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THE STATUS OF ECOTOURISM IN BAHRAIN: TRENDS AND PROSPECTS

A case study in the Southern Governorate

By

NADA A. D. AL-KHALILI

A Thesis submitted in partial fulfillment of the requirements for the Degree of Master of Environment and Sustainable Development

Supervisor

Dr. Habis S. Samawi

June 2006

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Kingdom of Bahrain

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DECLARATION

I declare that this work is the result of my investigation and that it has not already been accepted in substance for any degree, nor is it currently submitted for any degree.

Name: Nada A.D. Al-khalili Date: 7 December 2006

The Thesis defense committee considers the Thesis titled:

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A case study in the Southern Governorate"

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DEDICATION

In the name of God, Most Gracious Most Merciful

And say: *"Work righteousness, soon God will observe your work, and his Apostle, and the Believers ..."*

Extended form the Holy Quraan, Sura IX: Al-Tauba (Repentance), Verse 105.

To the people of Bahrain for their pride in preserving their cultural heritage, natural resources and their ever welcoming nature to all who visit the Islands.

In loving memory to my father,

&

to the love, support and encouragement of my family I am greatly indebted.

To them all I dedicate this work

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ABSTRACT

The Kingdom of Bahrain has strived in recent years to become a well known tourist destination in the region, strengthened by government backing at the highest level of decision making. This is further enhanced by the various natural, historical, cultural, recreational, educational and modern attractions in the country, and the famed hospitality and courtesy of the Bahraini people.

This research looks at the social, economic and environmental issues related to tourism in the country and the means of achieving sustainability in the tourism sector. This was further enhanced through a better understanding of the niche market of nature based tourism, with special emphasis on its application to the study area.

Two forms of primary data collection were undertaken through a field survey and a questionnaire survey. This resulted in formulating a better understanding on the current state of the natural and cultural attractions in the study area, with the formulation of a proposed ecotourism model in the study area. This was further enhanced by understanding the demographics, motivations and activities of nature tourists in the study area, and their expectations on developing this important niche market in the country.

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CHAPTER 1: INTRODUCTION AND METHODOLOGY

1.1- INTRODUCTION

Travel and tourism is one of the world's fastest growing industries, with an estimated 808 million international travellers worldwide in 2005 (UNWTONEWS 2006), this is further amplified through rough estimates of worldwide domestic tourism expenditure valuing ten folds the amount spent on international tourism (Cooper, C., *et al*, 1993). This presents a challenge to the governments and private enterprise to develop new approaches in promoting, developing and managing destinations, to find a balance between the social, economic and environmental pillars of sustainable development. Increasing evidence shows that an integrated approach to tourism planning and management is now required to achieve sustainable tourism. It is only recently that there has been a growing recognition of the importance of combining the needs of traditional urban management (transportation, land use planning, marketing, economic development, etc.) with the need to plan for tourism.

The Kingdom of Bahrain as a destination is endowed with numerous assets that attract inbound tourism to the country in addition to domestic tourism. Various natural, historical, cultural, recreational, educational and modern attractions are present in the country, further strengthened by the hospitality and courtesy of the Bahraini people. Recently there has been a strong commitment by the government of Bahrain to strengthen the tourism sector, with the overall aim of strengthening Bahrain's position as a high quality leisure and tourism destination for the outbound markets of the Middle East, Europe and Asia. This will be achieved through the development of a new national tourism vision, strategy, and master plan currently underway.

Furthermore in promoting a destination, various other criteria should be taking into consideration upfront, such as the possible risks, negative impacts and externalities that tourism development and increased tourism flow generates. These effects can be reduced dramatically with the increase in the popularity of alternative tourism. Were

nature based tourism and more specifically ecotourism are among the fastest growing sectors in the tourism industry from a global perspective. Particular reference will be placed on the Southern Governorate; to evaluate its role in nature based tourism and more specifically ecotourism in the country.

1.2- STATEMENT PROBLEM

Due to the reliance of tourism on natural resources for its development and prosperity, the development of the travel and tourism sector in Bahrain has required the alteration of the physical resource to facilitate the sectors expansion. This has been mostly evident in the northern parts of the Island, due to the inaccessibility by law of the southern areas in previous years.

This situation has dramatically changed, with large areas in the southern parts of the country being developed at a rapid pace. This is evident in the recent developments of Bahrain International Racing Circuit; Riffa views and Golf Course; Al Areen Desert Spa and Resort; Durrat Al Bahrain; in addition to several other urban and recreational small scale development projects underway in the Southern areas. This will evidently have a detrimental affect on pristine natural areas of international importance in the Southern Governorate.

Therefore in order to sustain the future development of the tourism sector in the Southern Governorate, while still conserving the natural resources that the sector depends on, a balance needs to be achieved between the environmental, social and economic pillars of sustainable development. One option in achieving such a balance is the diversification of the tourism product to include more sustainable tourism options in the industry, namely: sustainable nature based tourism and more specifically the niche market of ecotourism to be developed in the Southern Governorate. But in order for such a development to occur the following questions need to be answered:

- Who is attracted most to visit Bahrain and why?

- What are the sustainability parameters for tourism in the country?

- What are the natural assets in the Southern Governorate?

- Are there any environmental threats facing the Southern Governorate?

- What are the locations of interest for nature based tourism in the Southern Governorate?

- What are the demographic flows and preferences for nature based tourism in the Southern Governorate?

- What are the services and actions needed to develop ecotourism?

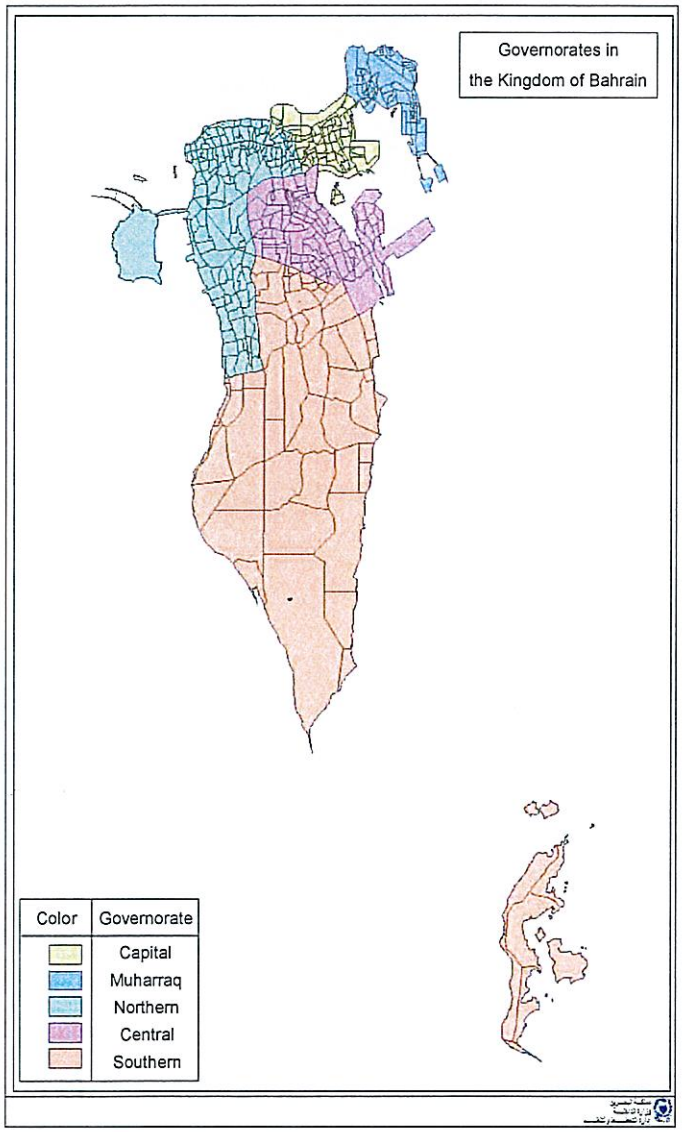
1.3- SCOPE OF STUDY

Decree law No. (17) 2002, was enacted with respect to the organization of governorates, article 1 states *"the Kingdom of Bahrain shall be divided into five governorates as follows: Capital Governorate, Al Muharraq Governorate, Northern Governorate, Central Governorate and Southern Governorate"*.

The scope of the study will encompass the Southern Governorate, in the Kingdom of Bahrain. The Southern Governorate as the name implies is in the southern part of the main Island of Bahrain with the inclusion of many offshore islands scattered in the southern parts of Bahrain's territorial waters. It is represented by 57.9% of the total area for the Kingdom, occupying a total land mass of 434.8 km2, making it the largest of the five governorates as depicted in Map 1.1.

The governorates are representatives of the executive authority, having a juristic entity, and are accountable in taking part of the responsibilities from the main central government. Additionally, the governorates shall serve to implement the development policies across sectors and follow up on the implementation of development projects of the various state ministries, entities and establishments each in their own governorate.

Map 1.1 Geographical extents of five Governorates



Source: Decree law No. 17 for 2002

In the Southern Governorate the population is distributed in parts of East and West Riffa, Safarah, Awali, Askar, Jaw, Aldoor and Al-Zallaq with a total population size of 44,718 in 2002. A small percentage if compared to the total population size of the country in the 2001 population census of 650,600 individuals, growing to 707,200 (CIO 2004). The small population density in the Southern Governorate is due to the fact that the relatively high population densities are distributed on the coastal strip along the northern and eastern coasts of the main island of Bahrain.

Out of the ten electoral areas in the Southern Governorate, the greatest density by the census in 2002 was electoral area number one with a population size of 11,118. This is followed by electoral area number four with a population size of 7,136. Electoral areas number three and five also had relatively high population densities of 5,946 and 5,836 respectively. The least number of individuals was in area eight with only 1,249. In regard to the tenth electoral area, which is the Hawar archipelago no residential blocks present for a population census as depicted in Table 1.1.

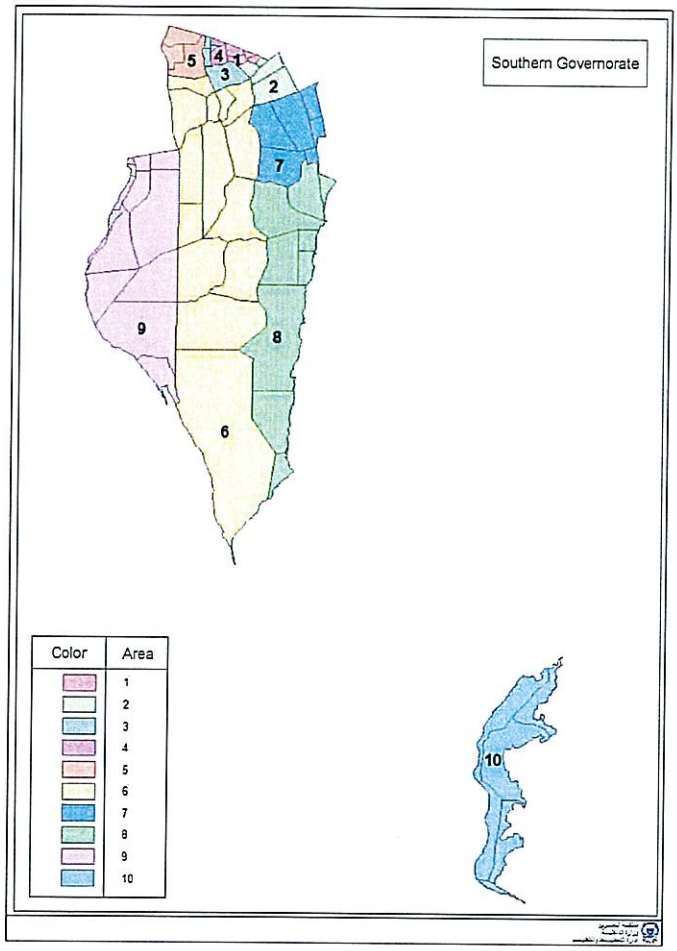
Table 1.1 Population densities of ten electoral areas in the Southern Governorate

Area No.	Block Numbers	Population
1	903, 905, 907	11,118
2	909, 911, 948, 949	3,724
3	902, 904, 908, 942	5,946
4	901, 910, 912	7,136
5	906, 928, 930	5,836
6	943, 944, 945, 946, 947, 976, 981, 983, 985, 986, 987, 988, 995, 997	4,803
7	950, 951, 952, 953, 954, 955	2,586
8	957, 958, 959, 960, 961, 965, 967, 971, 973	1,249
9	1054, 1055, 1056, 1057, 1058, 1061, 1062, 1063, 1064, 1067, 1068, 1070, 1099	2,320
10	1103, 1104, 1106, 1107, 1108, 1110, 1111, 1112, 1113	0
TOTAL	**74 Blocks**	**44,718**

Source: Southern Governorate, Ministry of The Interior

Relating the population densities in Table 1.1 to the geographical distribution of the ten electoral units in the Southern Governorate in Map 1.2, it is clear that the majority of the population in the Southern Governorate is distributed in upper most northern parts of the governorate.

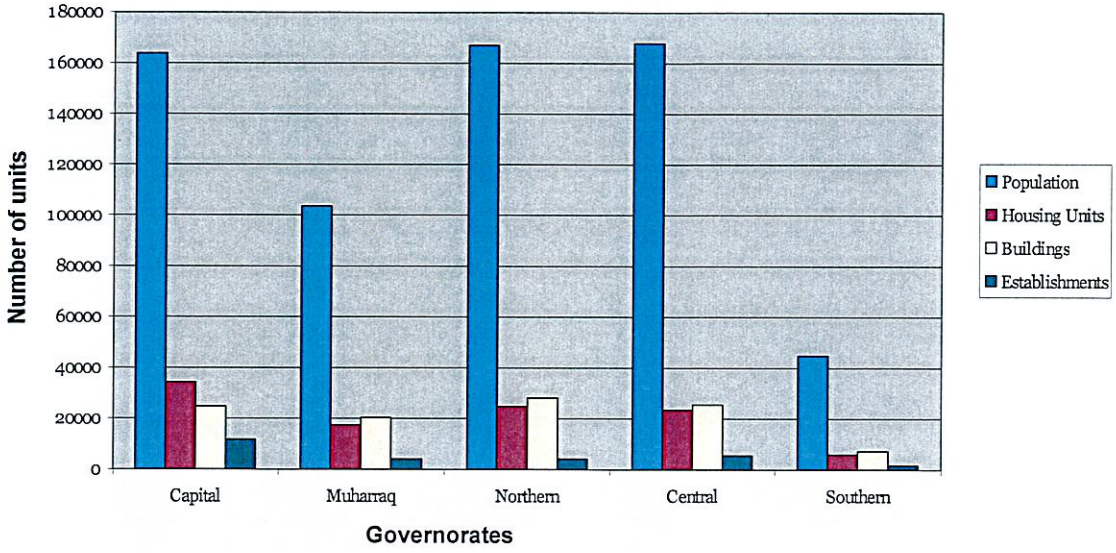
Map 1.2 Geographical distributions of ten electoral units in the Southern Governorate



Source: Decree law No. (17) for 2002

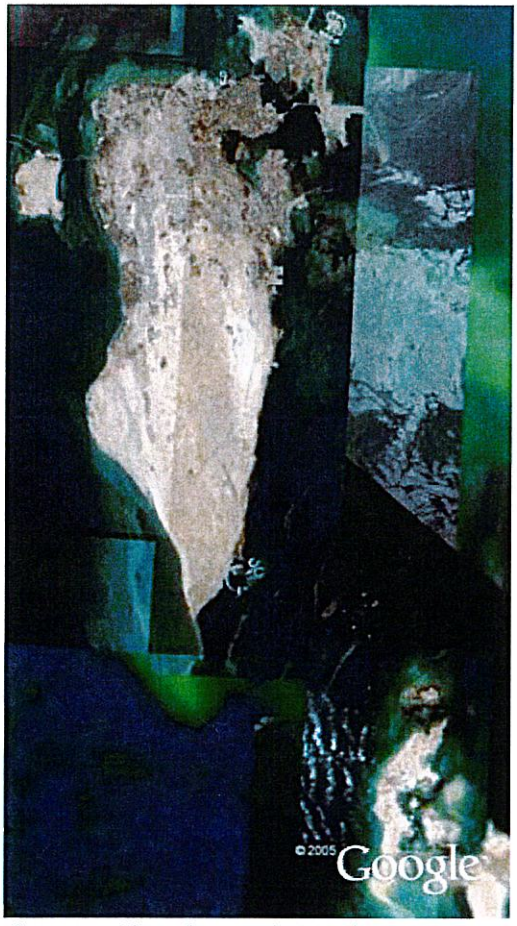
Furthermore according to the summary result census 2001 the Southern Governorate has the least population density, housing units, buildings and establishments compared to the other four governorates as depicted in Figure 1.1, this is further depicted in Map 1.3 showing the geographical extent of urban development for the Kingdom of Bahrain as dark patches compared to the extensive light brown areas in the Southern Governorate.

Figure 1.1 Population, housing, buildings and establishment in the five governorates in 2001



Source: Central Information Organization 2004

Map 1.3 Geographical extents of urban areas



Source: Google earth 2006

1.4- OBJECTIVES OF STUDY

The main objectives of the study are:

- To identify tourism attractions in the study area.
- To assess tourism typologies and flows.
- To evaluate the social, economic, environmental parameters of sustainable tourisms.
- To evaluate the current state of natural resources for nature based tourism in the study area.
- To propose an ecotourism model in the study area.
- To evaluate the demographics and preferences for nature based tourism in the study area.
- To evaluate the motivational drives for nature based tourism in the study area.
- To identify future actions and services needed to develop ecotourism in the study area.

1.5- LITERATURE REVIEW

Reviewing existing local, regional and international studies relevant to the current study substantially saved time and effort, whilst giving an enhanced outlook on the various issues. Brief descriptions on the following studies are highlighted below:

A two year research project conducted by Conservation International in collaboration with United Nations Environment Programme (UNEP) entitled "mapping tourism global footprints" illustrated the overlap between tourism development present and forecasted and biodiversity hotspots on a global basis, highlighting tourism related opportunities and threats for biodiversity conservation and improved human welfare with the identification of 38 biodiversity hotspot countries experiencing more than 1 million annual tourism arrivals and 22 biodiversity hotspot countries were tourism arrivals have more than doubled in the last decade. Recommendations were developed through this study for governments, private sector, development agencies, local authorities, residents, and tourists themselves (Christ, C. *et al.*, 2003).

A survey of 32 privately owned nature reserves in sub-Saharan Africa and Latin America was undertaken by Langholz, J. in 1996 to identify their economic attributes, initial objectives, and factors necessary for attaining those objectives. Results of the study showed that over half were profitable, Tourism revenues provided 67.4% of reserve income. Despite the economic success, most owners were motivated by conservation goals for habitat protection (Langholz, J.1996).

An important publication by the World Bank and the Development Bank of South Africa, drawing on a range of analytical and research building blocks and culminated in a frame work for a multi-market model developed by Aylward, B. and Ernest, L. in 2003 for the Ezemvelo Kwazulu-natal Wildlife. The key findings that emerged form this study in regard to the policy options include improving conservation of biodiversity go beyond a wildlife industry to building the foundations of a nature tourism economy. Furthermore providing concession to the private sector in public

protected areas contributes to equitable development and job creation, while generating conservation finance. Finally foreign tourism demand or wildlife viewing is not responsive to price, making a case for price differentiation between foreigners and residents to augment conservation finance (Aylward, B and Ernst, L. 2003).

Mohammed, S. in 2002 highlighted the rich natural resources within the Gulf Corporate Council (GCC) countries with special emphasis on the role of protected areas to develop ecotourism within the region, and the various ecotourism activities of interest in the region (Mohammed, S. 2002).

A study by Lindberg and Enriquez in 1994, gave a preview of the importance of tourism to the Belizian economy, then the study described the economic impact of ecotourism in Belize, linking the relation of protected areas to the economic attributes of ecotourism, with local people's attitudes to wards conservation (Lindberg, K. and Enriquez, J. 1994).

The study by Sourina in 1996 entitled "Wildlife tourism in West and Central Africa" is a comparative study between ecotourism infrastructure in eastern and western Africa. Although the former has a world renowned system of national parks and tourism destinations, while the later has many parks but a very small tourism industry. The author provided interesting comments on the differences concluding that the reasoning lies in that the high plains of east and southern Africa contain varied and observable wildlife attracting the ecotourists. The protected areas in west and central Africa are located in zones of dense forest or in drier forests where wildlife viewing is unrewarding, thus hindering the expansion of the ecotourism niche market in the area (Sournia, G.1996).

An Arabic guide to sustainable tourism by Al Samawi, H. in 2002, targeted the owners of tourism projects in implementing sustainable tourism in their businesses. Furthermore it targeted the hospitality industry, travel agents and tour guides in

promoting the industry on a sustainable path, with guiding principles for sustainable tourism development (Al Samawi, H. 2002).

A study by Hakem, S. in 2005 presented an analysis of present and possible future environmental problems resulting from the unsustainable use of ecotourism sites in Kuwait, recommending a work strategy for the planning of sustainable ecotourism in the country (Hakem, S. *et al* 2005).

An important study was conducted on the abilities and development opportunities for the tourism sector in Bahrain. The study provided good insight on the various services and activities, with good recommendations to develop and diversify the tourism sector in Bahrain (Al Klai, H. *et al.* 1990). Based on the results of the above study, a five year strategic plan for the tourism sector was developed by Al Sadiq and Al Manai in 1992 to promote the tourism industry performance in Bahrain. Various scenarios were studied in regard to developing the tourism sector in the country with only two scenarios being viable and were incorporated in to the study. This represented the first study of its kind in Bahrain to formulate a five year strategic plan for the tourism sector based on sound scientific basis (Al Sadiq, A. and Al Manai, A. 1992).

Another study was conducted by Al Jeeb in 1995, the study was a Master (M.Sc) focused on the concept and history of tourism in Bahrain, before British colonialism, after the independent period and through the second Gulf War entitled "Tourism History and its Development in Bahrain" (Al Jeeb, F.1995). The resulting work of Al Jeeb was later published as a book in 2005 holding the same title. The main recommendations of the study included the need for a regulatory tourism law in the county, developing a tourism strategy which focuses on developing the infrastructure and superstructure of the county, the need to investigate the tourism market and develop a marketing strategy, developing tourism services in coastal and offshore islands. In addition to strengthening the Meetings, Incentives, Conferences and Exhibition (MICE) sector, and strengthen educational institutions related to tourism (Al Jeeb, F. 2005).

Furthermore a Master Degree thesis by Al Shirawi in 2001 aimed to investigate the major strategic stakeholder's interest and expectations of the tourism industry in Bahrain. The findings of the study reflect stakeholder's views and opinions of how the industry should be managed and the requirements to position Bahrain as a tourist destination. The study looked at the tourism industry as a strong factor in economic diversification and the need for better management and coordination between the different stakeholders in strengthening the sector (Al Shirawi, A. 2001). Later, Mr. Al Shirawi incorporated his findings in the publication of his book 'Tourism Status and Future Trends in Bahrain' in 2002 (Al Shirawi, A. 2002).

Another important study by Al Najem in 2003, doctoral thesis entitled "Promoting cultural tourism in the Kingdom of Bahrain: a study on strategic management". This study is the first comprehensive study to focus on the strategic management side of cultural tourism in Bahrain, developing a model of strategic change suitable for ongoing use in the context of cultural tourism. Further more the study analyzed the opinions of tourist form the GCC countries who visit Bahrain for leisure and entertainment, regarding the various cultural sites. The study concludes that the cultural tourism sector in Bahrain has the potential to grow further beyond its present status by enhancing the role of marketing, strategic management and human resources (Al-Najim, R. 2003).

A publication by Madany in 2002 contributed to the knowledge on ecotourism in the 10th Wildlife series, the book highlighted the aspects of tourism, agenda 21, ecotourism, and more specifically on ecotourism in Bahrain, the important sites for ecotourism in the country and the challenges facing this niche market (Madany, I. 2002). Furthermore in 2003 a symposium on ecotourism in Bahrain was published in the 11th Wildlife series, giving an overview of the various aspects of ecotourism. Topics ranged from marine to terrestrial ecotourism, eco-lodge, tourism in the curriculum, water quality and tourism, the role of the private sector in promoting ecotourism and the road to sustainability in tourism (Madany, I. 2003).

