study area.
- question No. (2), symbolized by (x2), it turned out that 64% of the study sample

members answered that they were neutral that the study area attracts numbers of tourists from different countries of the world because of the religious status of the province, which made it a kiss for Muslims from all countries of the world.

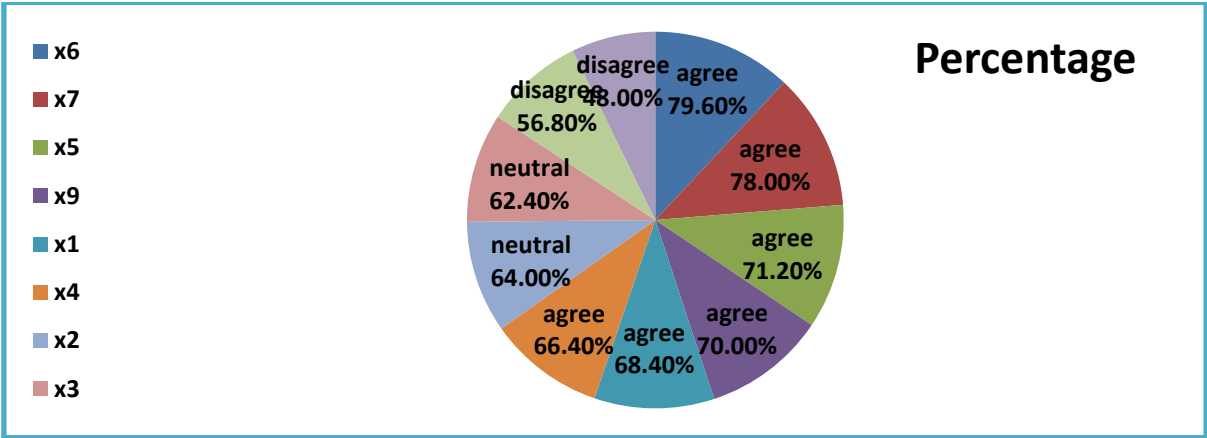
- 8. question No. (3), symbolized by (x3), received a percentage of 62.40% of the respondents have answered that they are neutral on the possession of the study area's natural features that distinguish it from the tourist areas in Iraq
- 9. Question Number (10), symbolized by (x10), which represents the extent of your

satisfaction with the tourism development in the natural sites of the study area, received a percentage of 56.80% of respondents who answered that they are opposed to expressing their dissatisfaction.

- 10. question No. (8), symbolized by (x8), received a percentage of 48% of respondents who answered that they are opposed to the ability of the components of ecotourism to accommodate tourists in the study area due to the lack or absence of tourism investment that supports the activity of tourist services in these sites.

Answer Rank	Sample Orientation	T Value	Deviation	Ratio	Middle	Total	Strongly Opposed	Disagree	Neutral	Agree	Strongly Agree	Questions
1	Agree	4.9774	1.0784	79.60%	3.98	50	1	5	8	16	20	x6
2	Agree	4.2964	1.1473	78.00%	3.9	50	3	3	8	18	18	x7
3	Agree	2.3381	1.3118	71.20%	3.56	50	3	10	10	10	17	x5
4	Agree	2.3869	1.1473	70.00%	3.51	50	3	7	12	18	10	x9
5	Agree	1.9794	1.1622	68.40%	3.5	50	5	6	8	25	6	x1
6	Agree	1.4371	1.2196	66.40%	3.5	50	5	6	17	12	10	x4
7	Neutral	0.8682	1.2617	64.00%	3.2	50	5	10	15	10	10	x2
8	Neutral	0.5975	1.0999	62.40%	3.12	50	5	6	23	10	6	x3
9	Opposed	-0.719	1.2182	56.80%	2.58	50	8	12	15	10	5	x10
10	Opposed	-1.944	1.6903	48.00%	2.4	50	3	8	12	10	5	x8
		1.7765	1.3	68.43%	3.4217	600	61	97	123	166	153	Empathy

Table (3): Measurement of natural components in Najaf governorate



Source: The researcher based on the second axis questionnaire form.