1.6- METHODOLOGY

The following section outlines the research methodology adopted during data gathering, and subsequent data analysis. Data required to fulfil the objectives were principally based on collecting primary evidence via; a field survey and subsequent questionnaire survey. The primary data collected was both subjective in its context, like secondary data concerning people's perceptions, attitudes, beliefs and priorities. Additionally it was also objective in some way measurable (Belton, V. 2001).

1.6.1- Site Survey methodology

The first form of primary data collection was a field survey of the various natural attractions in the Southern Governorate, encompassing any cultural or historical attractions associated with in the natural areas that are attainable to the public. The site survey's main purpose was in two folds; first to allocate the attractions according to their natural and cultural values in the Southern governorate for nature based tourism and more specifically for ecotourism in order to provide the baseline for the second part of the survey methodology concerning the questionnaire survey. The second fold was to provide a clear picture of the status of the visited sites, through site evaluation of the following components:

- The ecological integrity or historical importance of the site
- Accessibility of the site
- Activities associated with the visited site
- Services provided at the site
- Anthropogenic effects visible at the site

The survey resulted in choosing eight sites assessable to the public and valued for their natural attraction and associated historical importance for nature based tourism. They represented the camping areas, Tree of Life, Al- Areen Park & Reserve, Al-Hunainiya Valley, Sheikh Salman bin Ahmed Al Fateh Fort known previously as Riffa Fort; Oil Museum, and coastal areas in the Southern Governorate assessable to the

public, namely: Al Jazair beach, and the coastal villages of Jaw and Askar. Additionally a field surveys to the main Hawar Island was conducted, surveying the areas that are only accessible to the public when visiting the Hawar resort, while another survey was conducted with Al Reem Environmental Consultation and Ecotourism Office, through an ecotour trip to other parts of Hawar archipelago that are not assessable to the public except through an ecotour trip.

1.6.2- Questionnaire methodology

Another form of primary data collection was the use of a questionnaire survey, which is the most widely, used sampling method at hand. Seeking information through the questionnaire to answer a question at hand, support an argument or support a decision making process. A structured questionnaire entitled "Questionnaire for ecotourism in the Southern Governorate, Bahrain" was designed targeting visitors and tourists at the eight chosen sites from the field survey in the Southern governorate in order to collect the quantitative data required.

The questionnaire was clearly laid out, but on as few pages as possible, for this reason a double sided one A4 sheet was used to give a feel of the simplicity of the questionnaire and short response time needed to answer the questionnaire. An Arabic version (Appendix, Questionnaire 2) and an English version (Appendix, Questionnaire 3) were prepared.

An introductory sentence started the questionnaire followed by the questionnaire number and place of interview according to the eight sites. The questionnaire was divided in to three sections A, B and C respectively as follows:

Section A: contained seven questions their purposes were to elicit personal data pertaining to the visitors or tourists at the designated sites, information included nationality, sex, age, social status, education and occupation, thus to evaluate the demographic variable of the sample members.

Section B: contained six questions their purposes was to gather data on the trip characteristics; the information required included time of visit, type of trip, places visited, the reasons for the visit and the current evaluation of natural areas in the study area.

Section C: contained seven questions their aim was to determine the respondent's views and opinions on conventional tourism as opposed to ecotourism in the study area, additionally in their preferences on the services and actions needed to develop ecotourism in the study area, with the last questions being an open-ended questions for additional suggestions by the sample members on developing ecotourism.

After finalizing the questionnaire a pilot survey was conducted. This process is extremely important to ensure that the questionnaire is thoroughly tested before widespread use. The pilot survey highlighted problems associated with the sampling frame; and gave an indication of non-response rate; in addition to highlighting answers collected that are not of any use or questions that would be useful but have not been collected.
The first version of the questionnaire (Appendix, Questionnaire 1) was completed in January 2006 consisting of 29 questions, four of which were open-ended questions. Each questionnaire was printed on four one sided A4 papers for ease of viewing.

The questionnaire was handed to the respondent for self-completion, while still remaining there to answer questions if necessary and to collect the completed questionnaire. This methodology was implemented first in the pilot survey and later in the questionnaire survey.

The pilot survey was conducted in Sakhir camping area for one week from the period of 21st January to 27th January with a total number of respondents reaching 21 persons only. The response time for each questionnaire took an average of 15 minutes to complete, after which a face to face interview was conducted with the respondent

for his/her views on the questionnaire in relation to its clarity, understand ability, simplicity and content.

The main criticisms raised by the pilot survey were related to the length of time needed to finish the questionnaire due to the length and detail of the questions. This resulted in that many respondents when realizing the length of the questionnaire and the time required for its completion, they declined from answering the questionnaire or partially answering it.

To resolve this problem shorter, clearer and a simpler version of the questions were used to reduce space and increase the understanding of the questionnaire in addition to reducing the font size to 12 Times New Roman for the English version. The pilot survey also established the need to substitute the open ended questions with closed one's in addition to omitting a few questions that didn't add value or input to the questionnaire.

The end result was a shorter, more precise and understandable version of the questionnaire without sacrificing the quality of data that needed to be gathered. This resulted in decreasing the time needed to answer the questionnaire to 5 minutes, which eventually raised the response rate for the questionnaire.

The questionnaire survey was conducted through the following process; the questionnaires were distributed to the eight chosen sites through the field survey; Camping areas, Al- Areen Park, Tree of Life, Al- Hunainiya Valley, Riffa Fort; Oil Museum, Al Jazair beach and the Hawar Island between the periods 2nd February to 17th March 2006. Each site was visited five times in the weekdays, while the other five visits were in the weekends. Forms that were not filled out properly, either by being uncompleted or having double answers were excluded from the survey. This resulted in the validity of 838 questionnaires.

A multivariate method was used for the analysis of the questions, statistical analyses tests were performed using a statistical software package "Statistical Package for the Social Sciences" (SPSS). It is probably one of the most widely used packages in social sciences in seeking to analyze multiple variables, it was used to investigate whether or not patterns and relationships exists in the data. Relations between demographic variables tested using Chi-square test (X^2), Anova test (F-Test) and T-test. In all of the statistical tests, the null hypothesis was rejected at the 5% level (p less than or equal to 0.05). Results were presented as the mean, standard deviation (SD), frequencies (N) percentages (%), T-value and F-value. While the open-ended question number 22 in the questionnaire was categorized and summarized manually, as the SPSS cannot analyse open ended questions.

CHAPTER 2: TOURISM PRODUCT

2.1- TOURIST ATTRACTIONS

Tourism attractions are vital components for the successes of tourism in a desired destination. They provide the pulling factor, or the core product that causes visitors and tourist to choose a certain destination. Furthermore they provide the images and symbols in promoting the destination, and finally they are the cause for the development of other sectors of the tourism product such as accommodations, catering, transport, tour operators and other tourism services needed; all of which depend on the attractions. Accordingly with proper planning and management of the tourism attractions, eventually it will reinforce, consolidate, and assist the promotion of the tourism product in the country.

While tourism attractions are fundamental components of tourism, there is no generally accepted definition of tourism attractions. Bonn, M. (1986) defines tourist attractions as anything that draws visitors with no apparent bounds in terms of forms or types. Walsh-Heron, J. & Stevens, T. (1990) defined a visitor attraction as "a feature in an area that is a place, venue, or focus of activity and does the following: 1. Sets out to attract visitors/day visitors from resident or tourist populations, and is managed accordingly; 2. Provides a fun and pleasurable experience and an enjoyable way for customers to spend their leisure time; 3. Is developed to realize this potential; 4.Is managed as an attraction, providing satisfaction to its customers; 5. Provides an appropriate level of facilities and services to meet and cater to the demands, needs, and interests of its visitors; 6. May or may not charge an admission for entry". While Pearce, P. (1991) suggested that "a tourist attraction is a named site with a specific human or natural feature which is the focus of visitor and management attention".

Various tourism attractions are evident in the Kingdom of Bahrain attracting visitors and tourists alike, from ancient history to our modern time. Mufeez, A. and Ghunaim, O. (1998) highlighted four types of tourism in Bahrain according to the various

tourism products and attractions in each time period. They are represented by primitive tourism; explorer, conquerors and merchants tourism; modern tourism and the tourism activity stage representing the last stage of tourism development in the country as follows:

Primitive Tourism: This type of tourism prevailed from ancient times till the dawn of Islam. Sumerian myths named Bahrain the "Paradise of Dilmun" meaning "land of life" due to its abundance of fresh water springs and agriculture, this lead to the belief of immortality for the buried encouraging neighbouring cultures to travel to Bahrain to bury their dead to acquire immortality. Tourism assets in this period were mainly natural and religious in nature. Further more various Greek scholars and historians mentioned Bahrain in their writings, and the Greek general Tyargors visited the Island. Additionally Arab merchants settled in Bahrain waiting for the pearling season.

Explorer, Conquerors and Merchants Tourism: This type of tourism prevailed form the Islamic period until just before the discovery of oil. Many Islamic explorers and scholars and merchants namely, Ibin Batota, Al Azhari, Al Bagdadi, Al Maqdisi wrote about Bahrain, describing its beautiful gardens; the abundance of fresh water springs and pearl beds; and its strong trade in the region.. Further more historians, military leaders and explorers during the Portuguese and British colonialism visited Bahrain and described its importance in the region. Tourism assets in this period were natural assets and its unique strategic position in regard to trade and defence purposes.

Modern Tourism: This type of tourism began with the discovery of oil in 1932 indirectly influencing the development of tourism in Bahrain, by attracting expatriate workers, investors and tourists due to the oil boom until the end of the 1970's when oil prices dwindled. This period represented a change from tourism assets dependent on nature to tourism assets dependant in the economical performance of the country. Furthermore from the early 1960's Bahrain embarked on an extensive program of economic diversification away form its dependence on oil revenues with special

references on strengthening its financial sectors attracting further investors and tourists indirectly.

Active Tourism Stage: This period began in 1985 and is still continuing to this day. It started with the establishment of the Supreme Council for Tourism by an Amiry Legislative Decree No. 1 for the year 1985 with the following responsibilities:

- To suggest development and invigoration of tourism movement in the country and to raise the efficiency of the authorities and organizations concerned with external and internal affairs of tourism.

- To suggest ways and means for the maintenance development and preservation of the archaeological milestones with the collaboration of the Directorate of Archaeology and Central Municipal Councils.

- To study the plans and projects submitted by the Ministry of Information, and to find out the suitable resolutions for the problems and difficulties, which may obstruct the development, growth and flourishing of tourism movement.

- To suggest the legislation necessary for the facilitation and promotion of tourism movement.

- To develop and encourage the tourism perception among citizens.

This was followed by an Amiry Legislative Decree No. 15 for the year 1986 governing tourism. Thus organizing tourism activities and services and organizing for tourism licences and classification of hotels.

To date various tourism attractions are evident in the Kingdom of Bahrain attracting visitors and tourists alike. They represent the various natural, historical, cultural, recreational, educational and modern attractions in the country. A preliminary assessment of these attractions in the country will be presented, with special emphasis on the Southern Governorate. This will ultimately provide an initial indication of their value and feasibility in the application of nature based tourism to the study area in the forthcoming chapters.

2.1.1-Safety and Stability

Bahrain is a constitutional hereditary monarchy with a bicameral parliament consisting of the House of Deputes and the Shura Consultative Council. It has been regarded internationally as one of the most stable and best-governed countries in the region and recognized for its efforts in promoting democracy and transparency in government. Further more it is a very safe country to visit by travellers or tourists with very low crime rates, mostly petty crimes. The only threat to the stability of the region is due to the Israel, United States occupations in the region.

2.1.2-Accessibility

Bahrain is strategically located in the Arabian Gulf at the routs between east and west, north and south, encouraging international inbound tourism to the country (Map 2.1). This is achieved through Bahrain International Airport, the King Fahad Causeway and to a lesser extent though Mina Salman Port.

Furthermore the close location of Bahrain to other GCC countries enhances interregional travel within the region, especially though the King Fahad Causeway and in the near future thought the Bahrain-Qatar Causeway.

Another factor attracting the traveller and tourists to Bahrain is its small area of only 728.32 Km^2 (CIO 2004) with the ease of travel within the country in a short time period taking in the various attractions. The availability of a good and modern

network of roads, highways, bridges and flyovers assists the ease of travel within the country and reduces the occurrence of traffic jams.

Map 2.1 Strategic location of Bahrain within the region



Source: Google earth 2006

2.1.3-Climate:

The climate in Bahrain is influenced by many factors, most importantly the geographical location of the country in the core of an extensive zone of aridity (Nightingale, T. and Hill, M.1993). The climate is subtropical, predominantly featured by high temperature, high relative humidity, low but seasonal rainfall, and a predominantly north-westerly wind direction (BNR 2006). Broadly speaking, the year may be divided into two main climatic periods the summer period from June to September; and the winter period from December to March, separated by two transitional periods April/May and October/November. The transition between summer and winter weather patterns occurs within periods of weeks and hence the season of autumn and spring are relatively short.

The summer period is hot and humid with temperatures averaging 35° C, the winter period is cool and pleasant with temperatures averaging 20° C and may fall to 10° C in the cooler months of December and January. This climatic pattern attracts tourists from colder countries to enjoy the winter season in Bahrain, as the weather is cool and pleasant. While in the summer season were temperatures become uncomfortable various man-made attractions are equipped with air conditioners to battle the summer heat and water sports become very popular during this period. The spring and autumn period has pleasant cool nights with temperatures averaging 25° C and 29° C respectively.

2.1.4-Cultural Heritage

Hospitality and courtesy are prized in the Bahraini culture with its roots strongly imbedded in the Islamic and traditional Arabic culture of the region. It is a way of life affecting how Bahraini's conduct themselves with outside visitors with a welcoming attitude, tolerance to others, courteous and helpful in any way possible. Visitors are often charmed by this and as a result are intrigued to learn more about the Bahraini culture and participate in it for a truly rich multicultural experience.

While economic development has changed the pace of life in Bahrain, with a more modern and cosmopolitan life style, Bahraini's still hold to their traditions and culture and are proud of it. This can be seen though the local customs and traditions of Bahrain, in their music and folkdance, poetry, arts, literature, traditional buildings, antiques, pearls, jewellery and the traditional industries of pottery making, textiles, basket weaving and boat building.

Further more with the economic development of the country leisure activities have changed to a more modern and universal practiced activities like shopping in shopping malls, cinemas, racing, jet skis and many more. Still traditional leisure activities of the past are still enjoyed by many like traditional fishing, camping and commuting in traditional coffee shops and shopping in the old souks of Manama and Muharraq.

2.1.5-Natural attractions

A diversity of distinct ecosystems occurs on the islands attracting residents and tourists alike they include plantation areas, deserts, mangroves, salt marshes, mudflats, offshore islands, coral reefs, and seagrass beds.

The Southern governorate has a lot to offer in regard to the natural beauty of the desert; in addition to its coastal and marine habitats. It accommodates a diversity of distinct terrestrial and marine ecosystems. The marine ecosystems are diverse, including inertidal habitats, seagrass beds, coral reefs and offshore Islands. Terrestrial habitats on the other hand are predominantly arid deserts.

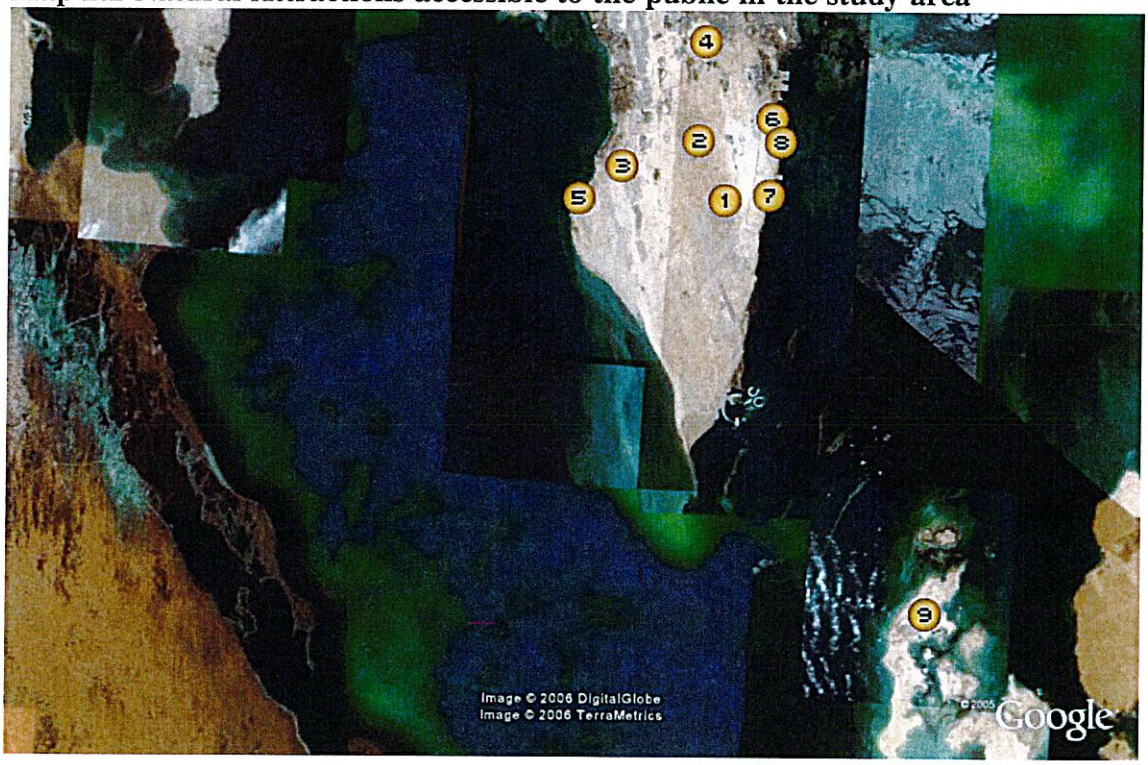
The Tree of Life is a major tourist attraction in the Southern Governorate; an ancient solitary *Prosopis juliflora* tree inhabiting the south east central depression, its presence evokes a sense of mystery to this solitary tree. Furthermore the desert environment is a welcome change form every day life, were many residents and tourists are attracted to the tranquillity and culture of desert life, enjoying desert walks and camps.

Furthermore various coastal strips are accessible to the public in the Southern Governorate, with a good network of roads. On the east side they include coastal strips of the villages of Ad Dur, Jaw and Askar, Al Jazair coastline, Zallaq village coastline. In addition many offshore islands are accessible to the public, they include Qassar Muhana, Hidd Al Hul, Halat Noon, Qassar Noon, Mashtan Island, Al Mutarid Island, Um Jaleed and the Hawar archipelago. Of particular interest to the visitor/tourist are Al Jazair Beach, and the Hawar Island.

Other natural attractions include visiting the natural beauty and diversity of protected areas in the Southern Governorate. Out of the five designated in-situ protected areas in Bahrain, three are in the Southern Governorate namely: Al-Areen Wildlife Park and Reserve, Mashtan Island and Hawar Islands. Two of which are visited frequently by travels and tourist namely Al-Areen Wildlife Park and the Hawar Island.

Furthermore the National Mariculture Centre is one of the leading facilities in the captive breeding of commercial fish species in the Arabian Gulf, successfully proliferated selected fish species of high commercial value such as the grouper *Epinephelus sp.*, rabbit fish, *Siganus canaliculatus* and subaity bream *Sparidentex sp.* (BNR 2006). The centre is visited to a lesser extent by visitors and tourists, with special interests. The various natural attractions are depicted in Map 2.2.

Map 2.2 Natural Attractions accessible to the public in the study area



1-Tree of Life, 2-Camping Area, 3-Al Areen Wildlife Park, 4- Hunainiya Valley 5-Al Jazair Beach, 6-Askar Coastline, 7-Jaw Coastline, 8-National Mariculture Centre 9-Hawar Islands

Source: Google earth 2006

2.1.6-Historical attractions

Historical attractions are evident throughout the country due to its long and rich history that date back several thousand years. Stone Age fishermen and hunters lived in Bahrain between 5000B.C to 3000B.C. Tools and weapons were made of local materials: flint, other stones, bone, horns and wood. Bahrain's principle Stone Age

settlement was discovered at Al-Markh on the west coast of the main Island near the present day Al-Areen Park and Reserve. The settlement is evidence of a thriving fishing and hunting camp existing over a long period of time. The climate then was wetter with more vegetation for land-game such as gazelles, oryx, ostrich and wild camels (Vine, P.1993).

The hunting and gathering society gradually evolved in to a network of complex agricultural and urban civilization. Fresh water was the critical resource in terms of agriculture and the cultivation of date-palm, which originated in Dilmun and was introduced in to Mesopotamia, the Date-juice was a popular drink in Dilmun. Animal husbandry was introduced in this period, this was evident in the engraving of cattle on many seals and the remains of sheep and goat bones recovered from burial mounds, the vast majority of which were constructed in the Dilmun period stretching from 3200 B.C to 330B.C (Vine, P. 1993).

As a major trading hub, Bahrain played a major role in prehistoric times as well as during documented history as an important trade centre. This was due to its strategic location in the Arabian Gulf at the centre of the sea routes used by the Sumerians for trading purposes about 3600 B.C. Furthermore the rise of the state of Dilmun during the 2nd millennium B.C. as one of the most important trade centers of the Gulf, a connecting link between Mesopotamia and Wadi Sind. (Al-Khalifa, K. 1993). It not only became an exporter of its long standing luxury item, pearls, but the centre of the copper trade linking the mining areas of Makkan (Oman) with the lucrative markets of Meluhha (Indus Valley) and Mesopotamia. Settlements on the main Island of Bahrain spread to the South of the main Island during this period due to the increased activities reaching a maximum in the area of land occupied during 2000-1800B.C. (Larsen, C. 1986). A thousand year before Islam the Tylos period extended between 330B.C to 622 A.D and trade was still strong and prosperous, though Greek influence, customs and imports pervaded.

There are approximately 85,000 burial mounds, roughly covering 5% of the Island with a total area of 30km2. Four types of burial mounds are distinguished by its size, shape, grave goods and period namely: Early, Intermediate, Late Dilmun type burial mound; and the Tylos type burial mounds. The burial mounds in the Southern Governorate located in Um Jadir and parts of Riffa, are from the early and late type burial mounds (Vine, P. 1993). The burial mounds are a distinctive feature of the island and a major cultural attraction for tourists.

During pre-Islamic times, Bahrain was known to be one of the most important and wealthiest trade regions. The market at Hajar (the capital of Bahrain) was one of the most famous Arab markets. With the appearance of Islam and, in the seventh year of Hijrah (629 AD) the prophet Mohammed sent a letter with Al-Aala bin Al-Hadhrami to Al-Munthir bin Sawa Al-Tamimi the ruler of Bahrain at the time calling his people to accept Islam. Bahrain soon became the launching post for the spread of Islam and provided Islam with the greatest income came form the revenues accumulate though trade and pearls (Al-Khalifa, K.1993) and settlements expanded in this period, evidence by an unexcavated site near the Tree of Life, thought to be an Islamic settlement, were broken part of a long straight limestone wall is evidence, and many shards of Islamic Pottery are scattered thought the site. The site is thought to date from 12th Century A.D.

Trade continued and expanded in the "Abbasid era" as merchants of Bahrain "Awal at the time" were renowned for their wide-ranging activities, crossing the boarders of India to arrive in china. However Awal also continued to drive its wealth form a nearby economic source, namely pearls. Medieval Islamic archaeological sites were located 40km form the north coast, the settlements were abandoned in the late Islamic times (1500-1750A.D) due to cultural and ecological changes at the time, resulted in the abandonment of settlements south of Zallaq village.

In the 18th century Bahrain's history was influenced by the Al Khalifa family related to the Utoob, a confederation of several Arab tribes who migrated from their original home in Nejd to the shores of the Arabian Gulf. In 1783 A.D. Sheikh Mohammed bin Ahmed Al Khalifa made his victorious entry in to Bahrain. The non-involvement policies adopted in external problems and the trading expertise of the Al khalifa family led to the encouragement of trade and stability in these islands.

The most well known archaeological sites depicting this period in the Southern Governorate, is Sheikh Salman bin Ahmed Al Fateh Fort known previously as Riffa Fort. The fort was built in 1812 A.D, with a distinctive feature of three square towers in each corner, and a round tower at its forth corner at the North West side. Sheikh Salman bin Ahmed Al Fateh Fort was used as a centre of government for many years.

Table 2.1 presents the archaeological sites in the Southern Governorate according to their geographical locations.

Table 2.1 Archaeological Sites in the Southern Governorate

Location	Archaeological sites
West Riffa	Burial mounds, Sheik Ebrahim bin Hammed Al Khalifa residence, Sheik Ahmed bin Ali Al Khalifa residence, Sheik Rashid bin Ebrahim Al Khalifa residence and remnants of an unknown old house
East Riffa	Sheikh Salman bin Ahmed Al Fateh Fort, Sheikh Salman bin Ahmed Al Fateh Fort Mosque, Shamah well, Al hunainiya spring, Al Ateeqah well, Eid prayer yard, cemetery Mosque and unknown residence
Sakhir	Dejah Rest House (Sheikh Abdulla bin Isa Al Khalifa), Sheikha Moza residence, six remnants of unknown old houses and three abandon dried up springs
Zallaq	Abdulla bin Jabir residence, Ali bin Jiham residence and an abandon dried up spring
Um Jadir	Burial Mounds
Hafeera	Abandon well next to the tree of life and remnants of an unknown old house, Islamic settlement and remains from the Stone Age.
Askar	Al sheikh Island, Sheikh Sa-Saha grave and a cemetery
Hawar Island	Several remnants of old houses, three old majlises, an unknown residence, cemetery, mosque, two built pools that collected and stored rain water and several unknown archaeological sits

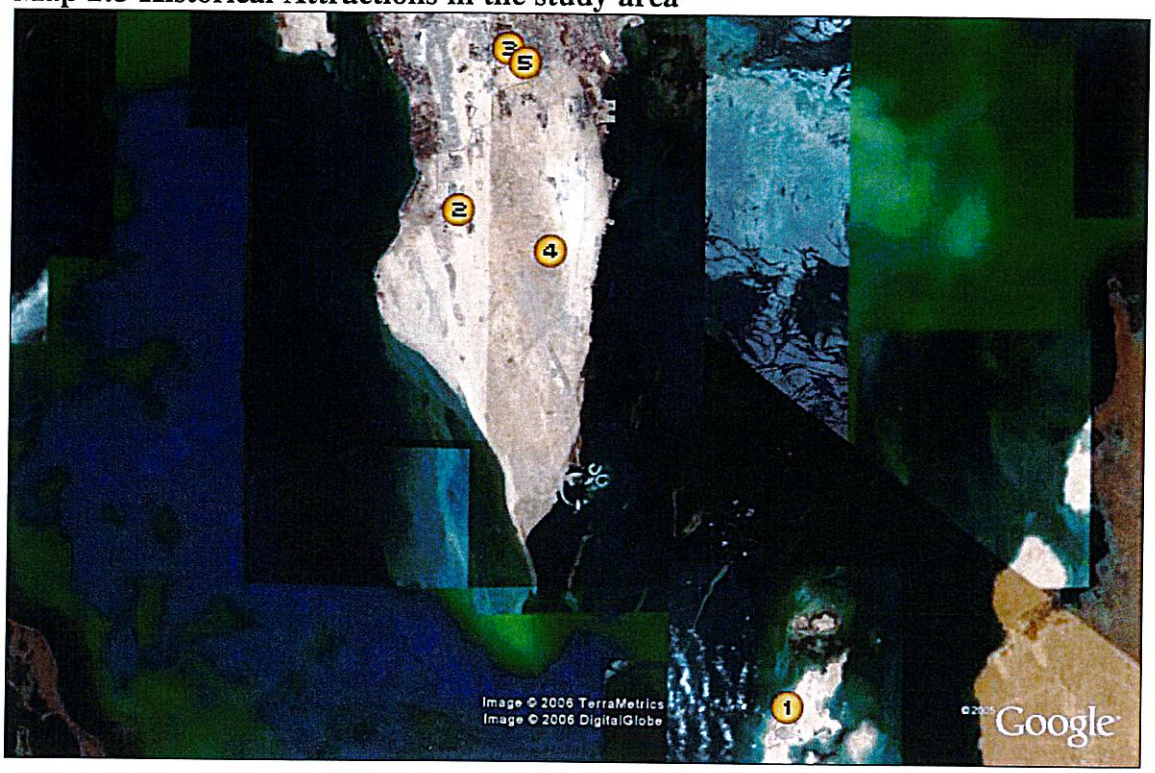
Source: Al Ansari, A. 2003

Most of the archaeological sites depicted in Table 2.1 are in a deteriorating state, either abandoned or misused as dumping areas due to the fact that their value is unknown to the public. Other archaeological sites are on private land and public access is prohibited (Al Ansari, I 2003). Additionally other locations are known but require further studies and excavations of the sites, namely the Islamic settlement near the tree of life.

A few archaeological sites are well known to the public or have been restored in the Southern Governorate, serving as cultural attractions for many tourists and residents alike, namely: Sheikh Salman bin Ahmed Al Fateh Fort, with its adjoining mosque, part of the Hawar Island archaeological sites which are accessible to the public through specialized tour buses on the island. While the burial mounds at Um Jadir and West Riffa are less known to the public, due to the popularity of the royal burial mounds in Aali. The various historical sites in the study area are depicted in Map 2.3.

Other historical and archaeological attractions which are well known to the public but are outside the scope of the study area include Arad Fort, Al-Jasrah House, Seyadi House and Mosque, Sheikh Isa bin Ali Al Khalifa House, Al Khamis Mosque, Bahrain Fort and Barbar Temple and Ad Daraz Temples.

Map 2.3 Historical Attractions in the study area



1-Hawar Archaeological sites, 2-Um Jadir Burial Mounds, 3-West Rifa Burial Mounds, 4- Islamic Settlement, 5-Sheikh Salman bin Ahmed Al Fateh Fort

Source: Google earth 2006

2.1.7-Modern Historical attractions

Oil Well No.1 and Oil Museum are two adjoining attractions which are associated with the discovery of oil in Bahrain. The oil well No.1 is the first oil well in the gulf to spurt on 16th October 1931, situated to the eastern side Jabal Al Dukhan. The oil museum was inaugurated on 2nd June 1992 to commemorate the 60th anniversary of the discovery of oil in Bahrain, the first country in the Middle East to do so. The museum houses fascinating exhibits of drilling equipment, documents, old photographs and a working model of an oil rig. Map 2.4 represents the location of the modern historical attraction in the study area.

Map 2.4 Modern Historical Attraction in the study area



1-Oil Museum and well no.1

Source: Goolge earth 2006

2.1.8-Recreational attractions

Various modern recreational attractions are present throughout the country especially in Manama for example bowling, ice-skating, and the various shopping malls. Particular reference will be given to the major sporting attractions, present in the Southern Governorate, increasing its potential in diversifying the tourism attractions in the county; these include motor sports at the Bahrain International Racing Circuit, Golf, cycling, equestrian sports and a diversity of water sports.

On April 4th 2004, Bahrain was the first country in the Middle East to host the Formula One Grand Prix; the inaugural race was awarded the "Best Organized Grand Prix" by FIA. The Bahrain Grand Prix became the centre of motor sports in the Middle East holding not only Formula One races, but drag races, GT races and Formula 3 races. The circuit is located strategically in the eastern region of the southern governorate, bordering the Southern fence of the University of Bahrain

Campus and the Northern border of the Al Areen Wildlife Sanctuary. (BRC, EER 2002).

Other sporting attractions in the Southern Governorate include, Bahrain's first international 18 hole grass golf course at the Riffa Golf Club opened in 1999. The course covers an area of 160 acres. A 6,817 yard, par 72 championship course, landscaped to follow the natural rolling desert terrain of the valley and harnessing the underlying waters of the Al-Hunayniyah Wadi creating a natural harmony between desert rough, the many water hazards and fairways of green. (Riffa Golf Club web page). Facilities with in the Riffa golf club include clubhouse, restaurant, specialist golf shop, conference room, swing analysis equipment. Other Golf courses built in the Southern Governorate include Bahrain Golf Course and Awali Golf course, said to be the oldest in the Gulf, and perhaps in the Middle East; and host of the 43rd Bahrain Golf Open Championship that took place from 16-17 March. 2006.

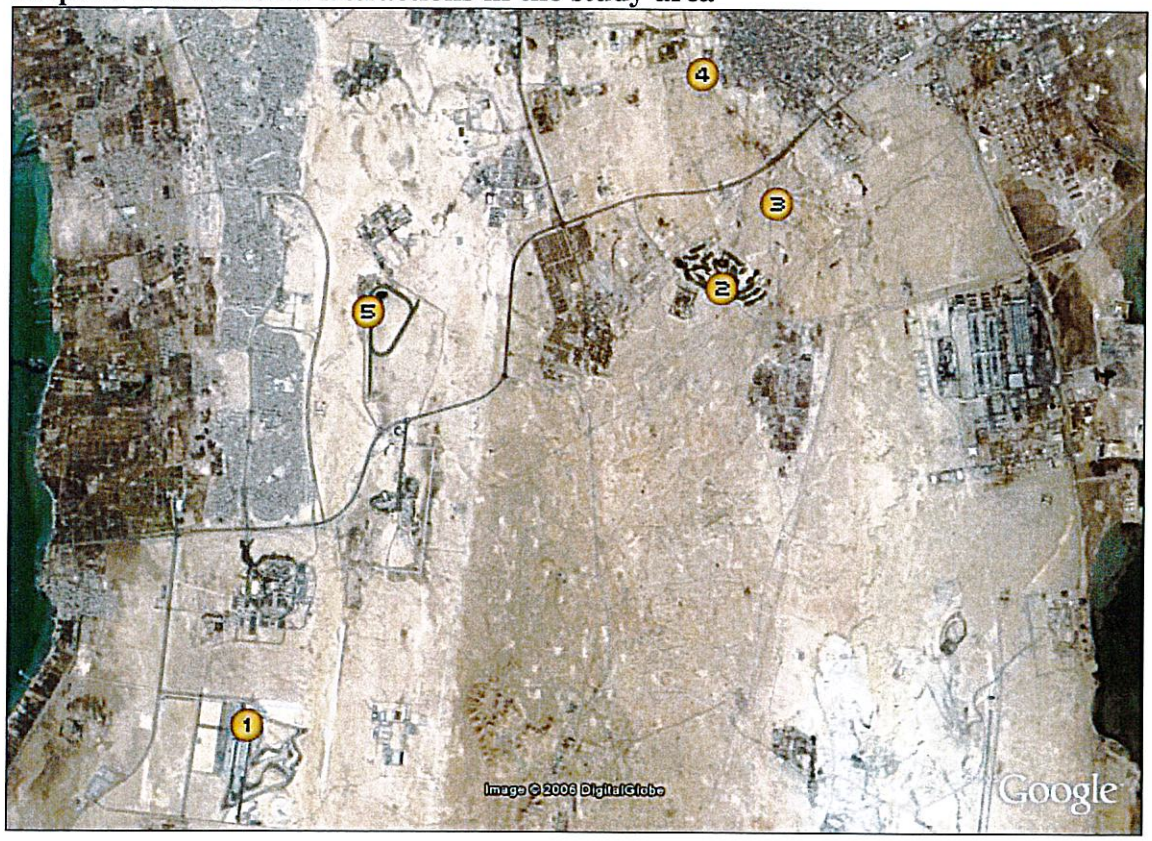
Other associations and clubs in the Southern Governorate include Bahrain Cycling Association, established in 1980 and the Riffa Sports Club established in 1953, contributing to the sporting excellence of Bahraini athletes nationally, regionally and internationally.

Additionally, equestrian sports are extremely popular and well established in Bahrain and tied to the cultural heritage of the people forming a unique bond of love and respect to the horse. The Royal Stables and stud farms in the Southern Governorate play's an important role in the breeding programme of traditional Arabian Horses, keeping their bloodlines pure, as Arabian horses are famous for their stamina and strength. In 1981 the Equestrian and Horse Racing Club in Sakhir, was opened, as the governing body for horse racing in the country. The club organizes weekend races from October to March each year at the horse racing track, which can accommodate 10000 spectators. The program is free of charge, but betting is strictly prohibited. (S.Gov, 2001). Additionally the international Endurance Horse Racing centre is also vital to the equestrian sport in Bahrain.

Furthermore, all other equestrian sports namely: show jumping, dressage, long distance endurance riding, Arabian shows and cross-country events fall under the auspices of Bahrain Equestrian Association, which are organized annually from early October until the end of April.

Water sports can be enjoyed at various coastal strips along the Southern Governorate coastline and around the offshore islands. The areas well known to the public are the Al Jazair Beach, and Hawar Resort. Activities include jet skies, sailing, sunbathing and swimming. The various recreational attractions are depicted in Map 2.5.

Map 2.5 Recreational Attractions in the study area



1-Bahrain Grand Prix, 2-Riffa Golf Club, 3-Awali Golf Course, 4- Bahrain Golf Course, 5-Horse Racing track

Source: Google earth 2006

2.1.9-Education and Research

Bahrain has one of the highest literacy rates in the Arab world at 85% for the adult population, (EB, 2005). A modern education system is established with numerous public and private schools, colleges, universities and research institutions through out the country. Three important institutions located in the Southern Governorate, hold the key to Bahrain's history and future vision; they are the Historical Document Centre; Bahrain Centre for Studies and Research; and the University of Bahrain. Their location within the study area is represented in Map 2.6. Numerous scholars, researchers and students, residents or visitors have benefited form these centres.

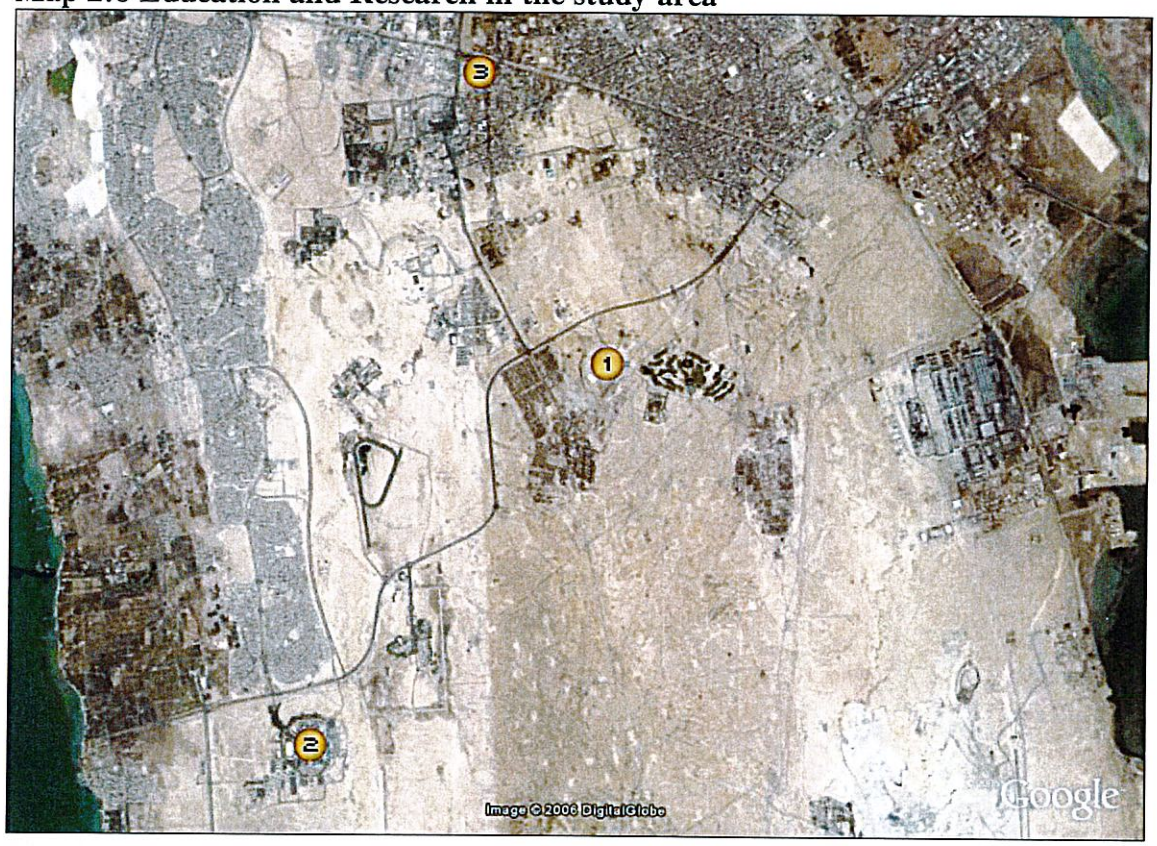
The Historical Document Centre, established in 1977, serves an important role in protecting the cultural heritage of the Island and the region. This is achieved through the preservation of historical documents, manuscripts, ancient maps and photographs. These historical resources are gathering and documenting in order to preserve the documented culture history of Bahrain in particular and the region in general. The centre also publishes the biannual magazine "Al Watheka", the first issue was published in July 1982 (Aba Hussain 1983).

In contrast the Bahrain Centre for Studies and Research, located, near the town of Awali was the first institution in Bahrain for applied research, established in 1981 by Ameri Decree No.1 (S.Gov,2001), offering consultancies to decision-makers in both the public and private sectors. Providing independent scientific research on social, economic and strategic issues; including topics on education, fisheries resources, the environment, water, energy and nutrition and tourism. Conducting surveys, observational studies and experiments for local or external organizations, which are funded either by the Centre or from outside organizations on a contractual basis (BCSR web page).

Furthermore the University of Bahrain as the National University of the Kingdom, takes in 50% of Bahraini high school graduates each year. The University offering Bachelor of Arts and Science degrees from the various colleges of Business and

Administration, Information Technology, Engineering, Education, Science, Arts and Law. Of particular interest is the Department of Mass Communication, Tourism and Fine Arts at the University, providing the human resources that will be needed in the currently expanding tourism sector in Bahrain.

Map 2.6 Education and Research in the study area



1-Bahrian Centre for Studies and Research, 2-University of Bahrain,3-Historic Document Centre

Source: Google earth 2006

2.1.10-Accommodation and services

Accommodations in Bahrain range form world class hotels to guesthouses, apartments and youth hostels. Bahrain has established more than 90 Hotels mainly in the Manama area .The Hotels cover the full range form the one star hotel with its basic accommodations and services to the international standard five star hotels and service, thus catering to the increasing numbers of tourists, according to their budget needs.

There are eight five star hotels, eighteen four star hotels, twenty four three star hotels, thirty eight two star hotels, and eight one star hotels.

Various guesthouses and apartments are available to tourists from luxury apartments to the very basic accommodations. In addition there are two youth hostels the Al Juffair Youth Hostel and Al Muharaq Youth Hostel respectively, with the basic facilities and affordable prices. Furthermore there are eighty travel and tourism offices in Bahrain to provide the appropriate reservations and tours for the visitors (Tourism Affairs 2005). Out of the eighty offices in Bahrain, only one is specialized in ecotourism namely Al Reem Environmental Consultation and Ecotourism office.

The Southern Governorate on the other hand lacks in accommodation and services with the Hawar Resort Hotel as the only Hotel available in the Governorate. But recent developments in this sector will ultimately attract large numbers of travellers and tourists to the Governorate in the near future, Map 2.7 depicts their location with in the study area. Projects include the Al Areen Desert Spa and Resort, Riffa views, Durrat Al Bahrain and Danat Hawar highlighted below:

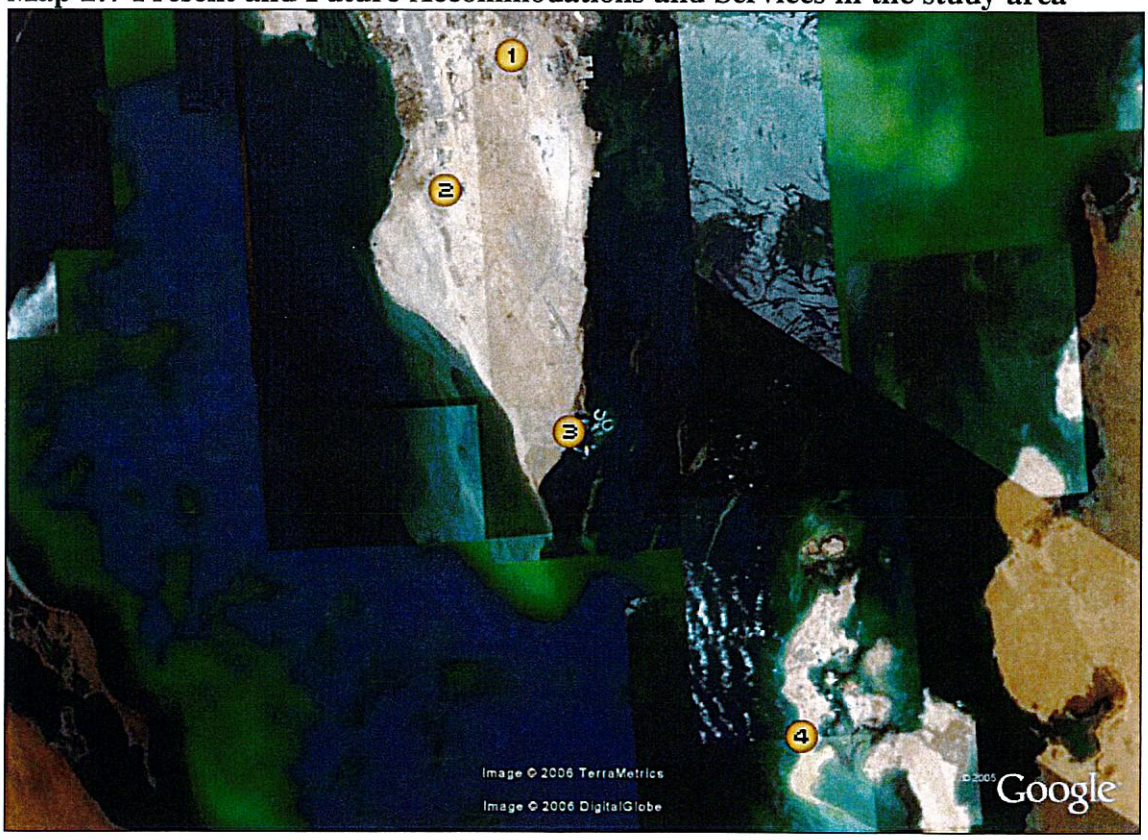
Al Areen Desert Spa and Resort: A US$750 million project situated next to Al Areen Wildlife Park and Reserve and encompassing part of the reserve. The project encompassing four major components : Spa Resort and residence, a Themed Hotel, Residential and Commercial Village comprising five different themed residential communities and a public area with different entertainment facilities and a world class Water Park offering an array of facilities ranging from a variety of therapeutic relaxation and rejuvenation facilities, tourism, leisure and sports activities, hospitality services and themed residential communities with cutting-edge infrastructure (Al Areen Resort web page).

Riffa views: A unique residential development project that is thoughtfully planned to set 900 top quality designed and built homes reflecting an architectural fusion of Middle and Far Eastern themes. The residential area is to be built around the 18 hole

Riffa Golf Course. The project will also include a range of leisure, shopping, educational and community facilities (Riffa views web page).