Source: researcher based on Table Data (3)

The third axis:

Measuring the development of ecotourism in Najaf governorate: we found out from (Table 4 and Figure 3) the following:

1. Question No. (3), symbolized by (Y3), received the highest percentage of the arithmetic mean of the sample answers, and an average of 85.20% of the study sample members answered that they strongly agree that ecotourism sites suffer from obstacles and apparent negligence in providing tourist services.
2. Question No. (1), symbolized by (y1), received a percentage of the arithmetic mean of the sample answers. An average of 71.20% of the study sample members answered that they agreed that there are economic, social, and cultural benefits from the development of ecotourism by contributing to the diversity of the tourist products provided in the province.
3. Question No. (9), symbolized by (y9), received a percentage of the arithmetic mean of the sample answers, and an average of 70.42% of the respondents answered that they agree that the diversity of natural sites and their spatial distribution has a significant impact on the development of ecotourism in the study area.
4. Question No. (5), symbolized by (y5), received a percentage of the arithmetic mean of the sample answers, and an average of 69.20% of the respondents answered that they agreed on the role of Najaf International Airport in the development of ecotourism for the study area.
5. Question No. (8), symbolized by (y8), received a percentage of the arithmetic mean of the sample answers, and an average of 68.40% of the respondents answered that they agreed on the contribution of environmental

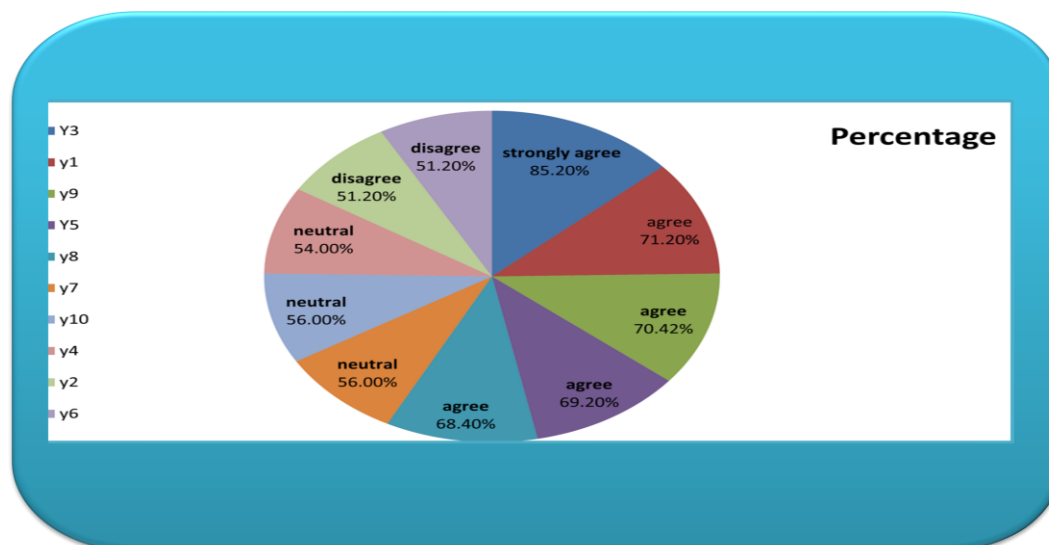
development to increasing awareness of the benefits of ecotourism to the study area.

6. Question No. (7), symbolized by (y7), received a percentage of the arithmetic mean of the sample answers, and an average of 56% of the respondents answered that they were neutral on the role of ecotourism in increasing the number of hotels, commercial markets, tourist companies and booking offices in the study area.
7. Question No. (10), symbolized by (y10), received a percentage of the arithmetic mean of the sample answers, and an average of 56% of the respondents answered that they are neutral on the state's implementation of environmental laws, the commitment of all parties to environmental instructions, and punishing violators according to the law.
8. Question No. (4), symbolized by (y4), received a percentage of the arithmetic mean of the sample answers, and an average of 54% of the respondents answered that they are neutral that the natural reserves in the Najaf Sea and the Badia are among the most successful ecotourism projects in the study area.
9. Question No. (2), symbolized by (y2), received a percentage of 51.20% of respondents who answered that they were opposed, as the study sample believes that ecotourism has no apparent role in attracting tourism investment.
10. Question No. (6), symbolized by (y6), stated that (51.20%) of the respondents answered that they are opposed to the contribution of ecotourism activities to support the local economy of the study area due to the weakness of tourist spending due to interest in religious tourism only and neglect of other types of tourism, which reflects negatively on the local and national economy.