Durrat Al Bahrain: A US$1 billion world class leisure project, located on the south east coast of the main island. The project will consist of 13 distinctive islands being developed over 20 square kilometres of desert & sea. The project will be the countries largest resort city, one third larger than down town Manama. The Project is expected to accommodate 18,000 residents at full capacity, in addition to 5,000 visitors a day. Certain areas in the resort city, such as the shopping mall and the theatres will be open to the public. Other areas of the resort city will charge admission fees, such as the aqua park, and the theme park (Durrat Al Bahrain web page).

Map 2.7 Present and Future Accommodations and Services in the study area



1-Riffa Views, 2-Al Areen Desert Spa and Resort, 3- Durrat Al Bahrain , 4-Hawar Resort

Source: Google earth 2006

2.2- TOURIST TYPOLOGIES

2.2.1 International versus domestic tourism

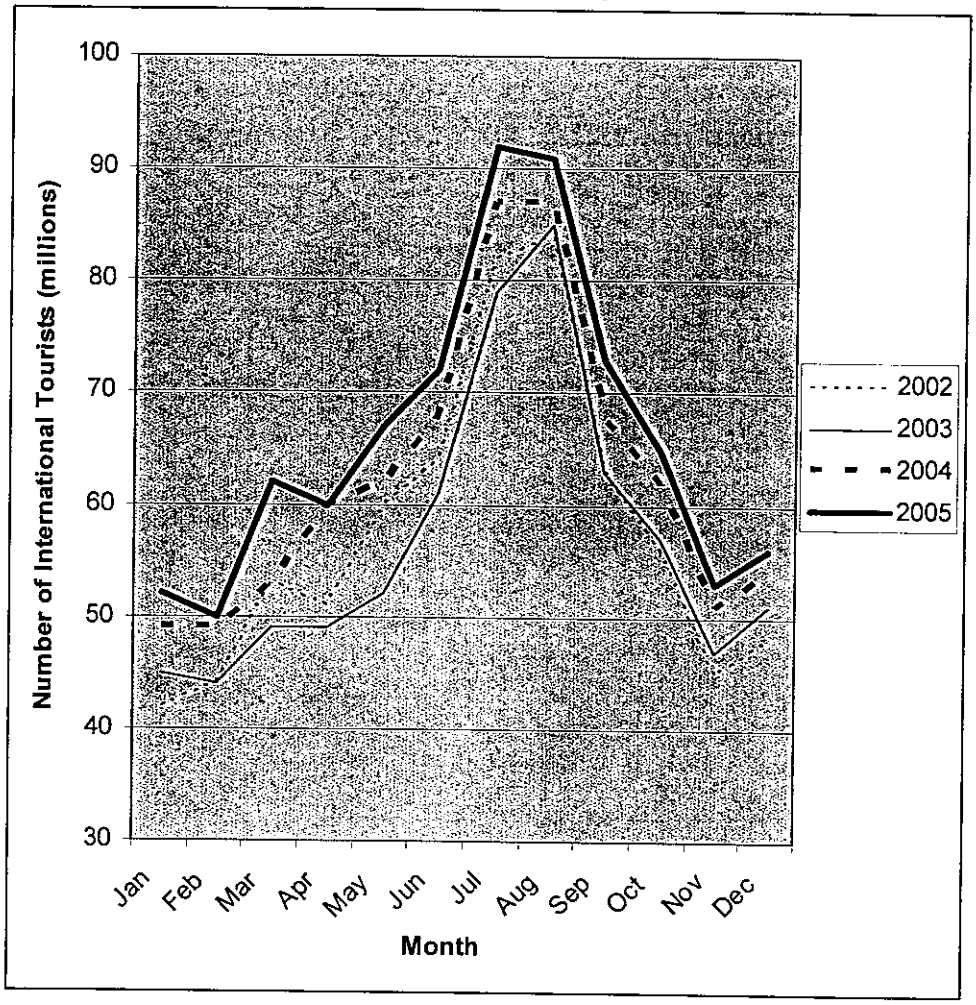
Tourists represent a heterogeneous group with different personalities, demographics and experiences. They can be classified accordingly in two basic ways relating to the nature of the trip. One classification is made between domestic and international tourist. Domestic tourism refers to travel by residence within their country of residence. As there are no crossings of boarders, it is very difficult to measure. Rough estimates of word-wide domestic tourism expenditure are estimated to value ten folds the amount spent on international tourism (Cooper, C., *et al*, 1993). International tourism on the other hand involves travel outside the country of residence. This results in crossing boarders, and therefore is easily measured at the entry points for each country.

Based on detailed preliminary results form a large number of destinations included in the UNWTO January 2006 issue of the World Tourism Barometer, the number of international tourist arrivals in 2005 was estimated at 808 million, up from 766 in 2004. This corresponds not only to an increase of 5.5%, but also means a consolidation of the bumper growth achieved in 2004 (+10%). Although growth was more moderate, it still almost 1.5 percentage points above the long-term average annual growth rate of 4.1% (UNWTONEWS 2006).

By 2006 estimates for International tourist arrivals are expected to grow 4-5% reaching 902 million. According to the 2020 tourism vision, international tourist arrivals are estimated to reach 1.6 billion in 2020 (UNWTO 2001).

Furthermore there is a clear seasonality in international tourist arrivals as illustrated in Figure 2.1 with increasing tourist arrivals peaking in the summer months of June, July and August associated with the summer holidays.

Figure 2.1 International Tourist Arrivals by Month between 2002-2005

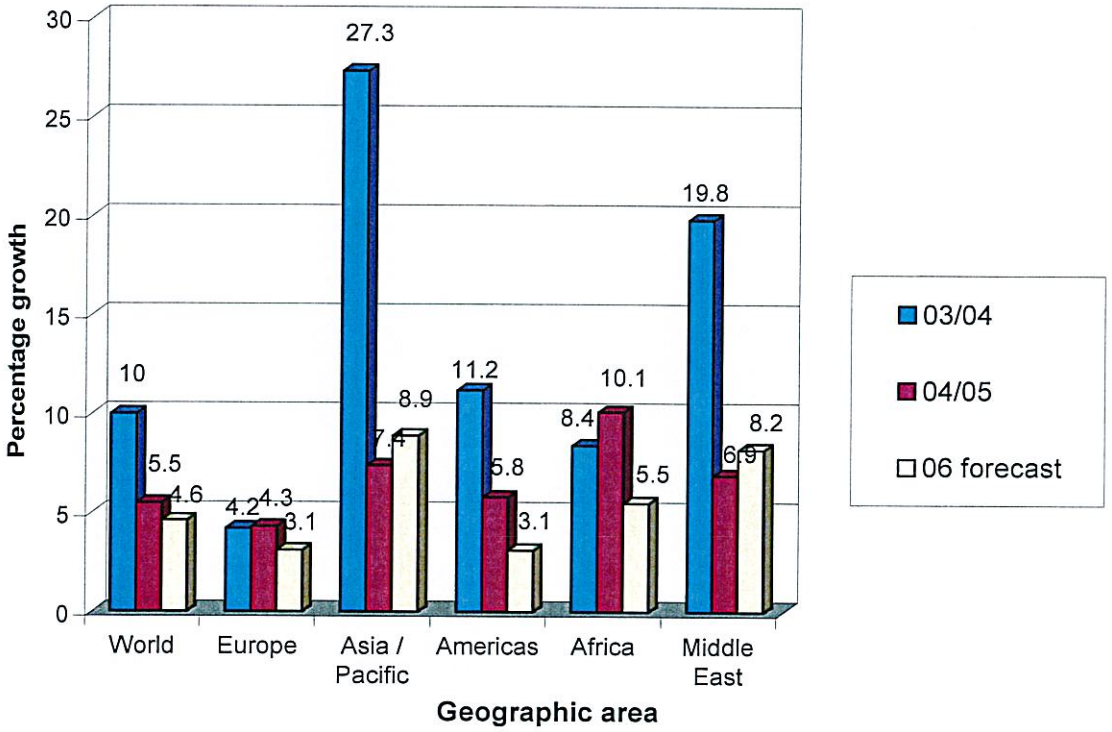


Source: UNWTONEWS 2006

From a geographical perspective results from the UNWTO showed that Africa recorded the best growth in arrivals in 2004 10%, followed by Asia and the Pacific 7.4%, Middle East 6.9%, the Americas 5.8% and Europe 4.3%. The total number of international arrivals to the Middle East reached 35.941 million in 2004. Despite a comparatively slower growth rate in 2005, the Middle East has shown the strongest average annual increase over the past five years. The Middle East has averaged 9% a year as against 7% for Asia and the Pacific, 5% for Africa, 2.3% for Europe and less than 1% for Americas. The total number of international arrivals to the Middle East reached 38.4 million in 2005.

Estimates for 2006 indicate that Asia and the Pacific are expected to be the fastest growing region in the world 8.9% for the growth international arrivals, confirming the dynamic nature of the tourism sector in this region. Further more the Middle East has the second best estimates for 2006 at 8.2% growth in line with the strong performance in 2005. This is attributed to the growing intraregional middle class market, and the governments and private sector's continuous investment in infrastructure development, marketing and improved tourism legislation in the Middle East region. Europe and the Americas they both have moderate growth rates of 3.1%, while Africa is estimated at 5.5%, as illustrated in Figure 2.2.

Figure 2.2 International Tourist Arrivals by Region



Source: UNWTONEWS 2006

Total passenger arrivals for the Kingdom of Bahrain, excluding Bahraini's reached 6,623,482 from the three entry points, air (Bahrain international Airport), land (King Fahad Causeway) and sea (Mina Salman Port) in 2005 as depicted in Table 2.2.

Land access from the King Fahad Causeway provided ease of travel, and low traveling costs. This activated the tourism movement in the region, in addition to introducing new investment opportunities in various sectors of the economy. The majority of arrivals estimated at 80% entered though King Fahad Causeway with an increase of two million arrivals in a five year period from 2000 to 2005.

Further more there is a clear increase in the number of arrivals through Bahrain International Airport, from 719,802 to 1,342,446 arrivals between 2000 and 2005, while the entry through Mina Salman Port received the least number of arrivals of only 5,762 in 2005.

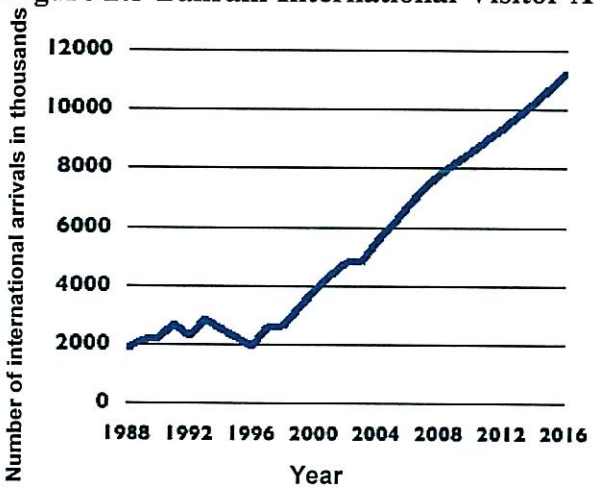
Table 2.2 Actual Figures for Total Arrivals to Bahrain (excluding Bahraini's) by Air, Land, and Sea between 2000-2005

Year / Port of entry	2000	2001	2002	2003	2004	2005
Bahrain Airport	719,802	790,950	920,309	974,159	1,176,460	1,342,446
King Fahad Causeway	3,142,713	3,588,214	3,897,170	3,861,969	4,484,345	5,275,274
Mina Salman Port	6,223	8,769	13,461	8,369	6,526	5,762
Total	**3,868,738**	**4,387,933**	**4,830,940**	**4,844,497**	**5,667,331**	**6,623,482**

Source: Tourism Affairs, Ministry of Information

This is further illustrated in the World Travel and Tourism Council (WTTC, accenture 2006) estimates of international visitor arrivals to Bahrain, showing a clear indication of growth in the coming ten years as depicted in Figure 2.3.

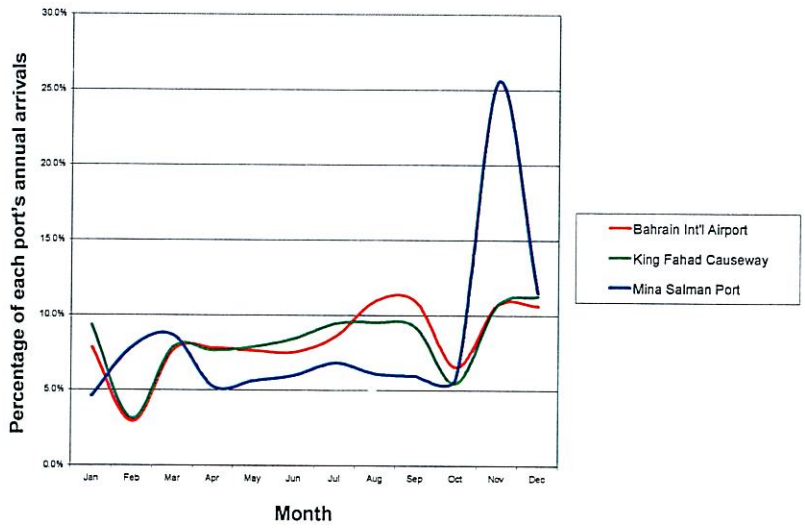
Figure 2.3 Bahrain International Visitor Arrivals in 000's



Source: WTTC, accenture (2006)

Furthermore there is a clear fluctuation in the number of arrivals to Bahrain depending on the time of year as depicted in (Figure 2.4), this phenomenon is called seasonality. There are many reasons attributed to this phenomenon the change of climate over the calendar year, timing of school and work holidays and regular special events held at a destination. The figure shows a clear increase in the winter months from October to January when the weather is present and cool. Further more an increase is also evident in the summer months between July and August corresponding to the summer holidays.

Figure 2.4 Percent of annual flow of arrivals (excluding Bahraini's) per month at each entry port in 2005



Source: Tourism Affairs, Ministry of Information

2.2.2- Interactional versus cognitive-normative typology

Furthermore tourist can be segmented or categorized in to different typologies or roles depending on their interaction with the destination or on their travel motivations as opposed to the distinction between domestic and international tourists. Murphy, P. (1985) identifies two general categories of tourist typologies, interactional and cognitive-normative.

Interactional tourist typologies are primarily based on the interactions between the tourists and the destination area. For example, Cohen, E. (1972) proposes a four-part tourist typology, based on the tourist's desire for the security of familiarity and the level of institutionalization preferred; this includes the organized mass tourist, the individual mass tourist typologies. As opposed to the curiosity to seek out new experiences, shunning contact with the tourism industry as categorized by the explorer and the drifter typologies.

Cognitive-normative tourist typologies focus on the travel motivations of tourists, were tourist motivation can be defined "as the global integrating network of biological and cultural forces which gives value and direction to travel choices, behavior and experience" (Pearce, P. *et al.* 1998). For example, Plog's typology recognizes allocentrics (adventuresome, individual travel), mid-centrics (individual travel to destinations with facilities), and psychocentrics (packaged holidays to popular destinations), depending on how tourists conform to societal or individual desires. Cohen, E. (1979) refers to a tourist's motivations, based on a spiritual center, where tourists seek travel for existential, experimental, experiential, diversionary, or recreational reasons.

2.2.3- Activity based typologies

Further more Moscardo *et al.* (1996) providing a different approach to motivation by stressing the importance of activities as a critical link between travel and destination choice. The motives provide travelers with expectations for activities offered by certain destinations. Therefore motivations and activities often are complex to collapse into rigid categories, (Lowyck *et al.*, 1992).

Features that attract tourists to a site can be considered motivations, but when acted upon, considered activities (e.g. Moscardo *et al.*, 2000). Accordingly tourist can be classified according to their purpose of visit, representing a mixture between motivations and activities. Conventionally three main categories are used:

- Leisure and recreation: Holidays, Sports, Cultural tourism, Visiting friends and relatives (VFR)
- Business and Professional: Business tourism; Meetings, Incentives, Conferences, exhibitions (MICE)
- Other Tourism purposes: Educational and health tourism

Leisure tourism once again was outperforming business tourism in international travel, driven by the increasing availability of no-frills airlines and the continuous demand for holidays. On the other hand business tourism and especially the meetings, incentives, conferences and exhibitions (MICE) sector has picked up in many regions (UNWTO NEWS 2006).

Table 2.3 illustrates the top revenue generating themes in the Middle East and North Africa showing a clear indication to the popularity of the leisure tourism which out performed business tourism in the region. The sun and beach holiday, has the highest share of arrivals followed by cultural tourism and city breaks. While the meetings, incentives, conferences and exhibitions (MICE) contribute to the highest receipts per arrival, this was followed by culture tourism.

Table 2.3 Top revenue generating themes in Middle East and North Africa

Type of Holiday	Share of Tourist Arrivals (million 2002)	Receipts per Arrival US$ in 2002
Sun and Beach Holiday	8.0	459
Culture and Touring Holiday	4.4	640
City Break (entertainment & Shopping)	2.7	328
MICE	1.0	670
Sports	1.0	499
Mountain Holiday	0.7	341
Events and Festivals	0.9	265

Source: UNWTO

Out of the 6,623,482 passenger arrivals visiting Bahrain in 2005, 4,186,542 passenger arrivals stated through customs and immigration authorities that their main motivation for visiting Bahrain was for tourism and leisure in Table 2.4. Additionally 99,783 passenger arrivals stated that their main motivation was visiting friends and relatives which could be added to the tourism, leisure and recreation category as they will be definitely staying more than twenty four hours in the country, though they may or may not use the accommodation facilities, thus making the grand total 4,286,325 tourists.

Further more other reasons of visit include business; employment and labor; work; transit and journalism, drivers of heavy motor vehicles. Form these categories a conclusion may be drawn for business tourism, though the length of stay is not available to confirm a tourism category.

Table 2.4 Actual Figures for Travelers to Bahrain (excluding Bahrainis) by purpose of Visit relating to tourism between 2000 - 2005

Purpose	2000	2001	2002	2003	2004	2005
Tourism & Leisure	2,863,025	3,462,291	3,641,727	3,769,003	4,005,439	4,186,542
Visiting Friends & Relatives	60,201	73,854	90,428	90,428	96,575	99,783
Business	258,549	330,135	542,243	542,243	647,472	626,822

Source: Tourism Affairs, Ministry of Information

From the above table it is clear that leisure tourism which also encompasses visiting friends and relatives has the highest numbers of arrivals totaling 4,286,325 compared to only 626,822 for business tourism in 2005. This is further elaborated through the various nationalities represented for each category as depicted in Table 2.5. The majority of arrivals for the purpose of leisure and tourism are GCC nationals. While the majority of arrivals for the purpose of business and visiting friends and relatives are Asians.

Table 2.5 Actual Figures for Travelers to Bahrain by Nationality for the purpose of Visit relating to tourism in 2005

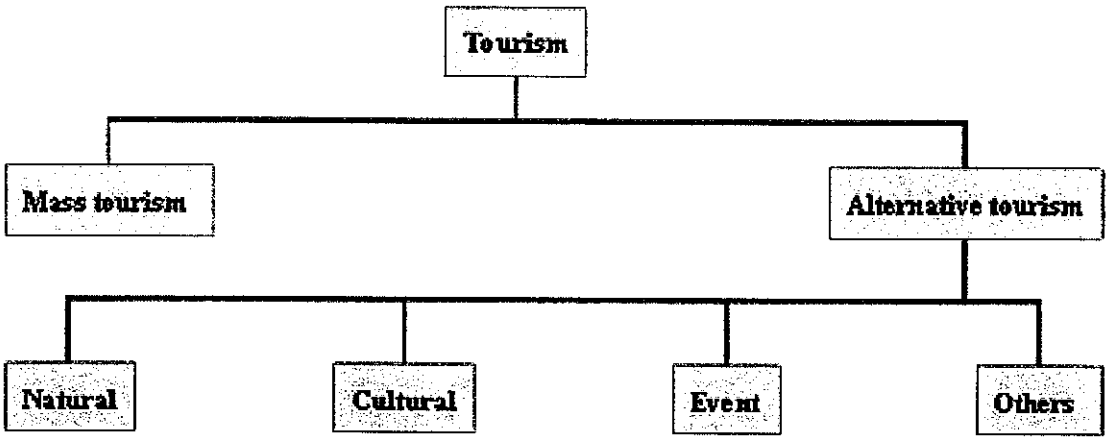
Nationality	Tourism and Leisure	Visiting friends and relative	Business
GCC Nationals	3,929,765	18	2
Non-GCC Nationals / Arabs	16,518	22,269	151,160
Asians	37,799	53,425	261,995
Africans	1,496	1,553	12,784
Europeans	166,879	11,001	58,081
Americans	28,895	4,455	85,443
Australians & New Zealanders	1000	1,568	17,737
Other Nationalities	4,190	5,503	39,620
Total	**4,186,542**	**99,783**	**626,822**

Source: Tourism Affairs, Ministry of Information

2.2.4- Mass tourism versus alternative tourism

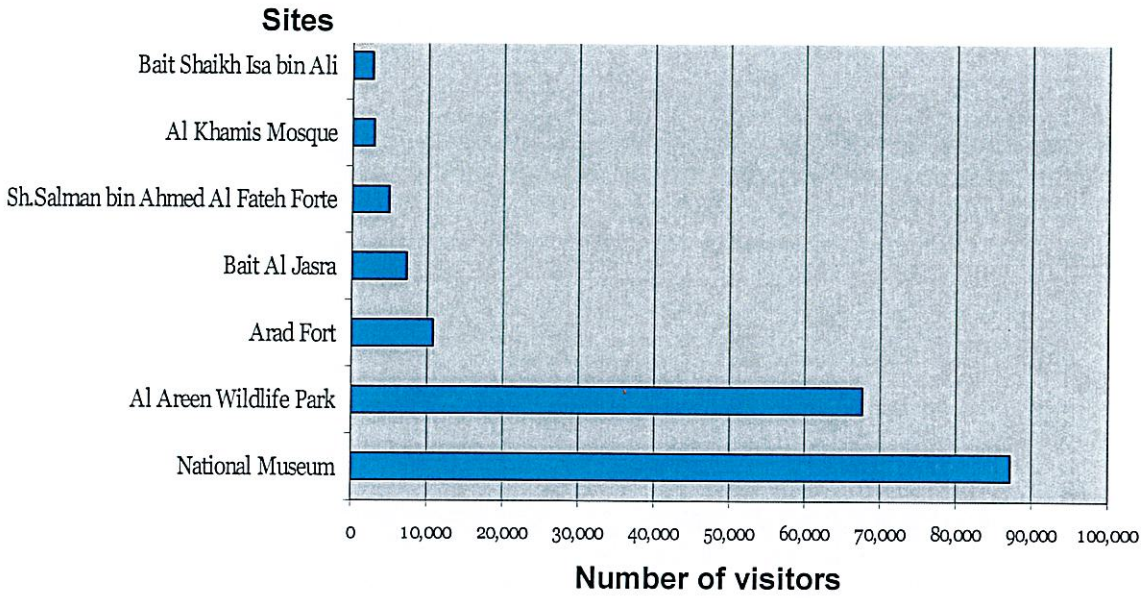
Another approach with increasing relevance to contemporary tourism in accordance with the interaction between the tourist and the destination is to simply classify tourism in to two main categories according to the level and type of interaction with the destination. This puts mass tourism on one end of the spectrum and an alternative small-scale tourism on the other. Where mass tourists prefer to go to areas where there are large numbers of tourists, requiring large infrastructure (hotels, resorts, etc.) to accommodate them. In contrast, alternative tourism or special interest travel, advocates an approach opposite to mass tourism (Fennel, D. 1999). Alternative tourism can be broadly defined as forms of tourism that set out to be consistent with natural, social and community values allowing both hosts and guests to enjoy positive and worthwhile interaction and shared experiences (Newsome, D. *et al.* 2002). Figure 2.5 illustrates the tourism classification scheme, with special emphasis on nature based tourism to be later elaborated in chapter four.

Figure 2.5 Tourism classification



In regard to the kingdom of Bahrain there are only a few cultural attraction were the number of visitors are accounted for, and the only natural area to account for visitors is Al Areen Park. This is depicted in Figure 2.6 representing visitor arrivals to the cultural and natural attractions in 2005. Bahrain National museum showed the highest number of visitors; followed by Al Areen Park.

Figure 2.6 Visitors of Museums and some cultural and natural attractions in 2005



Source: Culture and National Heritage Directorate, Ministry of Information

When accounting for visitors to Al Areen Wildlife Park and Reserve, the administration of the park has further classified the types of visitors in to public visitors, students, and official groups and tourists.

The majority are public visitors reaching 47,681 visitors in 2005, while students represented 18,914 of visitors and only 998 were tourist and special groups visiting the park in 2005. Furthermore there is a clear seasonality in the number of arrivals to the park as depicted in Table 2.6 with lower visitor rates in the summer months, in addition to a low rate for the month of October coinciding with the Ramadan month of fasting, while the sharp increase in November reflects the Eid Al Fater holidays.

Table 2.6 Visitors of Al Areen Wildlife Park and reserve by month and type in 2005

Month	Public visitors	Students	Official groups and tourist	Total per month
January	6,959	1,515	95	8,569
February	4,964	1,586	101	6,651
March	3,999	3,688	106	7,793
April	4,339	2,691	73	7,103
May	3,057	1,122	28	4,207
June	1,999	399	68	2,466
July	2,674	1,272	181	4,127
August	2,316	1,037	132	3,485
September	2,372	929	106	3,407
October	234	306	2	542
November	8,081	2,070	24	10,175
December	6,687	2,299	82	9,068
Total	**47,681**	**18,914**	**998**	**67,593**

Source: Al Areen Wildlife Park and Reserve 2005

CHAPTER 3: SUSTAINABLE TOURISM

Travel and tourism is one of the world's fastest growing industries, with economic, social and environmental implications. These implications can be positive or negative, depending on how tourism is developed and managed. The concept of sustainable tourism was introduced in the late 1980's, as a result of the travel and tourism industries reaction to the Brundland report on sustainable development following the World Commission on Environment and Development (WCED) in 1987. According to the UNWTO definition "Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, and biological diversity, and life support systems (UNEP/WTO 2002).

Furthermore the United Nations Environment Program (UNEP) has been appointed by the Commission on Sustainable Development (CSD) as the Interagency Coordinator or lead agency responsible for implementation of Agenda 21 issues on tourism. Together with the World Tourism Organization (UNWTO), UNEP is the main focal point on sustainable tourism for CSD and the Convention on Biological Diversity. This Resulted in the lunched of Agenda 21 action plan for the travel and tourism industry: "Towards Environmentally sustainable Development", the first industry specific adaptation of Agenda 21.

The action plan sets out a systematic framework to make the tourism industry more environmentally responsible by urging governments to work with local authorities and the private sector wherever possible to develop an environmental program for management decisions regarding the industry and tourism destinations. Cooperation among all interested parties will be the key to developing successful management systems.

Accordingly, sustainable tourism embraced all segments of the tourism industry with guidelines and criteria that seek to reduce environmental impacts, particularly the use of non-renewable resources, using measurable benchmarks, and in improving tourism's contribution to sustainable development and environmental conservation.

From a natural resource perspective sustainable tourism can be categorized in to light green and dark green variants of sustainable tourism according to attitudinal tendencies with respect to tourism and the environment in regard to the degree of environmental protection afforded to the natural environment; the extent to which the precautionary principle is employed; and the nature of environmental management mechanisms used (Hunter, C. 2002).

The dark green variants of sustainable tourism are much more likely to have background training in ecology, geography and environmental sciences. They are most likely to express views from a cautionary or knowledge base perspective, advocating the precautionary principle. There is also a need for anticipatory tourism development planning, and the systematic monitoring of changes to the natural environment using environmental management techniques. Thus the main emphasis is on the protection of the natural resource that supports tourism, rather than the promotion of tourism related economic growth.

This is in contrast to light green thinking were tourism is perceived to constantly harbor beneficial results and the environmental concerns are limited to the maintenance of sufficient environmental quality at the destination to ensure the continued survival of existing tourism products and the development of new ones.

With contrasting view points, the best dialogue in continuing the debate is by benefiting from various case studies and best practices from around the world. The first International Conference on Sustainable Tourism took place in Segovia, Spain in 2004 organized by the Wessex Institute of Technology (WIT) and the Complutense University of Madrid. With the success of the first conference, a second conference is

planed to take place in Bologna, Italy form 6-8 September in 2006. The conference will explore issues concerned with achieving environmental, social and economic sustainability of tourism alongside the governance mechanisms needed to support sustainable tourism.

3.1- SOCIO-ECONOMIC PARAMETER

The socio-economic impacts of tourism includes the creation of jobs, contributes to Gross Domestic Production (GDP), and bringing in capital investment and exports (UNEP 2002).

The WTTC Travel & Tourism Satellite Accounts are based on a 'demand-side' concept of economic activity. The reasoning behind this is that the travel and tourism industry does not produce or supply a homogeneous product or service like traditional industries like agriculture, oil, steel. It is a diverse set of industries offering a multitude of products (consumer and capital durables and non-durables) and services (airlines, accommodation, resort development, entertainment, etc) delivered to the visitor.

This will be clear through the positive and negative economic impacts of the sector on personal consumption, business spending, capital investment, government expenditures, gross domestic product and employment. These statistics are vital for the government in having a broader understanding of the socio-economic impacts of travel and tourism in the country. If utilized effectively in enhancing the benefits of positive growth and reducing the amount of negative leakage out of the economy. This could be achieved through sound tourisms strategies, policies and master plans in the travel and tourism sector in Bahrain, resulting in increasing tourism exports, attracting capital investment, boosting Gross Domestic Production and increasing employment in the sector.

3.1.1-Tourism Demand Determinants and Forecasts

There are two basic aggregates of total demand, Travel & Tourism Consumption and Travel and Tourism Demand. The first aggregate will encompass personal travel and tourism, business travel, Government expenditure (individual) and visitor exports calculated in equation 1. Travel and Tourism Consumption is expected to generate BHD1,143.8 million (US$3,050.1million) of economic activity in 2006, growing (nominal terms) to BHD2,442.4 million (US$6,513.1 million) by 2016.

Equation 1:

(Personal Travel and Tourism + Business Travel + Government Expenditure (individual) + Visitor Exports) = Travel & Tourism Consumption

(327.6 + 75.6 + 10.9 + 729.8) = BHD1,143.8 million

The second aggregate will encompass government expenditure (collective), capital investment and exports (non-visitor), calculated in equation 2. Travel and Tourism Demand is expected to generate BHD413.6million (US$1,106.3 million) of economic activity in 2006, growing (nominal terms) to BHD660.6 million (US$1,752.2 million) by 2016.

Equation 2:

Government Expenditure (collective) + Capital Investment + Exports (non-visitor) = Travel and Tourism Demand

(24.9 + 53.8 + 334.9) = BHD413.6 million

In analysing the demand satellite accounts of the travel and tourism sector in Bahrain and comparing it with the regional market of the Middle East and the global market as illustrated in Table 3.1 a clear picture arises to the economic contribution of tourism to Bahrain's national economy and its future development potential in the regional and global market.

Table 3.1 Bahrain's Travel and Tourism Demand Satellite accounts as % shares of Middle East and Global markets in 2006

Demand	Bahrain	Middle East	Bahrain as % ME	World	Bahrain as % World
Personal Travel &Tourism	869	42,048	2.1	2,844,662	0.03
Business Travel & Toursim	201	13,748	1.5	672,455	0.03
Gov. Expenditures	95	3,824	2.5	300,175	0.03
Capital Investment	143	21,110	0.7	1,010,732	0.01
Visitor Exports	1,936	27,299	7.1	895,833	0.22
Other Exports	888	39,536	2.2	750,365	0.12
Travel &Tourism Demand	**4,131**	**147,565**	**2.8**	**6,474,222**	**0.06**

* all above amounts are in USD million

Furthermore Table 3.2 provides a detailed account of 2006 demand estimates in the travel and tourism sector in Bahrain and their forecasts in the next ten years.

Table 3.2 Bahrain Travel and Tourism Demand Estimates and Forecasts

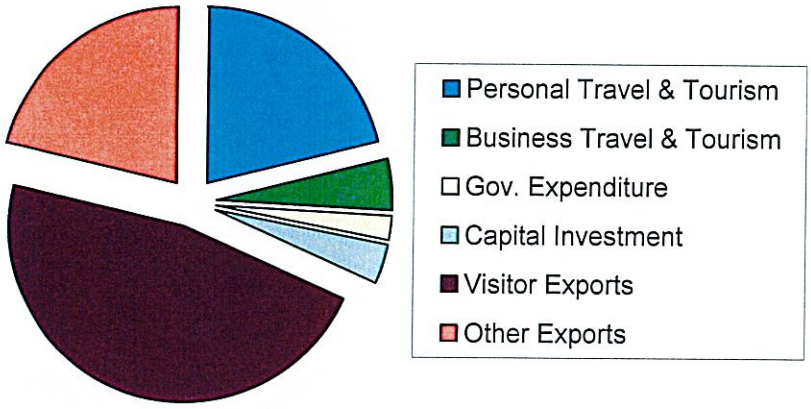
Demand Estimates	2006			2016		
	BHD mn	% of Total	Growth [1]	BHD mn	% of Total	Growth [2]
Personal Travel and Tourism	327.6	16.9	10.0	706.8	18.3	5.6
Business Travel and Tourism	75.6	____	17.9	161.4	____	5.5
Government Expenditure	35.8	3.8	6.0	67.3	4.0	4.2
Capital Investment	53.8	5.1	37.5	123.0	5.9	6.9
Visitor Exports	729.8	15.9	14.0	1,553.8	21.5	5.5
Other Exports (non visitor)	334.9	7.3	6.7	490.8	6.8	1.6
Travel and Tourism Total Demand	**1,557.5**	____	**12.2**	**3,103.0**	____	**4.8**

[1]Real Growth Adjusted for inflation (%); [2]2007-2016 Annualized Real Growth Adjusted for inflation (%)

Source: WTTC, accenture (2006).

Figure 3.1 illustrates the various components of Total Demand for the Kingdom of Bahrain in 2006.

Figure 3.1 Bahrain 2006 Total Demand



Source: WTTC, accenture (2006).

Bahrain Travel & Tourism is expected to generate BHD1,557.5 million (US$4,142.2 million) of economic activity, Total Demand in 2006, growing (nominal terms) to BHD3,103.0 million (US$8,252.6 million) by 2016. Total Demand is expected to grow by 12.2% in 2006 and by 4.8% per annum, in real terms, between 2007 and 2016.Bahrain's Market share of the Middle East Total Demand is 2.8% in 2006, and its market share in the world market reached only 0.03%.

Personal travel and tourism spending by Bahraini residents on goods and services used for travel and tourism, outbound and domestic in 2006 is estimated at BHD 327.6 million or 16.9% of total personal consumption. By 2016, this should reach BHD706.8 million, US$1,879.8 million or 18.3% of total consumption in Bahrain. Personal travel and tourism is expected to grow by 10% in 2006 and by 5.6% per annum, in real terms, between 2007 and 2016. Bahrain's Market share of the Middle East Personal travel and tourism in 2006 is estimated at 2.1%, and its market share in the world market is estimated to reach 0.03% in the same year.

In promoting domestic travel within Bahrain through promotional and marketing campaigns, a larger proportion of personal travel and tourism spending by Bahraini residents would go back in to strengthening Bahrain's economy and reducing leakage form outbound tourism.

Bahrain Business Travel and Tourism on the other hand is estimated at BHD75.6 million, US$201.0 million in year 2006 expenditure by the government and industry, spending on goods and services for employee business travel purposes. By 2016, this should reach BHD161.4 million or US$429.1 million. Bahrain Business Travel and tourism is expected to grow by 17.9% in 2006 and by 5.5% per annum, in real terms, between 2007 and 2016. Bahrain's Market share of Business travel in the Middle East is estimated at 1.5% in 2006. Its world market share is estimated at 0.03% in the same time period. This sector can be greatly enhanced by providing the services and amenities that the business traveler needs to increase and create repeat business. Furthermore, the economy will also benefit through exposing the business travelers to local work, business, and investment opportunities. This can be achieved by focused marketing campaigns that target the business traveler at his three main locations (port of entry, place of accommodation, and place of conducting business).

Government Travel & Tourism operating expenditures are expenditures made by the government of Bahrain for non market services associated with travel and tourism either linked to visitors (individual) for example in providing recreational or cultural tourism services estimated at BHD 10.9 million or to the community (collective) in providing Travel & Tourism services such as promotion, sanitation and security estimated at BHD24.9 million. Thus in summing the individual and collective estimates we reach the Government Travel & Tourism operating expenditures in Bahrain in 2006 to total BHD35.8 million (US$95.1 million) or 3.8% of total government spending. By 2016, this spending is forecast to total BHD67.3 million (US$179.0 million), or 4.0% of total government spending. The Government Travel & Tourism operating expenditures is expected to grow by 6.0% in 2006 and by 4.2% per annum, in real terms, between 2007 and 2016. Bahrain's Market share of the

Middle East government expenditure in travel and tourism is estimated at 2.5%, while Bahrain's market share in the world market is estimated at 0.03% in 2006. Such expenditures are necessary and form the foundation and basic building blocks for a sustainable tourism infrastructure and services, thus indirectly supporting the development and growth of the sector.

Bahrain Travel & Tourism Capital Investment is estimated at BHD53.8 million, (US$143.2 million) or 5.1% of total investment in year 2006. These figures represent the capital expenditure by direct travel and tourism industry service providers and government agencies to provide facilities, infrastructure and equipment to visitors. By 2016, this should reach BHD123.0 million (US$327.2 million) or 5.9% of total investment. Bahrain Travel & Tourism Capital Investment is expected to grow by 37.5% in 2006 and by 6.9% per annum, in real terms, between 2007 and 2016. Bahrain's market share in travel and tourism capital investment in the Middle East market and the world market is estimated at 0.7% and 0.01% respectively in 2006. A suitable mix of investments needs to be planned, unfortunately the majority of resent investments have focused on real estate projects providing accommodation and shopping facilities. More emphasis needs to be placed on recreational and sport facilities to attract inbound tourism.

Visitor exports are expenditures by international Visitor on goods and services within Bahrain, thus benefiting the Bahraini economy. It is estimated at BHD729.8 million, or 15.9% of total exports in year 2006. By 2016, this should reach BHD1,553.8 million, or 21.5% of total exports. Visitor exports are expected to grow by 14% in 2006 and by 5.5% per annum, in real terms, between 2007 and 2016. Bahrain's Market share of the Middle East visitor exports are estimated at 7.1% in 2006, its market share in the world market for visitor exports is estimated at 0.22% in the same time period.

Greater economic benefits can be gained form visitor exports, if an increase is evident in the numbers of visitors attracted to Bahrain, and their length of stay is increase.

This will ultimately increase their average spending amount. Although visitor arrivals have shown a noticeable increase in previous years from 3,868,738 in 2000 to 6,623,482 in 2005, their length of stay remains leveled as depicted in Table 3.3.

Table 3.3 Average Tourist Stay in Bahrain

Year	2000	2001	2002	2003	2004	2005
Average tourist stay/day	2.37	2.01	2.06	1.89	2.02	2.0

Source: Tourism Affairs, Ministry of Information

Other exports (non visitor) include consumer goods exported for sale to visitors or capital goods exported for use by travel and tourism industry providers, estimated at BHD334.9 million, or 7.3% of total exports in year 2006. By 2016, this should reach BHD490.8million, or 6.8% of total exports. Other exports are expected to grow by 6.7% in 2006 and by 1.6% per annum, in real terms, between 2007 and 2016. Bahrain's market share of other exports in the Middle East market and the world market is estimated at 2.2% and 0.12% respectively in 2006.

In summing both the visitor exports and other exports related to travel and tourism, estimated for Bahrain's total travel and tourism exports are BHD1,064.8 million (US$2,831.9 million), or 23.3% of total exports in 2006. By 2016 this should reach BHD2,044.5 million (US$5,437.5 million) or 28.3% of total exports.

3.1.2- Tourism Supply Determinants and Forecasts

The supply side of the Travel & Tourism Satellite Account, were computed though the employment of input/output modeling of the two basic aggregates of demand (Travel & Tourism Consumption and Total Demand), resulting in the production of two different and complementary aggregates of Travel & Tourism Supply: the Travel & Tourism Industry and the Travel & Tourism Economy.

Table 3.4 illustrates the supply accounts of the travel and tourism sector as percent share of Middle East market and the global tourism market.

Table 3.4 Bahrain's Travel and Tourism Supply Satellite accounts as % shares of Middle East and Global markets in 2006

Supply	Bahrain	Middle East	Bahrain as % ME	World	Bahrain as % World
Travel &Tourism Industry GDP (USD million)	1,134	27,340	4.1	1,754,472	0.06
Travel &Tourism Economy GDP (USD million)	2,844	102,218	2.8	4,963,773	0.06
Travel &Tourism Industry Employment ('000)	38	1,673	2.3	76,729	0.05
Travel &Tourism Economy Employment ('000)	84	4,590	1.8	234,305	0.04

The Travel and Tourism Industry captures the explicitly defined production-side 'industry' contribution, the direct impacts only from the traditional travel and tourism providers like the airlines, hotels, car rental companies. While the Travel and Tourism Economy captures the broader 'economy-wide' impact, direct and indirect, of Travel & Tourism. The indirect impacts represent for example the fuel associated with travel and tourism, catering companies, laundry services, and accounting firms. Table 3.5 provides a detailed account of 2006 supply estimates in the travel and tourism sector in Bahrain and their forecasts in the next ten years as GDP.

Table 3.5 Bahrain Travel and Tourism Supply Estimates and Forecasts (GDP)

Bahrain	2006			2016		
	BHD mn	% of Total	Growth [1]	BHD mn	% of Total	Growth [2]
Travel and Tourism Industry GDP	427.5	8.3	15.5	934.8	10.1	5.8
Travel and Tourism Economy GDP	1,072.0	20.9	14.2	2,160.1	23.2	4.9

[1] Real Growth Adjusted for inflation (%); [2] 2007-2016 Annualized Real Growth Adjusted for inflation (%)

Source: WTTC, accenture (2006)

Bahrain's Travel & Tourism Industry is expected to contribute 8.3% to Gross Domestic Product (GDP), BHD427.5 million (US$1,137.0 million) in 2006 for the Kingdom of Bahrain. This is the supply side of travel and tourism industry contribution to Gross Domestic Production and employment associated with the industry, the direct impacts only with an estimated growth rate of 15.5% in 2006.

Bahrain's Travel and Tourism Industry GDP will rise in nominal terms to BHD934.8 million or US$2,486.2 million (10.1% of total) by 2016 with 5.8% annualized real growth. Bahrain's Market share of the Middle East travel and Tourism's industry GDP in 2006 is estimated at 4.1%, its market share in the world market in the same time period is 0.06%. By strengthening the Travel and Tourism industry, this will lead to a larger contribution towards increasing the GDP of Bahrain.

The Travel & Tourism Economy contribution is expected to contribute 20.9% to Gross Domestic Production in 2006 (BHD 1,027.0 million, or US$2,851.2 million). This figure represents the broadest measure of Travel & Tourism's contribution to the Bahrain's economy the direct and indirect travel and tourism consumption with growth rate of 14.2%.

By 2016 the travel and tourism economy contribution should rise to 23.2% (BHD2,160.1 million or US$5,744.9 million) with 4.9% annualized real growth. Bahrain's Market share of the Middle East Travel and Tourism Economy contribution to GDP is estimated at 2.8% in 2006, while Bahrain's market share in the world market is estimated at 0.06% in the same time period.

By strengthening the Travel and Tourism industry, and as it forms a sub-set of the Travel and Tourism economy, thus, the Travel and Tourism economy will also be strengthened, and therefore lead to a larger contribution towards increasing the GDP of Bahrain.

Table 3.6 provides a detailed account of 2006 supply estimates in the travel and tourism sector in Bahrain and their forecasts in the next ten years on employment in the sector.

Table 3.6 Bahrain Travel and Tourism Supply Estimates and Forecasts (employment)

Bahrain	2006			2016		
	Per 1000 jobs	% of Total	Growth [1]	BHD mn	% of Total	Growth [2]
Travel and Tourism Industry Employment	38.2	11.0	9.1	55.5	13.3	3.8
Travel and Tourism Economy Employment	84.4	24.4	8.2	115.7	27.8	3.2

[1]Real Growth Adjusted for inflation (%); [2]2007-2016 Annualized Real Growth Adjusted for inflation (%); 000 of jobs

Source: WTTC, accenture (2006)

The Travel and Tourism Industry employment is estimated at 38,000 jobs in 2006, accounting for 11.0% of total employment and a growth rate of 9.1%. Travel and Tourism industry employment is forecast to total 55,000 jobs or 13.3% of the total by 2016 with 3.8% annualized real growth. Bahrain's Market share of the Middle East Travel and Tourism Industry employment is estimated at 2.3%, while Bahrain's market share in the world market is estimated at 0.05% in 2006.

The socio-economic importance of the travel and tourism industry employment, would be strengthen in Bahrain, if the amount of leakage attributed to the large number of expatriate workers in the sector would be reduced. This leakage is attributed to the transfer of most of the expatriate salaries abroad. Actual figures for the tourism labor force in Bahrain between 2000 and 2004 is depicted in Table 3.7, clearly showing expatriate workers exceeding Bahraini workers in the tourism sector. Further more there is no balance of gender as male workers exceed in numbers female workers for both expatriate and Bahraini's.

Table 3.7 Tourism Labor Force

Tourism Labor Force	2000	2001	2002	2003	2004
Bahraini	1,703	1,931	1,813	1,974	1,862
Male	1,539	1,770	1,577	1,733	1,635
Female	164	161	236	241	227
Expatriate	4,125	3,974	4,455	4,950	5,084
Male	3,314	3,232	3,751	4,202	4,201
Female	811	742	704	748	883
Total labor force	5,828	5,905	6,268	6,924	6,946

Source: Economic Development Board travel and tourism indicators

Estimates for Expatriate workers form 73% of the total workforce in the hotel industry in Bahrain alone in 2005 (WTO 2005 satellite accounts). This can be reduced through employing significant numbers of Bahraini workers in the sector, backed by proper education and training in addition to encouraging female participation in this sector.

Bahrain Travel &Tourism Economy employment is estimated at 84,000 jobs in 2006, 24.4% of total employment, or 1 in every 4.1 jobs with real growth of 8.2%. By 2016, this should total 116,000 jobs, 27.8% of total employment or 1 in every 3.6 jobs and 3.2% annualized real growth. Bahrain's Market share of the Middle East travel and tourism's economy employment is estimated at 4.1% in 2006, its market share in the world market is estimated at 0.06% in the same time period. Since the Travel & Tourism industry employment forms a sub-set of the Travel & Tourism economy employment, thus by increasing the industry employment the economy employment will also increase and as a result the contribution towards increase of Bahrain's GDP.

3.2- ENVIRONMENTAL PARAMETER

The earth's natural resources and its rich biodiversity are the main assets that travel and tourism depends on for the continued arrival of tourist to a destination. After a brief review of the natural tourism attractions in the study area in chapter two, a more in-depth review of the natural resources will be presented below; and the environmental threats associated with tourism and other sectors in the economy.

3.2.1 Natural resources

According to (Doornkamp, *et al.,* 1980, Hill and Webb 1986, Cornes, M. and Cornes C. 1989, Mohammed, S. 1994) five major physiographic regions can be easily identified on the main Island of Bahrain and are represented in the Southern Governorate. The five major physiographic regions occur as concentric units of variable width namely: central plateau and jabals; surrounded by shallow interior basin; multiple escarpments; a main back slope; and coastal lowlands as depicted in Map 3.1 representing the relief and the physiographical sub-divisions of the island.

Central plateau and Jabals: consisting of a broad asymmetrical dome, oriented north-south, with the general surface level of 40 to 60 metres, and the highest point at Jabal Al Dukhan reaching 122.4m.