Answer Rank	Sample Orientation	T Value	Deviation	Ratio	Middle	Total	Strongly Opposed	Disagree	Neutral	Agree	Strongly Agree	Questions
1	Strongly Agree	7.31	0.94	85.20%	4.26	50	1	3	2	20	24	Y3
2	Agree	2.56	1.19	71.20%	3.56	50	2	8	15	10	15	y1
3	Agree	2.13	1.33	70.42%	3.52	48	5	7	8	14	14	y9
4	Agree	1.87	1.34	69.20%	3.46	50	4	11	8	12	15	Y5
5	Agree OK	1.75	1.31	68.40%	3.42	50	6	6	11	15	12	y8
6	Neutral	-0.84	1.29	56.00%	2.8	50	10	11	14	9	6	y7
7	Neutral	-0.72	1.51	56.00%	2.8	50	14	10	8	8	10	y10
8	Neutral	-1.28	1.28	54.00%	2.7	50	10	15	10	10	5	y4
9	Opposed	-1.81	1.32	51.20%	2.56	50	13	15	8	9	5	y2
10	Opposed	-1.85	1.29	51.20%	2.56	50	13	13	12	7	5	y6
		7.35	15.43	35.62%	36.78	598	102	130	115	130	121	Empathy

Table (4) Measuring the development of ecotourism in Najaf governorate

Source: the researcher based on the third axis questionnaire form.



Form (3): Measuring the development of ecotourism in Najaf governorate

Source: researcher based on Table Data (4)**Second: Environmental Tourism problems in Najaf Governorate.**

1. Political: the turbulent political and military conditions that Iraq has faced and continues to face since the Eighties of the twentieth century have significantly affected various types of tourism in all governorates of Iraq (Abbas, 2016: 252), as tourism activity is susceptible to political and security conditions, as the security and political conditions improve, tourism activity will rebound and thus lead to a rise in tourist demand.
2. Economic: the lack or absence of tourism investment from inside and outside that supports the provision of tourist services in places where there are natural ecotourism components due to poor planning and coordination by the Ministry of Tourism and responsible authorities in Najaf governorate (Hammadi, 2008: 270-271) and interest in religious tourism only and neglect of other types of tourism led to poor tourist spending in the governorate and thus reflected negatively on the economy.
3. Social: the low level of ecotourism awareness of the residents of the governorate and the tourists together.
4. Problems of land use: poor land use planning, inappropriate design, and unsuccessful choice of sites often cause environmental problems and damage (International Conference on Sustainable Tourism, 1994: 16-20). for the Study Area, Tourism Planning should have considered land uses and infrastructure services, which became overloaded and resulted in heavy traffic, insufficient water, and waste disposal systems...Etc.
5. Transportation: the study area suffers from the lack or absence of paved roads

leading to the places where the components of natural ecotourism are located, as well as the low means of Transportation and its unsuitability for tourist activity at a level commensurate with the size of the tourist potential available in the province, as Transportation (roads and means of Transportation) is the most critical factors of Tourism prosperity and attracting tourists, as Transportation reflects the extent of the economic development of the country.

6. Media: weak promotional activity in the direction of ecotourism in the governorate, as the means of promotion are of great importance in the movement of tourism traffic.
7. More research must be done on environmental development, although the province has various tourism components.

Third: ways to develop ecotourism in Najaf governorate:

Because ecotourism has become an approach for tourism entrepreneurs and governments today, these investors should know the feasibility of applying this approach, understand its rules, and pay a fee, including the following.

1. To work on doubling efforts to achieve the highest financial return for the province through developing ecotourism components and promoting various types of Tourism owned by the study area.
2. Work on spreading environmental awareness and educating the community about the importance of ecotourism by establishing tourism awareness campaigns, seminars, and scientific conferences (Ghoneim, 1999: 166-167).
3. Tourism development should go hand in hand with social and environmental development so society does not

- change suddenly.
4. Sound management of Natural Resources and biodiversity in environmentally sustainable ways (Dabbour, 2004: 59).
5. Emphasize the importance of responsible investment based on cooperation with local authorities to meet the needs of residents and preserve their customs and traditions.
6. Paying attention to the primary tourist and commercial services and infrastructure that provide services to citizens and tourists together and working to consider that they are in harmony with the conditions of the environment and preserve the natural and cultural life.
7. Interest in tourist guidance as an essential profession reflects the country's interest in tourism. It introduces the tourist to the components of tourism in the province by providing specific entry centers that provide the tourist with the necessary information about the tourist areas.
8. Establish strict and effective laws to accommodate the number of tourists, protect them, and protect the ecological sites simultaneously.
9. Choose non-polluting means of Transportation so that they do not create air and noise pollution like electric vehicles.
10. Use appropriate disposal techniques, impose fines for dumping waste at non-designated sites, and encourage recycling, manufacturing, and organic farming.
11. The application of land use systems, environmentally and architecturally appropriate development standards, and strategies that reduce energy consumption in designs.
12. Apply standards to monitor the size and places of placement of billboards.
13. Maintaining environmental health and applying ecological safety standards to avoid ecological diseases and high

accident rates resulting from pressure, traffic density, fires, and other pollutants (International Conference on sustainable tourism, 1994: pp. 16-20)

14. Tourists should be informed about the surveillance procedures and the reasons for them so that they understand and respect these procedures.
15. Encouraging research and environmental tourism studies.

CONCLUSIONS

1. Poor development planning in the province negatively affects tourism.
2. Lack of experience in urban planning negatively affected tourist sites in general and the natural environment in particular.
3. More attention needs to be paid to the rules and procedures of ecotourism in Najaf province despite their importance in developing ecotourism.
4. There is a need for awareness of ecotourism as a concept and approach in Najaf governorate despite its many components of ecotourism.
5. Poor coordination between official and unofficial agencies and institutions dealing with environmental tourism in the Najaf governorate.
6. Poor tourist services provided in ecotourist attractions in Najaf governorate.
7. Lack of interest in tourist flags and their significant role in highlighting the components of ecotourism attractions in Najaf governorate.
8. The practice of ecotourism activities and events requires three criteria: the course of these events should be in natural areas to preserve the natural environment and not harm it; ecotourism benefits the local population.
9. The negative impact of the wars and displacement that have taken place on the governorate over the past few years.
10. There is a need to focus on developing ecotourism because it significantly

- impacts conservation in environmental, economic, social, and cultural terms.
11. Ecotourism is one of the best tourist styles that can be created in the Najaf governorate, as multiple and diverse natural tourist attractions characterize the Najaf Al-Ashraf governorate.
 12. Lack of research and studies dealing with the topic of ecotourism.

Recommendations

1. Increasing interest in the components of natural tourist attractions in the Najaf governorate, such as the Najaf Sea, Hor Ibn Najm, rivers, parks, and nature reserves, and turning them into important Centers for environmental tourism in the governorate.
2. Work on developing ecotourism for its importance in environmental, economic, social, cultural, and human terms.
3. Increasing attention to the principles of ecotourism because of its role in developing ecotourism in the Najaf governorate.
4. There is a need to pay attention to the positive effects of ecotourism, benefit from them, and work to reduce the negative impact.
5. Working on developing ecotourism awareness as a concept and a methodology in Najaf governorate.
6. Increase cooperation and coordination between official and non-official institutions dealing with ecotourism.
7. Increasing interest in tourist media because of its significant role in developing ecotourism in Najaf governorate.
8. There is a need to use the World Tourism Organization's expertise in ecotourism.
9. Increase research and studies dealing with the development of ecotourism.

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