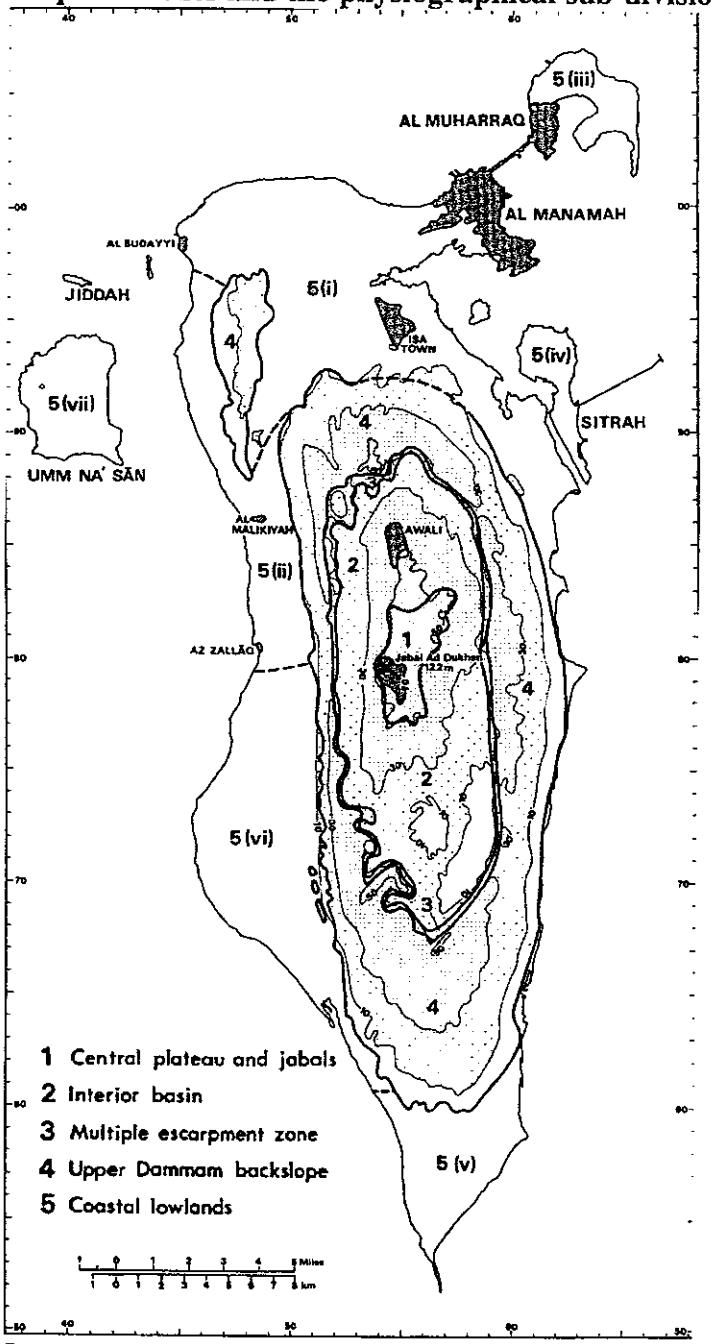
Interior Basin: as a result of the main dome being uncovered a long its crest, due to weathering, it formed an asymmetric ring of lowlands, called the interior basin encompass internal drainage pattern. The surface elevation ranges form 70m to less than 20m around the basins margin.

Multiple Escarpment Zone: a rim surrounding the interior basin, rising abruptly from the floor of the interior basin to reach a height of around 50m above sea-level at its crest.

Backslope: a gentle decline from the crest of the multiple escarpments to the edge of coastal lowlands, with variable widths.

Coastal lowlands: starts from the base of the backslope with elevations less that 10m to sea level composed of accretion plains, beach ridges, sabkhas and dunes.

Map 3.1 Relief and the physiographical sub-divisions



Source: Doornkamp, et al. 1980

In these major physiographic regions are a diversity of distinct terrestrial and marine ecosystems are present in the Southern Governorate, they include marine and terrestrial ecosystems. The marine ecosystems are diverse, including inertidal habitats, seagrass beds, coral reefs and offshore Islands. Terrestrial habitats on the other hand are predominantly arid deserts, with a few almost dried up springs.

1- Fresh water ecosystem

Throughout history, Bahrain was famous for its numerous fresh water springs, especially in the northern eastern and western coastal areas were date palms and alfalfa plantations were heavily cultivated for thousands of years representing the cultural heritage of the Island as it was referred to as "The Island of a million date palms" just a few decades ago. The Southern Governorate numerous wells and springs were well known in the past as a vital source of fresh water for the inhabitants. In East Riffa, three wells were in the south and the forth was a spring in the north called "Ain Al Hunainiya". In West Riffa the inhabitants drank from "Um guwaifa" well. In addition three springs were located in Shakir area, namely: "Um hasah", "Um almomian" and "Aljanobiah". Askar village on the other hand used two sources of fresh water, the first from the spring "Ain Yousif" and the second from the numerous pools that collected and stored rain water. Furthermore both Jaw and Aldoor villages used the wells and pools from the "Alshiukh" valley and "Al aleem" area respectively. (S.Gov 2002). The fresh water springs represented the most biologically diverse inland water ecosystem at the time, supporting a wide range of introduced and native species, including vascular plants and algae, insects, brackish water fish, amphibians as well as resident and migratory birds.

Unfortunately during the past three decades this unique habitat was under great pressure due to rapid urban development, which resulted in the uncontrolled and continuous over exploitation of the underground water to the point where all the fresh water springs were affected. In the Southern Governorate there still remains an remembrance of this unique ecosystem at "Ain Alshiukh" and "Ain Al Hunainiya", though the level of the water has dramatically decreased and is not suitable to sustain this ecosystem. This has resulted in threatening and subsequent extinction of the wild species and diversity of the associated flora and fauna in these habitats. With special emphasis on the only fresh water terrapin *Clemmys caspica*, and the only species of Marsh frog *Rana ridibunda* to be found in Bahrain (Mohamed, S. and Al Mahmood, M. 1994).

2- Desert ecosystem

The terrestrial landscape of the Southern Governorate, is predominantly desert, with distinct desert habitats represented by; the rocky jebels, central depression with surrounding escarpments "scrub desert", the soft sandy broom bush areas "broom bush desert", backslopes more sandy than stony with distinctive dry gorges known as "wadis" fall away to the south east and south west, the extensive sterile flats which extends southwards from Wasmiya and the Riffa desert. (Hill, M. and Webb, P. 1983).

Despite the barren appearance of the desert, it supports a recognizable diversity of vascular plants, made up of four main types, each with its distinct adaptation to survive in the desert environment, the majority being the halophytes which can withstand high salinity contents in the soil such as *Suaeda vermiculata*, and the xerophytes that can tolerate the drought conditions of the desert such as *Zygophyllum qatarense*. The other two types include the phreatophytes that utilize the underground water table and the ephemerals, which are opportunistic plants that capitalize on infrequent favourable conditions in the desert like the rainy season by having a short life cycle to produce dormant seeds that can survive for several years in the desert waiting for the right conditions to germinate (Virgo, K. 1980).

Many different plant communities are associated in the desert habitat providing food and shelter for many animals such as mammals, birds, reptiles, arachnids and insects. The Arabian Reem Gazelle *Gazella subgutturosa marica* is the only true wild Antelope in the desert environment in Bahrain form the order of Even-toed Ungulates. Two subspecies of Arabian Wild hares *lepas capensis atallahi*, and *lepus capensis arabicus,* additionally two true wild rodents are also associated with the desert environment, Lesser Three toed Jerboa *Jaculus jaculus* and the Sundevall's Jird *Meriones crassus crassus* (Al-Khalili, A.D 1990). Reptiles include Spiny tailed Lizard *Uromastys microlepis,* Jayakar's Agama Lizard *Agama jayakari* (Cornes, C. 1984). While some avian species of interest in the desert environment include Desert Lark *Ammomanes deserti*, and Houbara bustard *Chlamydotis undulata*.

3- Intertidal ecosystem

The principal wetlands in Bahrain are coastal mudflats, occurring around many of the islands and covering large area in relation to the size of the country, with the larger mudflats to be found on the east coast (Mohammed, S. 1995).

The Southern Governorate encompasses various intertidal habitats such as rocky shores, mudflats, classical sandy beaches and mix sand/rock habitats. A large area of inter-tidal mudflats occurs on the east coast of the Southern governorate at Ras Hayan and to the north along the Askar village coastline, mudflats also occur on some of the Hawar Islands. This unique habitat is the richest area in the intertidal zone, owing to the high biomass content in the soil. This results in the presence of many aquatic marine animals feeding in the area during high tide. Furthermore various species of waders are attracted to these areas due to the abundance of invertebrates to feed upon, this is especially important in the autumn and spring migration of these birds to sustain them in their long journey ahead.

The classic sandy beaches in the Southern governorate are restricted to the south, south-west coast and some offshore islands, for instance Mashtan. In the southwest coast at Mumtalah, is a long strech of sandy beach backed by low sand dunes and an adjacent inter-tidal mudflats and sand flats.

The extensive limestone cliffs on some Hawar islands, such as Umm Hazwarah and Al-Wakurs, are good examples of classic rocky shores found along their coastline. In contrast, the mixed sand/rock habitat formed by a rocky substrate covered with a sand veneer is a dominant coastal habitat both in the intertidal and sub tidal areas.

Most intertidal habitat types extending along Askar and Jaw coastlines have been modified by coastal reclamation in addition to parts of the Hawar coastline. Further dredging and reclamation on a larger scale is due to Durrat Al Bahrain project occupying a total area of 20 km^2 in the southeast coastline.

4- Marine ecosystem

The marine areas surrounding the Kingdom are an important natural resource, supporting many species of fish, shrimp, dugong, marine turtle and various other marine species. Of particular importance are the seagrass beds and the coral reef habitats.

Seagrass beds are amongst the most distinct key marine habitats surrounding the islands; they cover large area of the shallow waters, represented by four species namely: *Halodule uninervis, halophila ovalis, halophila stipulacea* and *Syringodium isoetifolium.* Hawar Islands and Mashtan Island contain extensive areas of seagrass beds in their vicinity, other areas to the south east and to a lesser extent to the west are covered with seagrass beds.

A high diversity of invertebrate and vertebrate animals are associated within this habitat. Sea grass beds are important foraging grounds for the threatened species of sea-cows *Dugong dugong* and green turtles *Chelonia mydas.* Additionally the economic value to the of sea grass meadows is stemming from their importance as feeding grounds for the commercially important rabbitfish *Siganus canaliculatus*, nursery areas for the commercial prawn *Penaeus semisulcatus*, and a refuge for a high density of the spats of the pearl oyster *Pinctada radiate*. (BNR 2006).

Threats to the sea grass beds include regular shrimp trawling activities that cause damage to this unique ecosystem, in addition to reclamation and dredging activities causing either direct damage to the habitat or indirectly though the large amounts of silt produced in the process that reducing visibility and photosynthesis. The amount of dredged sand is estimated at 2.5 million Tons each year in the Kingdom (Aba Hussain, A. *et al* 2005)

Furthermore coral reefs are the most rich and attractive marine ecosystems. Three main forms exist around the island: fringing, platform or patch and atolls. They were built with the beginning of the last interglacial period a few thousand years ago. The

ability of the small polyps in building calcareous structures around their soft bodies initiated the formation of the colonial stony coral reef. Such structures provide a suitable substrate for fouling algae and other sessile organisms, many invertebrates and a diversity of fish fauna (Mohammed, S. & Almahmood, M. 1994).

Coral fringes occur around the north and east coast of the main island of Bahrain and off Muharraq and Sitra. Further offshore to the north and east there are several large platform reefs and various small patched reefs which may have reef slopes extending to 10m depth. Thirty one coral species in nineteen genera have been reported. (Mohammed, S.1995). In the Southern governorate reefs are found off Askar on the east side, Fasht Buthur, Fasht Taghalib, in addition to the largest reefs of Fasht Adhm all are situated on the east side. On the west side of the island Fasht Nihbur is situated.

Coral communities are at the very limits of tolerance to salinity, temperature and water depth. Widespread coral mortality was experienced through two major coral bleaching events: summer of 1996; and more severely in the summer of 1998. These events resulted in the massive coral mortality (> 90%) of corals on Fasht Al Adhm, west Fasht Al Dibal, Khwar Fasht, north Jabari, Samahij, and Fasht Al Jarim. Other threats include oil pollution, trawl fishing and sediment load, the later resulting from dredging and reclamation causing fine silt to accumulate on the soft polyps causing coral mortality.At present, the only live coral reef surviving in Bahrain are on Abul Thama, a small raised area surrounded by 50m deep water about 72km north of the main island; and in a few scattered patches at several reefs situated in deep waters with only 28 species of coral in Bahrain (BNABPOA 2003).

5- Offshore Islands

Out of the more than 40 low-laying islands in addition to numerous islets, shoals and patches of reefs representing the archipelago of Bahrain. A good number of offshore islands are scattered in the southern parts of Bahrain's territorial waters, included in the geographical extent of the Southern Governorate. These islands may range in size from over 40km^2 as the case in the Hawar Islands to only 0.1km in Ajira Island. Differences also occur in elevation, some are lowlands, while others are cliff islands reaching elevations of 20m above sea level (Mohammed, S. 1994). Many of the islands support breeding colonies of birds, various wildlife and halophytic plant communities. Two off shore islands are designated as protected areas in the Southern Governorate, due to their importance. They are the Hawar archipelago and Mashtan Island located to the southeast. Other offshore islands in the southern governorate comprise, to the east; Jazirat Ash Shaikh and Um Jaileed, to the south- south east; Al Mutarid Island, Qassar Noon and Halat Noon. To the south-southwest include Hidd Al Hul and Qassar Muhana.

6- Protected Areas

Out of the five designated in-situ protected areas in Bahrain, three are in the Southern Governorate namely: Al-Areen Wildlife Park and Reserve, Mashtan Island and Hawar Islands. Protected areas are a major attraction in nature based tourism and more specifically ecotourism; in addition to their vital role in conservation.

1) Al-Areen Wildlife Park and Reserve: Situated adjacent to the central western coastline of the main island in an open desert area, Al-Areen Wildlife Park and Reserve occupies a total area of about 8 km^2. As the name implies, it is divided into two parts the wildlife park and the reserve, built to modern standards allowing most animals to live in open semi-natural habitats with a minimum of enclosure and managed on a daily basis.

2) Mashtan Island: An offshore island located to the south east of the main island of Bahrain and north to the Hawar archipelago surrounded by extensive sea grass beds that supports a rich marine fauna.

3) Hawar Islands Protected Area: The archipelago of Hawar is located to the south east of the main island of Bahrain and consists of more than 30 small limestone, desert islands and islets. The largest island Hawar covers more than 40Km^2, the surrounding seas are shallow, with depths of less than five meters in most areas (Mohammed, S. 1995). The Hawar Islands are featured by the highest level of ecosystem integrity with extensive desert, mudflats and sea grass beds serving as valuable feeding and breeding grounds for a wide range of terrestrial and marine species. The islands are an important nursery ground for the various fish species in the area. Furthermore, it is an important feeding ground for the marine green turtle and dugong. Additionally, Suwad islands sustain the world's largest breeding colony of the Socotra Cormorant. Only certain parts of the main Hawar Island are accessible to the public, in the areas surrounding the Hawar Resort Hotel and the chalets.

3.2.2-Threats to the natural environment in the study area

The travel and tourism industry is an industry reliant on the natural and cultural resources of a destination for its development and prosperity, while at the same time it might affect the very resource it is dependant upon.

In the study area various human impact are felt on the natural environment, either as a result of pollution from the various industries, or physical alteration and destruction of important habitats form the various construction activities. Map 3.2 illustrates the locations of point source pollution in the study area.

Map 3.2 Point source pollution in the study area



Source: Google earth2006

Thus on the east cost of the study area, there exists two desalination plants namely: Abu Jarjoor desalination plant; and Ad-Dur reverse osmosis desalination plant. The thermally heated brine water discharged from these plants affect the marine habitat, increasing both the sodium content and water temperature in the surrounding area of the outfall, thus altering physical environment and affecting the associated flora and fauna in the area.

Furthermore the industrial activities of Aluminium Bahrain (ALBA) and Bahrain National Gas Company (BANAGAS) discharges hydrocarbons, heavy metals, phenols, sulphides, aluminium, suspended solids to the atmosphere, in addition to the effluent discharges by ALBA to the marine environment (Madany, I. and Al Sayed, H. 2000).

3.3- GOVERNMENT INITIATIVES

Bahrain's commitment to the management of natural resources is enshrined in article 11 of the Bahraini constitution, which states that "all natural resources, singly and collectively, are the property of the State, which will protect them and invest them wisely in the interest of State security and the national economy" (Khamdan, S. 1998).

This was followed by the Land Use and Planning Act (1971), the Water Act (1971) and Public Health Act of 1975, which constituted the main environmental status at the time and provided some planning protection for sites which are threatened by proposed activities involving land-claim, construction, quarrying, groundwater extraction pollution respectively (Mohammed, S. 1994a).

Protected areas are one of the vital tools in the conservation of ecosystems and biodiversity, it is an effective tool used by governments in that regard. The Kingdom of Bahrain designated five in-situ protected areas, three of which are in the Southern Governorate namely: Al-Areen Wildlife Park and Reserve, Mashtan Island and Hawar Islands. The remaining two protected areas are Dhohat Araad and Tubli Bay located in Al Muharraq Governorate and Central Governorate respectfully. In regard to their management only Al-Areen has a management plan and an authority managing it. In contrast Hawar Island protected area has so many authorities involved that it is not clear what people can do at this site (Mohammed, S. 2002). To date due to financial obstacles, an integrated protected areas system has not been developed in Bahrain.
Furthermore the conservation of biodiversity in Bahrain falls within the responsibilities of the Public Commission for the Protection of Marine Resources, Environment and Wildlife (PCMREW). The PCMREW is the competent authority with a wide mandate to protect the environment, to conserve biodiversity and to ensure the sustainability of marine resources. The PCMREW is divided into two key general directorates. The General Directorate of the Environment and Wildlife Protection (GDEWP) conserves wildlife and establishes the protected areas while the

General Directorate of the Protection of Marine Resources (GDPMR) imposes regulations on fishing activities to protect commercial and endangered marine species. The Ministry of Municipality and Agriculture Affairs is responsible for the conservation of cultivated plant and domesticated animal species (BNR 2006).

The first National Environmental Strategy (NES) for the Kingdom was developed in 2004. The strategy was prepared with the financial and technical support from United Nation Development Program (UNDP), aiming to ensuring environmental protection and better planning for the future of the Kingdom. Nine sectors were chosen namely: tourism and cultural heritage; marine environment; Education and awareness; biodiversity; agriculture; atmosphere; water resources; environmental health; and industry, petroleum and energy.

Tourism and cultural heritage chapter highlights the tourism resources in the country, its strengths and weaknesses and ways of promoting the sector. The strategy includes two chapters dedicated to biodiversity and marine resources sectors. While the biodiversity chapter was deliberately prepared taking into account the objectives and the key requirements of the Convention on Biological Diversity (CBD) (BNR, 2006). Furthermore Bahrain has prepared its first national report to the CBD in 2006 following the fourth guidelines of the national reports with technical support from the UNDP. Additionally the remaining seven chapters will also contribute to a better vision for the sustainability of the other resources.

Recently there has been a strong commitment by the government in strengthening the tourism sector, with the overall aim of strengthening Bahrain's position as a high quality leisure and tourism destination for the outbound markets of the Middle East, Europe and Asia. This will be achieved though a new national tourism vision, strategy, and master plan; developed as part of the comprehensive national reform program for the Kingdom of Bahrain, in strengthening the tourism sector to be one of the key drivers in terms of GDP and employment.

The Economic Development Board (EDB) is currently working on defining the tourism vision and roadmap and anchoring it with the key stakeholders. This has been followed by several processes in establishing the country's comprehensive tourism strategy and master plan. The process started in June 2005, with Bahrain's tourism workshop on 22 June 2005, to establish a joint understanding of the tourism situation and identify the elements of a potential vision. This was followed by a second Bahrain tourism workshop on 28th September 2005 to establish the top private and public stakeholder's consensus on the tourism vision and roadmap.

Further developments will translate the vision into a workable tourism development strategy and physical plan. The aim of the strategy is to clearly identify target source markets and anticipate demand, while the physical plan will identify priority tourism development zones and the required products in those areas. Furthermore work is currently underway to establish the Tourism Development Board (TDB) a quasi-government agency with significant private sector representation, providing tourism investors with the right legislative and planning infrastructure through coordinating developments and regulation of the tourism industry in accordance with the comprehensive master plan. The Key functions for the Tourism Development Board as stated in the Bahrain tourism workshop in June are as follow:

- Define national policies on tourism
- Develop the tourism plan and oversee its implementation
- Develop tourism zones and investment areas
- Lead the countries destination marketing
- Regulation and licensing in the sector
- Develop and manage comprehensive tourism industry information systems
- Tourism workshop training

Furthermore Bahrain Chamber of Commerce and industry (BCCI) tourism committee launched a survey among the business community and travel industry leaders, through a questionnaire targeting business establishments, travel agencies, hotels and other

groups to give their suggestions to improve the tourism sector. The results of the questionnaire with the added comments form the BCCI tourism committee will formulate an action plan to support the government's tourism promotion drive.

Recently on 15th of May 2006, the Crown Prince and Economic Development Board (EDB) President Shaikh Salman bin Hamad Al Khalifa received at Riffa Palace the blueprint on the national strategy towards promoting tourism in Bahrain (GDN 2006). The blueprint was developed by a taskforce led by Works and Housing Minister Fahmi Al Jowder as part of comprehensive economic reform initiatives in coordination with government departments and the private sector. The tourism strategy is expected to be released in late November 2006.

CHAPTER 4: SUSTAINABLE NATURE BASED TOURISM

4.1- HISTORICAL OVERVIEW

4.1.1-Sustainable nature based tourism

The earth's natural resources and its rich biodiversity are the main assets that travel and tourism depends on for the continued arrival of tourist to a destination. An increase in the number of intrepid travellers seeking pristine natural areas and cultural site in an attempt to break out of the pressures associated with urban expansion was noticed. In Wilson's 1992 investigation of the social construction of nature, the book explicates a mid-nineteenth century origin for nature tourism due to a shift from a pastoral to a consumer approach to nature (Wilson, A. 1992).

Due to the reliance of nature tourism on environmental resources and is strongly interlinked with nature conservation especially in protected areas, (Budowski 1976) has classified the relationship between nature conservation and tourism into three categories.

1. Conflicts emerge when tourism has detrimental effects on the environment and when there is little contact between tourism and conservation. Conflicts may also arise from a situation where tourism is a victim of an already deteriorated environment.

2. Coexistence indicates that under certain circumstances, nature conservation and nature tourism may coexist to each other's benefit. For example, coexistence may be attained by dividing areas to different use in time and space.

3. In symbiosis, the protection of environment can be enhanced by tourism, when appreciation towards nature and conservation increases as a consequence of tourism.

With growing fears of impacts from unregulated tourism activity on sensitive natural areas, conservationists, tourism operators and policy makers in different parts of the

world have attempted to develop forms of tourism that preserves the values which initially attracted tourists. The first occasion that sustainable nature based tourism came in to the consideration of the Commission on Sustainable Development (CSD) was at the Barbados conference in 1994. A sub-category of discussion on sustainable development options in Small Island Developing States (SIDS). The most significant outcome of the Barbados conference was the development of a Programme of Action (POA) that included issues on sustainable tourism as one of the 15 priority areas addressed. Nature based tourism was seen as a sectoral economic development measure with a very important role for future growth and stimulation of other economic sectors of SIDS (Soleimanpour, H. 2006). Further references were made to ecotourism management in fragile and interdependent coastal zones and unspoiled areas, creating opportunities for sustainable tourism developed.

According to (Fennel, D.1999) various types of special interest travel have emerged which consist of nature travel, adventure travel, and ecotourism. Were nature tourism is the most general term and is defined as travel for the purpose of enjoying undeveloped natural areas or wildlife. Adventure travel is similar to nature travel, but includes an element of risk for the traveler. In addition to the enjoyment of natural areas, ecotourism by definition specifically incorporates the principles of sustainability, a focus on experiencing and learning about nature, a local orientation with respect to economic benefit and culture, and contributes to the conservation or preservation of the natural area.

4.1.2-Ecotourism

A wide variety of researchers and authors attempted to describe and define the term ecotourism and the ecotourist. According to (Ashton and Ashton, 1993), the term ecotourists was first mentioned in the literature by (Miller, 1978) and subsequently found its way in to the sustainable development movement. But the most prominent and most quoted definition of ecotourism came from (Ceballos-Lascurain, H. 1987), who stated that "we may define ecological tourism or ecotourism as that tourism that involves traveling to relatively undisturbed or uncontaminated natural areas with the

specific object of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural aspects (both past and present) found in these areas".

Another option for defining ecotourism has been to posit a concise definition for the purpose of a particular study, such as the Ecotourism Society's definition that stipulates "responsible travel to natural areas which conserves the environment and improves the welfare of local people". Yet another alternative has been to describe ecotourism and nature tourism as part of a continuum of tourism experiences, such as (Ashton, R. and Ashton, P. 1993) spectrum of pure ecotourism, speciality nature tourism, and mass nature-based tourism.

A variety of techniques are available to identify ecotourists, many studies consider tourists entering a particular site or participating in certain tours to be ecotourists, while other studies use both site and activity criteria (e.g. Wall, G.1993). Only a few studies use motivational information to identify ecotourists. For example, (Ballantine and Eagles, 1994) define ecotourists as respondents who answer 'very important' or 'somewhat important' to 'learning about nature' as a motivation when planning a trip; and answer 'very important' or 'somewhat important' to 'wilderness/undisturbed areas' as an attraction when choosing a trip; and must spend at least one-third of their vacation on 'safari' or equivalent ecotourism activities.

Ecotourism is intended to support the protection of natural areas by generating economic benefits through employment and income opportunities for the local community and local organizations which manage the natural areas. Although the principles of ecotourism are intended to be environmentally friendly, ecotourism development in natural areas will inevitably lead to increased numbers of tourists and infrastructure building (e.g. eco-lodges, roads), which will change the natural environment to some degree.

According to various surveys, ecotourism has shown to be the fastest growing segment of the tourism industry, with an annual growth rate between 10% and 30%. Ecotourism currently comprises about 20% of the world travel market (TIES: Ecotourism Statistical Fact Sheet). Travelers in ecotourism markets seek a wide range of activities, both land and water based. Hiking/trekking, wildlife viewing, and visiting parks and protected areas are the most popular activities (TIES: North American Ecotourism Markets: Motivation, Preferences, and Destinations). A market demand assessment survey of North American tourists commissioned by the Canadian government in 1994 indicates that experienced ecotourists are usually between 35 - 54 years of age, are equally male and female, are more educated, spend more, have a higher-than-average income, and are more frequent travelers, than general tourists (TIES: North American Ecotourists: Market Profile and Trip Characteristics).

Ecotourism usually involves tourists from developed countries (e.g. North America, Europe, Australia) visiting ecotourist destinations in developing countries, although developed countries also have natural areas which draw ecotourists. Well established ecotourism destinations include Central and South America, Africa, Asia and the Pacific (TIES: Ecotourism Statistical Fact Sheet).

The global importance and potential impact of ecotourism has been recognized by the United Nations, which has designated the year 2002 as the International Year of Ecotourism. The International Year of Ecotourism is intended to encourage the cooperative efforts of governments, international and regional organizations, and non governmental organizations to promote development and protection of the environment, particularly in developing countries, through ecotourism. One of the major achievements was the World Ecotourism Summit held in Quebec, Canada in May 2002. The Quebec declaration is a testimony of the growing importance of ecotourism, not only as a sector with a great potential for economic development - especially in remote areas where few other possibilities exist - but also as a powerful tool for conservation of the natural environment if it is properly planned.

Efforts to better understand the implications of ecotourism, as well as to improve its planning, management and marketing techniques have been conducted in many parts of the world by international organizations, government agencies, ecotourism companies and practitioners, NGO's and researchers. According to (Cooray, P. 2006), there are eight core principals that govern the concept of an Eco Tourism product:

- Focus on giving visitors the opportunity to personally and directly "Experience Nature" (Natural area tours).
- Provide opportunities to experience nature in ways to lead to greater understanding, appreciation & employment (Interpretation)
- Represent best practice for environmentally sustainable Tourism (Environmental Sustainable practice).
- Contributes directly to the conservation of natural areas (Contribution to natural areas)
- Provide ongoing contribution to the local community (Benefiting local communities)
- Be sensitive to, interpret and involve the culture existing in the area (Respect for culture)
- Consistently meets consumer expectations (Customer satisfaction)
- Be marketed and promoted honestly and accurately so that realistic observations are toured (Responsible marketing).

4.1.3- The role of Protected Areas (PA) in nature tourism

According to the World Conservation Union (IUCN) a protected area is defined as "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means". Some historians claim that areas were specifically put aside in India for the protection of natural resources over two thousand yeas ago, or as sacred grounds in many cultures. While in other instances land was preserved for the rich and powerful as hunting grounds (Eagles *et al.*, 2002).

Furthermore the practice of "Hema", which is the Arabic translation for a protected area dates back in the Arabian Peninsula, to the pre-Islamic era. It probably goes as far back in history as 2000 years ago or maybe more. It developed as an acknowledgment of the need to conserve and wisely use scarce renewable resources. This practice was further enhanced in the Islamic law (Shari'ah), which acknowledged the direct and indirect benefits provided by wildlife, and grants rights to all living creatures (Bagader, A. *et al.* 1991).

Nature tourism in protected areas is the most straightforward way to raise public interest in conservational issues, through allowing the public to experience pristine natural areas and rare animals living in their natural habitats in the reserves. This would result in producing a new generation of articulate clients who can advocate for the conservation of protected areas and even the establishment of new ones.

Furthermore nature based tourism and more specifically ecotourism in protected areas can provide a meaningful incentive and economic justification for conservation, due to its dependence and maintenance of unspoiled natural areas with thriving communities of wild plants and animals.

However if this relationship between protected areas and nature based tourism is not managed very carefully taking in to consideration the ecological sensitivity of the area and the threshold of the carrying capacity, it will result in the degradation of the very resources upon which it depends.

4.2- FIELD SURVEY

Various natural and cultural attractions in the southern governorate were surveyed for their current role in nature based tourism, and their potential role for ecotourism in the study area. The survey provided a general overview on the state of the visited sites, assessing several components namely: ecological integrity or historical importance, accessibility, activities associate for each site, services provided and anthropogenic effects. The results of the field surveys were as follows:

4.2.1- Tree of Life and the Islamic settlement

Ecological integrity: The distinguishing feature for this site is the presence of an ancient solitary Acacia tree *Prosopis juliflora* (photo 4.1). Although there is no scientific data confirming the age of the tree, rough estimates range between 200 to 400 years old. The uniqueness of this one species of tree lies not only in its age, but rather to its unique location in the central depression (photo 4.2) on a sandy hill, the only visible tree in the area with no evident source of water available and scarce vegetation. Thus the tree evokes a sense of mystery, and appreciation to this unique species and the associate habitat of the desert. The tree is one of the natural attractions used in marketing Bahrain as a destination.



Photo 4.1: Acacia tree *Prosopis juliflora*



Photo 4.2: Tree of Life in central depression

Historical importance: Evidence of an unexcavated Islamic settlement, near the Tree of Life, were part of a long straight limestone wall is evidence, and many shards of Islamic Pottery are scattered thought the site. The site is though to date back to the 12th Century A.D.

Accessibility: The accessibility to the tree of life was easy on average, although the signs leading to the site were not continuous. Meaning that the signs were present at the beginning of the journey after passing Awali and when nearing the destination of the tree only (photo 4.3). On the other hand, clear signs leading to the tree on the long road running south east passing Haffira and the oil fields were absent, thus confusing the visitor or tourist if they were still on the right track. On the other hand the Islamic settlement was difficult to notice as there where no signs describing the area. Visitors/tourists would overlook the area. An aerial view of the site is depicted in photo 4.4.

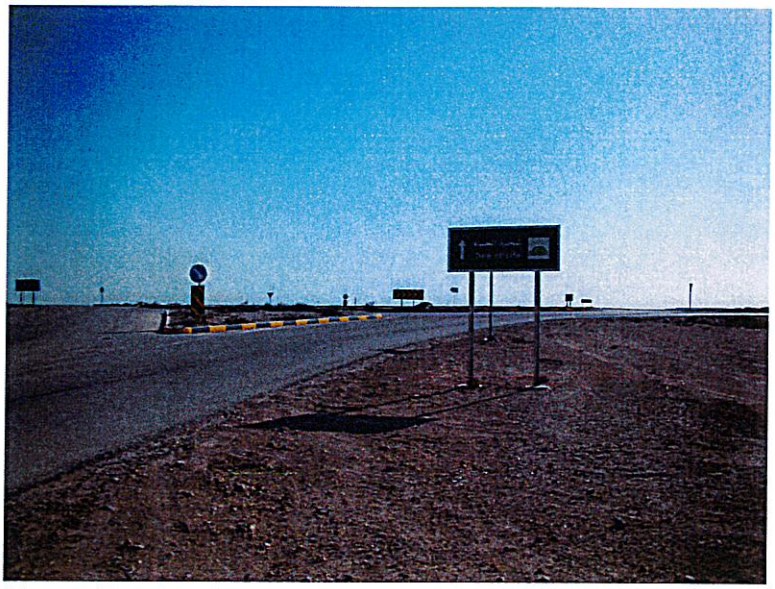


Photo 4.3: Leading signs to Tree of Life



Photo 4.4: Arial view of Tree of Life and Islamic settlement
Source: Google earth 2006

Activities: The activities associated within the area range form admiring the scenic beauty of the site, taking photographs, or a more active activities like off road driving, motorcycling and buggy rides (photo 4.5).



Photo 4.5: Buggy rids

Services: No tourist services at both sites.

Anthropogenic effects: During the several field surveys to the area, most of the activities observed were damaging the integrity of the environment namely, dumping of litter climbing on the tree and braking small parts of the smaller branches, buggy rides around the area affecting soil integrity, leading to soil erosion and damaging the remains of Islamic site as most people aren't aware of archeological existence of the site (photo 4.6). Additionally the graffiti is covering the whole of the trunk and branches, with knife carvings on the tree (photo4.7).



Photo 4.6: Climbing and damaging fragility of the smaller branches



Photo 4.7: Graffiti on Tree of Life

The cumulative effects of these activities have lead to the degradation of the scenic beauty of the site, giving a bad impression for nature based tourism in the country as this site is marketed as a tourist destination in the country.

While other activities observed were more sensitive to this unique environment taking care not to inflict damage to the tree, enjoying the area, taking memorable photographs and inquiring about the history of the tree.

4.2.2- Camping area at Sakhir

Ecological integrity: As described in chapter four, the desert environment features various physiographic features that appeal to the visitor/tourist (photo 4.8). The temporal and spatial extents of camping activities at Sakhir is depicted in Map 4.1, has been restricted in an attempt to minimize the camper's impacts on wildlife and maintain the integrity of the desert biodiversity. This is complemented with awareness programs by the Southern governorate in order to increase awareness and to raise consideration of campers towards the conservation and sustainable use of the components of biodiversity at the camping area.

These restrictions indirectly benefited the flora and fauna in the desert environment with populations of the sand gazelles, desert hares and several seabird breeding colonies like the white-cheeked tern's colony at the south western corner are maintained in their natural habitat with out the threats from human activities.

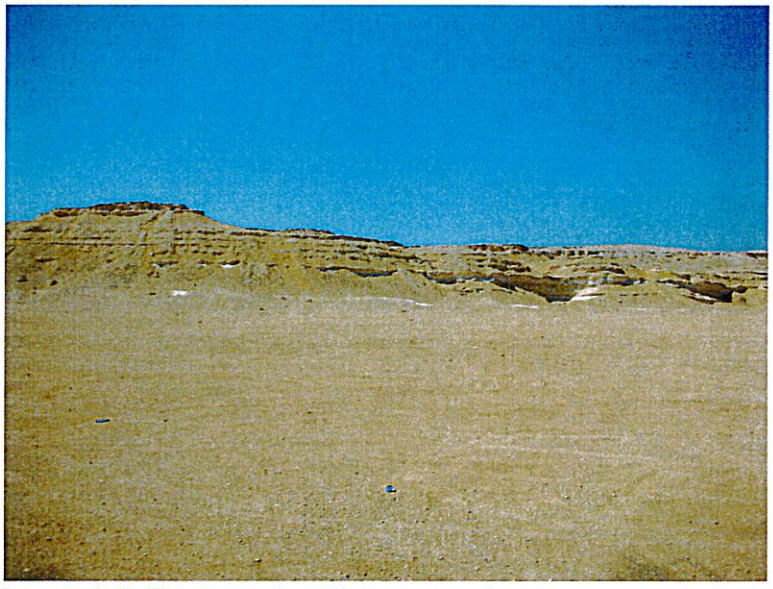
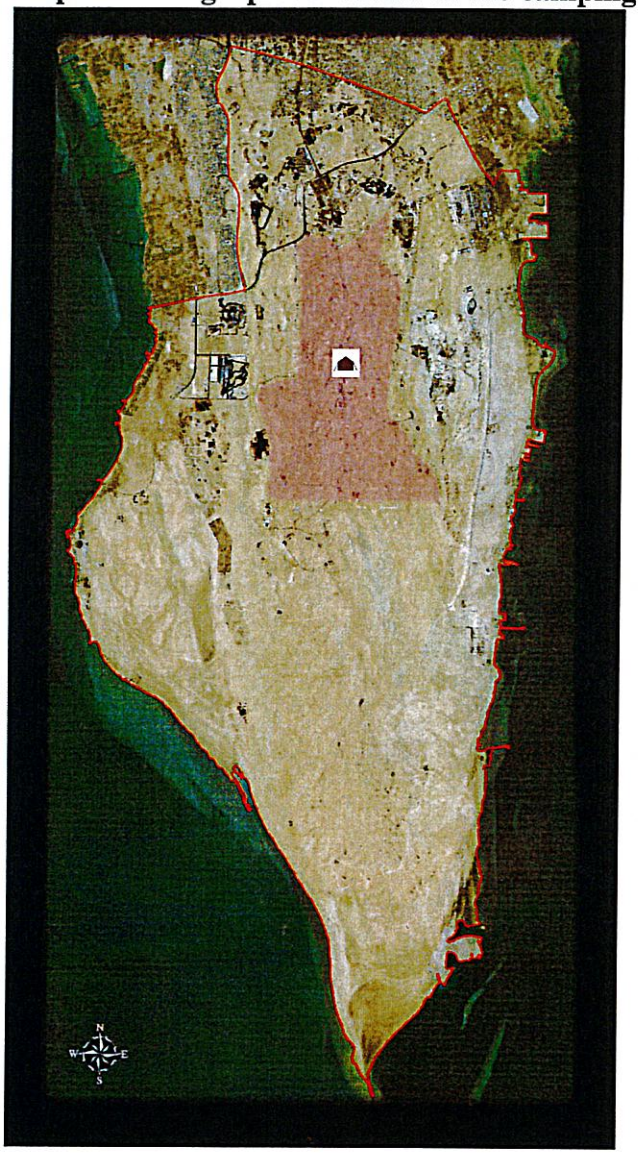


Photo 4.8: Topography of desert environment

Accessibility: The camping area is fairly accessible to the visitors and tourist, with clear signs on the main roads leading to the camp sites. Clear information signs were erected for clear view to the campers (photo 4.9). When entering the camping area, various roads are diverging and no clear signs showing the direction or the name of

the area. This was resolved to a degree by the campers themselves, hanging up signs to name the area or their located camping sites. One of the few areas with clear signs was near the campers service centre. Various other signs were present in regard to the different oil wells or for awareness purposes in regard to safety tips for campers or on protecting the environment.

Map 4.1: Geographical extent of the camping area



Source: Southern Governorate, Ministry of The Interior, 2006



Photo 4.9: Clear sign depicting end of camping season

Activities: The desert environment is a welcoming change form every day life, where many residents and tourists are attracted to the tranquility and culture of the desert, enjoying desert walks and camps. Camping in the desert at Sakhir is one of the most well known past times activities during the camping season (photo 4.10). The camping season started from 19th November 2005 and ended on 3rd of March 2006, part of the season coincided with the spring break. Various activities were observed that are associated with camping season, namely: camping, out door picnicking, sports activities, buggy rids and off-road driving. Other activities are more sensitive to the surrounding habitat, these include field trips to investigate the flora and fauna of the area, admire the natural landscape and horse riding (photo 4.11).

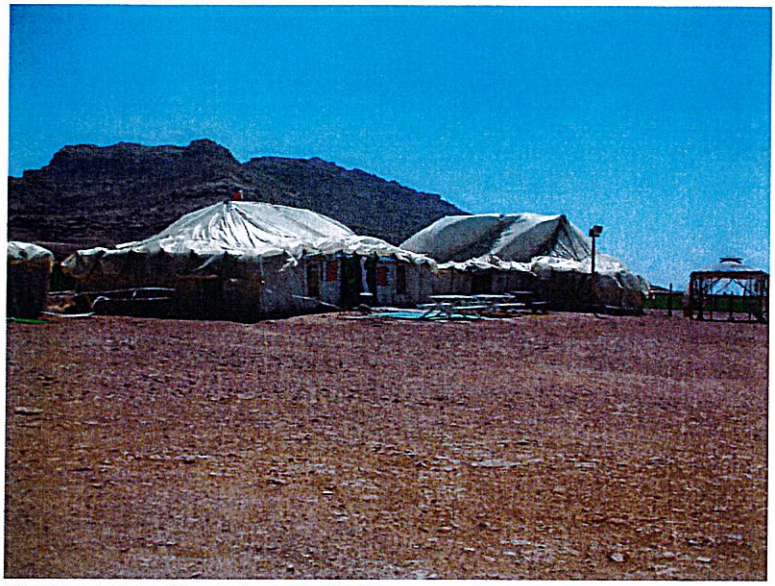


Photo 4.10: Camping activities

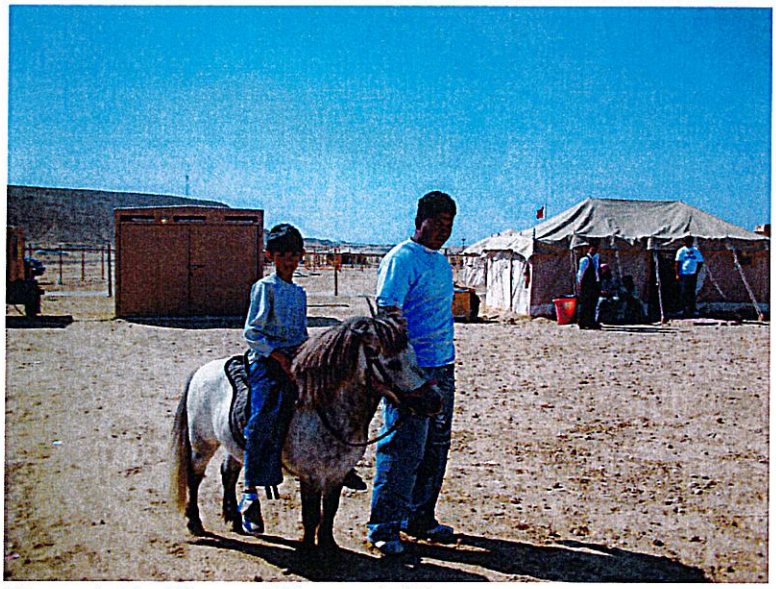


Photo 4.11: Horse riding activities

Services: The camper's service centre is situated in Um Jadir. The establishment covers an area of 5000m^2 and is connected to the water and electricity network. The centre is equipped with various facilities to serve the campers needs. These include a 24hour emergency hotline, first aid services, ambulances and fire trucks available 24 hours a day. Further more the civil defense forces, traffic police and public security are present at the centre and petrol the camping area on regular bases (photo 4.12).



Photo 4.12: Camper's Service Centre

Furthermore the National Guard provides very good services for the campers at their site (photo 4.13) with drinking water, toilets, medical services, play ground and mosque.



Photo 4.13: National Guard

Anthropogenic effects: Activities observed during the camping season and deemed damaging to the integrity of the desert habitat included the disturbance of large areas of the desert to set up camps and large areas of fencing surrounding the camps, natural vegetation was removed and excessive amounts of fire wood was burned.

Several observations showed that the amount of wood used at one time was observed to reach two meters high and three meters wide (photo 4.14) . Additionally burning tiers or burning wood inside the empty fiberglass water tanks was observed. Additionally the numerous motorcycles and buggy rides and off road driving increased the level of noise pollution in the area and affect soil integrity (Photo 4.15).



Photo 4.14: Large quantities of fire wood are used



Photo 4.15: Effects of off road driving and buggy races

Nearing the end of the camping season many abandoned tents and remains of discarded polls, tents, even furniture at the camping areas were observed. Another striking feature of the area is the vast numbers of oil, gas and water pipelines and wells; oil sumps, gas dehydration units and tank batteries hindering the scenic beauty of the landscape, and omitting strong hydrocarbon odors (Photo 4.16). Additionally there exists a danger in camping next to these facilities were accidents are more prone to happen; unfortunately it is common to see campers next to the pipelines (Photo 4.17).



Photo 4.16: Flare omitting hydrocarbons

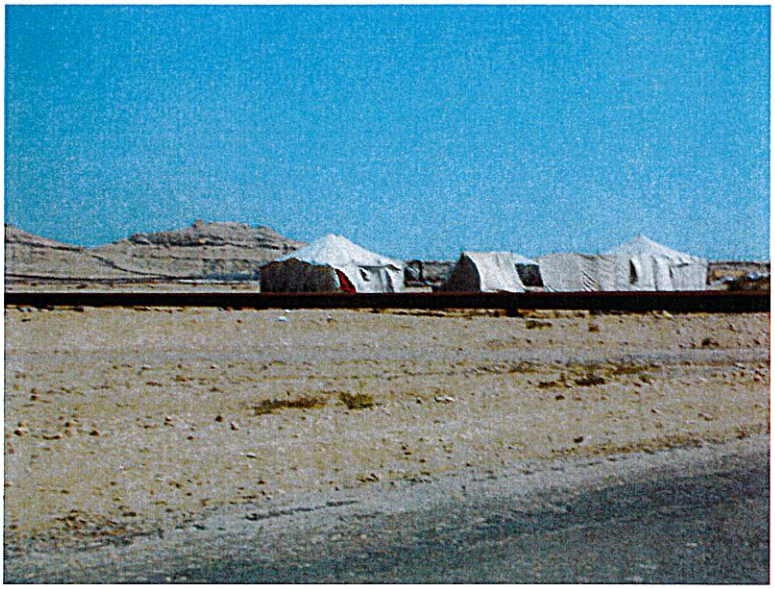


Photo 4.17: Camping near the pipelines

4.2.3- Al-Areen Wildlife Park and Reserve

Ecological integrity: Recognizing the dangers affecting Arabian wildlife, Bahrain took the first initiative in their conservation. Plans were developed backed by government funding to establish the first comprehensive conservation project in the Middle East serving the needs of conservation and education.

The project was Al-Areen Wildlife Park and Reserve which was established in 1976. The main priority at the time was the restoration of the larger mammals of Arabia which suffered most from habitat degradation and destruction, as well as from over hunting with special emphasis to the Arabian Oryx as they were nearing extinction.

Al Areen Wildlife Park and Reserve is made up of two components as the name implies a "park" and a "reserve". The wild life park harbors representatives of indigenous plants and animals in addition to exotic faunal species from Africa and southwest Asia. In the fenced reserve public access in prohibited, and a successful breeding in captivity and cross fostering program for the Sand gazelle *Gazella subgutturosa marica* (photo 4.18) and the Arabian Oryx *Oryx leucoryx* was establishment, to date 121 individuals of Sand gazelle and 102 individuals of Arabian oryx were present in the reserve in 2005 (Al Areen Wild life Park and Reserve).

Furthermore 53 species of floral species were identified in the reserve, with seven community types identified dominated by *Zygophyllum qatarense, Heliotropium crispum, Panicum turgidum, Leptadenia pyrotechnica, Sporobolus arabicus, Pennisetum divisum* and *Helianthemum kahiricum* (Abbas, J. *et al.* 1991).



Photo 4.18: Reem Gazelle (Sand gazelle)

Accessibility: Al Areen Wild Life Park and Reserve is located adjacent to the central western coastline of the main island in an open desert area. The site is easily assessable with clear signs and a good network of roads leading to the reserve.

Activities: The wildlife park is open to the public all week with a zoological and botanical park for tourists and visitors to view and learn about the various plant and animal species. Starting with a walk though the park; followed by a tour bus to view and take photographs of the various species. New enclosures are being built in the park, aesthetically pleasing for easy viewing (Photo 4.19).

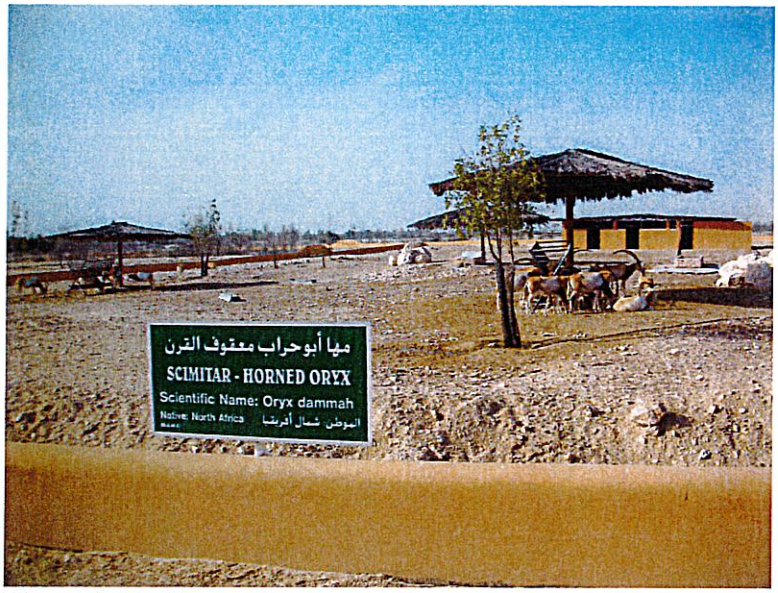


Photo 4.19: New enclosures in the park

Services: Various services are provided at the park to cater for the visitor and tourist. They include tour bus around the wildlife park (photo 4.20), a reception facility to provide the information leaflets with the schedule of the tour buses, an indoor cafeteria and outdoor areas for resting and viewing the animals, toilets, a souvenir shop (Photo 4.21) and a mosque. The park also offers a modern facility supporting the falconry sport with its associated heritage.

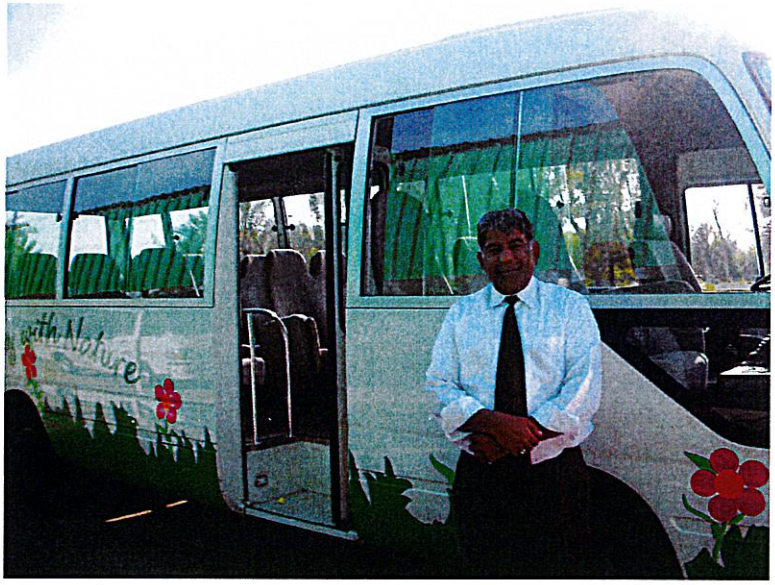

Photo 4.20: Tour guide at Al Areen



Photo 4.21: Souvenir shop at the park

Anthropogenic effects: With proper management on a daily bases, no noticeable anthropogenic effects are present in the park effecting the landscape and their associated flora and fauna.

4.2.4- Sheikh Salman bin Ahmed Al Fateh Fort and Hunainiya valley

Ecological and Historical importance: the Hunainiya valley is characterized by large areas of desert landscape with patches of rocky and muddy soil areas, acacia trees are present in the area and sparse vegetation (photo 4.22).



Photo 4.22: Acacia trees in the valley



Photo 4.23: Arial view depicting the strategic location of the fort

Source: Google earth 2006

Furthermore relevant to the Hunainiya valley is Sheikh Salman bin Ahmed Al Fateh Fort a well known historical attractions, built in 1812 on the remains of an old fort that was built in the seventeenth century. The fort had many purposes, it was initially a defense fort strategically built in an inaccessible location on top of the valley (photo 4.23). The fort was also used as a centre of government for many years, and was transformed in to a dwelling at the end of the twentieth century.

The architecture of the fort is an example of Islamic fort architecture known as the "Hashmite Arm System" (photo 4.24) characterized by building a tower on each two corners facing each other in the building. The fort was built using primary materials of desert stones, clay, lime stones and plaster. Renovations on the fort started in 1989 and continued until 1993, the fort was known as Riffa fort and the name has changed to Sheikh Salman bin Ahmed Al Fateh Fort.

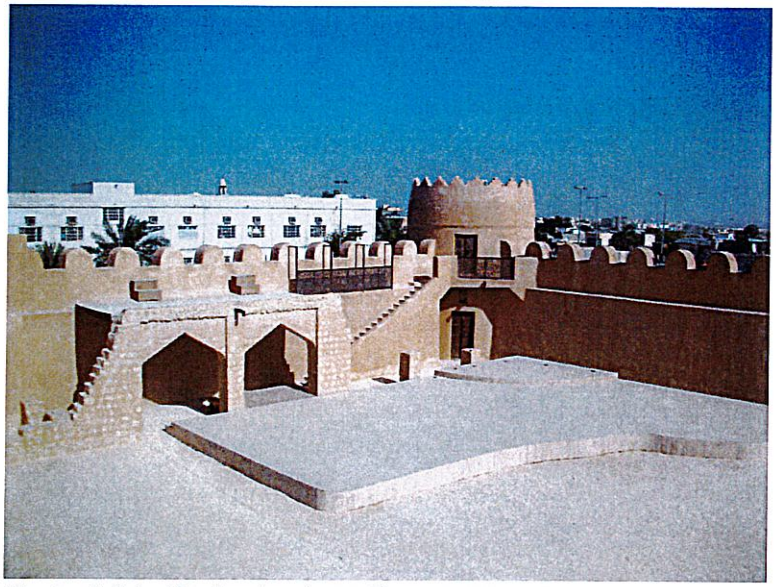


Photo 4.24: Hashmite Arm System

Accessibility: Clear signs are available on the main road leading to the fort from the Riffa roundabout and other leading roads (Photo 4.25). While access to the valley is available through various roads, for example either near Awali roundabout or following the signs leading to Sheik Salman bin Ahmed Al Fateh Fort.



Photo 4.25: Clear signs to the fort

Activities: Various activities are undertaken on the natural landscape of the valley, many families were picnicking in the area (photo 4.26), as it is more secluded than the open camping areas in the desert. Further more a small road running at the base of the valley is used as a jogging trail, used for buggy rides (photo 4.27). Other activities observed were visitors just admiring the surrounding scenery of the valley from the strategic location of the fort. Visitors to the fort admired the architecture of the period, touring the different quarters and envisioning the way of life and taking photographs (photo 4.28).



Photo 4.26: Picnicking in the valley

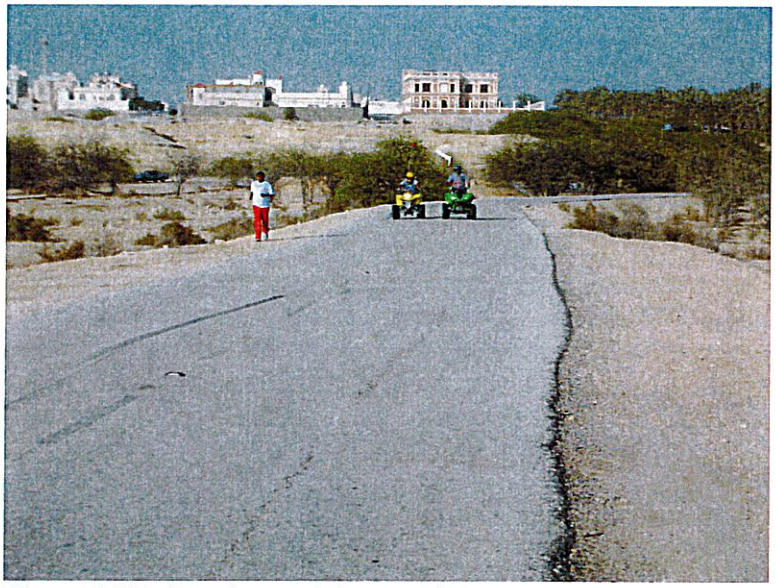


Photo 4.27: Jogging and buggy rides



Photo 4.28: Visitors to the Fort

Services: a clear sign next to the fort for the opening times, a public security at the gate, and an information office, though more emphasis should be placed on tour guide services in the fort as it is not available most of the time. As for the valley no services are present.

Anthropogenic effects: None noticed at the fort, while the valley has the scenic degradation of the oil pipelines extending to the valley, furthermore littering was noticed in the valley (Photo 4.29) and grazing by herds of goats (photo 4.30).

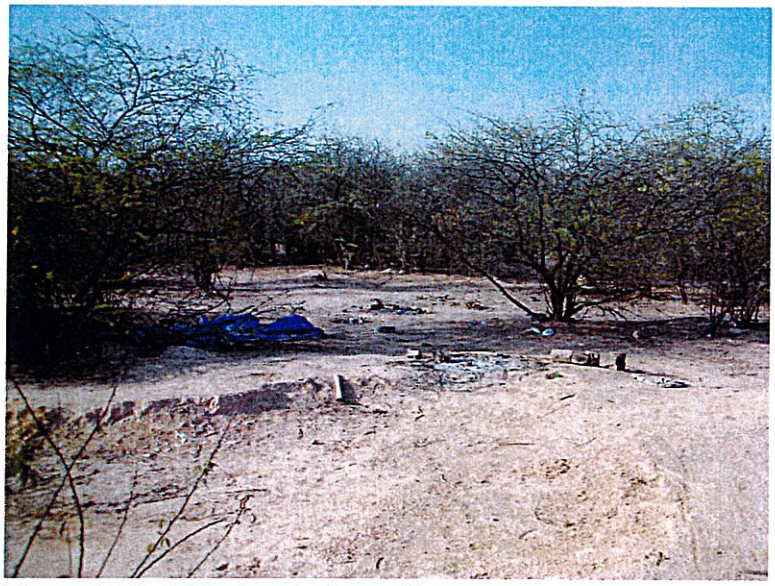


Photo 4.29: Littering in the valley

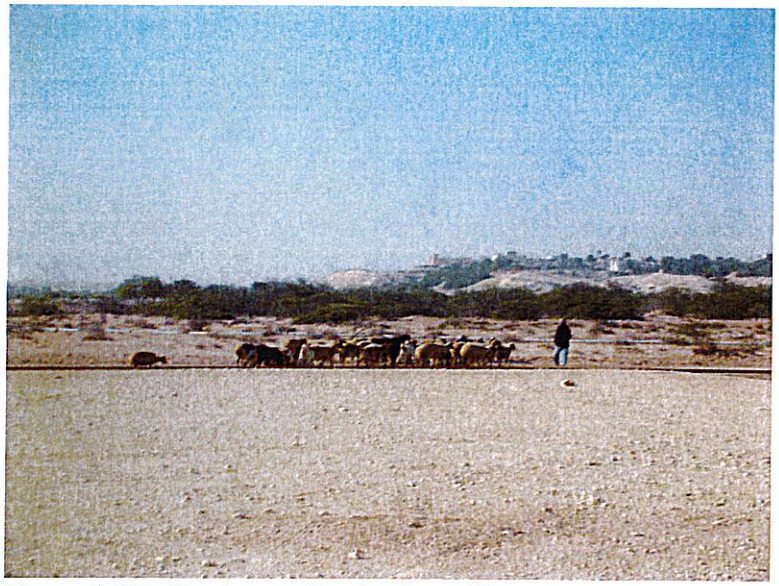


Photo 4.30: Goats grazing in the valley

4.2.5- Oil Well No.1 and Oil Museum

Historical importance: The two adjoining modern historical attractions of the Oil Well No. 1 and the Oil Museum are representatives of the modern history of Bahrain that started the oil revolution. The oil well no.1 (photo 4.31) is the first oil well in the gulf to struck oil in 1st June 1932. To commemorate the 60th anniversary of the discovery of oil in Bahrain, the oil museum was inaugurated on 2nd June 1992 (photo 4.32).

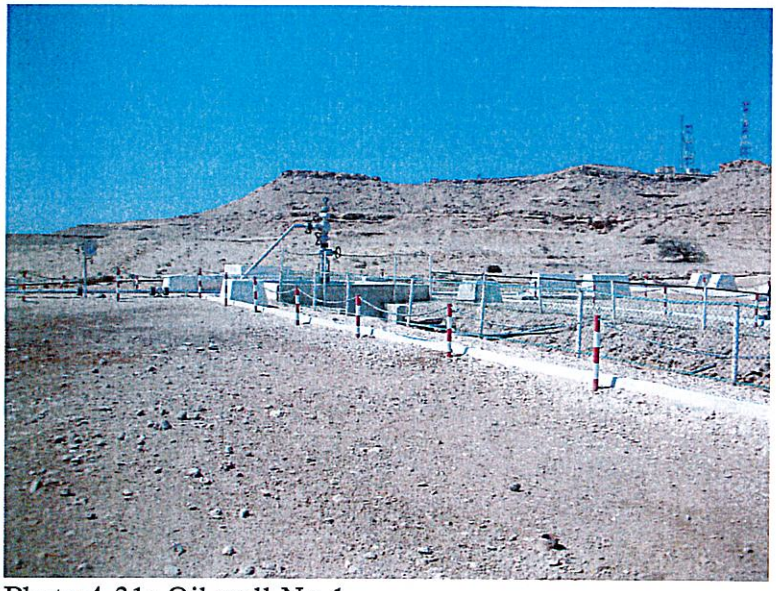


Photo 4.31: Oil well No.1



Photo 4.32: Oil Museum

Accessibility: The two attractions are situated to the east of Jabal Al Dukhan (photo 4.33), signs are present on the roads, though they are few compared to the distance required to reach the area and the divergence of the roads leading there.



Photo 4.33: Arial view of first oil well and oil museum east of Jabal Al Dukhan
Source: Google earth 2006

Activities: Visiting both locations to further acknowledge the modern history of the country, and admiring the surrounding environment of the desert.

Services: The museum houses fascinating exhibits of drilling equipment, documents, old photographs and a working model of an oil rig, well organized with clear information on each (photo 4.34), parking area, toilets, although there aren't any resting areas for the visitors.

Anthropogenic effects: Non noticed



Photo 4.34: Exhibits inside the oil museum

4.2.6- Burial mounds at Um Jadir and parts of Riffa

Historical importance: The burial mounds located in Um Jadir and parts of Riffa are from two distinct periods; namely the early period mounds and the late period mounds. The early period mounds dating back to the period between 3000-2500 BC, while the late period mounds date back to the period from 2000 to 1500 BC.

Accessibility: It is difficult to accesses the burial mounds in Riffa as some are located between residential houses, while others are located inside the Riffa cemetery. While the burial mounds at Um Jadir are located in the desert areas east of Al Areen Wildlife Park and Reserve, on the currently developing project of Al Areen Desert Spa and

Resort, and next to Bahrain International racing circuit; all of which are difficult to locate with out any leading signs.

Activities: Few visit these sites, because other areas in the country like the Sar burial mounds and the royal mounds of Aali are more known to the visitors and tourists.

Services: None

Anthropogenic effects: Urban encroachment on archeological burial mounds in Riffa (photo 4.35), while the development of Al Areen desert spa and resort will destroy large areas of Um Jadir burial mounds (photo 4.36).



Photo 4.35: Urban encroachment on the burial mounds
Source: Google earth 2006



Photo 4.36: Arial view of Um Jadir Burial mounds
Source: Google earth 2006

4.2.7- Coastal areas

Ecological integrity: The coastal mudflats on the east coast of the Southern governorate (photo 4.37) are a rich habitat for many aquatic marine animals that feed on the rich biomass content of the soil. Furthermore this rich habitat attracts various species of waders to the area feeding on the rich invertebrate fauna. This is especially evident in the autumn and summer migration of these birds. While the coastal strips to the south south-west are mainly classic sandy beaches.



Photo 4.37: Coastal strip along east cost

Accessibility: Various coastal strips are accessible to the public in the Southern Governorate, with a good network of roads. On the east side they include coastal strips of the villages of Ad Dur, Jaw and Askar. Further south accesses to the coastlines are prohibited until Hidd Al Jamal were accesses is allowed. Continuing to west of the Island access is prohibited until Ras Al Jazair, were several costal strips are used namely: small coastal strip used by the scouts, Al Jazair beach (photo 4.38). After wards it is private land until Zallaq village coastline which is accessible to the public.



Photo 4.38: Al Jazair beach on the west coast

Activities: The leisure activities associated on the east coasts are mainly picnicking on the beach, enjoying the scenery and the tranquillity of the area, as visitors to the area are not numerous (photo 4.39), this is in contrast to the west coast, especially at Al Jazair beach were numerous visitors are enjoying various leisure activates, such as swimming, jet skis, sailing, picnicking, football, buggy rids and children playing in the play grounds (photo 4.40 and photo 4.41).

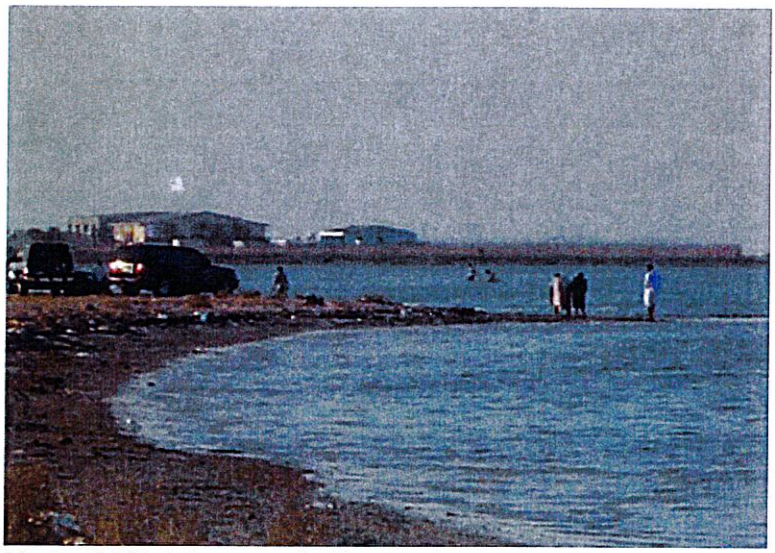


Photo 4.39: leisure activities on the east coast



Photo 4.40: Swimming at Al Jazair beach

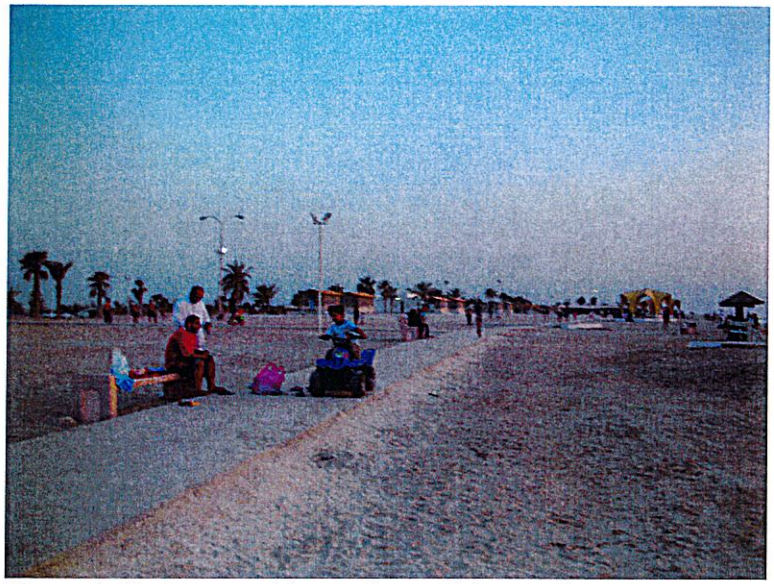


Photo 4.41: Buggy rids on the walking trails

Services: The east cost has little services, mainly a small garden, playground and a south youth centre on the cost of Jaw village (photo 4.42), though it is used mainly by residents of the area. While the accessible part of Al Jazair beach to the public contains traditional built chalets (photo 4.43), playgrounds, paved trails, and a mini-market.



Photo 4.42: Small garden at the Jaw coastline



Photo 4.43: Traditional chalets

Anthropogenic effects: Littering on the coastal areas (photo 4.44), not only hinders the aesthetic beauty, but also endangers the marine fauna of the area. Other effects include buggy rides on the coastal sands, oil leakage from boats and jet skies.



Photo 4.44: Littering the coasts

4.2.8- Hawar Islands

Various offshore islands are accessible to the public, but are mostly used by local fisher men namely; Qassar Muhana, Hidd Al Hul, Halat Noon, Qassar Noon and Al Mutarid Island, Mashtan Island, Um Jaleed. The later two are some times visited by families for a day trip or even to camp a night. The most well known offshore island to the visitor and tourist is the Hawar Island.

Ecological integrity and Historical importance: Hawar archipelago is featured by the highest level of ecosystem integrity with extensive desert, mudflats and sea grass beds serving as valuable feeding and breeding grounds for a wide range of terrestrial and marine species. The most important of which are globally important species of dugong *Dugong Dugong* , the second largest assemblages in the world after Australia.

The Hawar Islands and the surrounding territorial waters were declared as a protected area by Prime Minister Order (16) 1996, in accordance to Decree (2) 1995 with respect to the Protection of Wildlife. Designated as a RAMSAR site in 1997, and considered the most Important Bird Area anywhere in the region, due to the breeding colonies of Socotra cormorant *Phalacrocorax nigrogularis* being the largest in the world (photo 4.45); and the western reef heron *Egretta gularis* as the most numerous in the Middle East. Furthermore the islands are important nesting areas for the osprey *Pandion haliaetus* and the sooty falcon *Falco concolor* (BNR 2006).

Furthermore the main Island of Hawar harbours several remnants of old houses of the Al Dawasir family, old majlises, cemetery, mosque, two built pools that collected and stored rain water and several unknown archaeological sits and residence (photo 4.46).



Photo 4.45: Socotra cormorant flying over the Hawar Island



Photo 4.46: Remnant of an old majlis and Al Dawasir old residents

Accessibility: Easy accesses to the largest island Hawar from Al Dur jetty located on the south east coast of the main island of Bahrain (photo 4.47). Public access to the majority of Hawar Islands is restricted and continuously monitored by the Coast Guards. The areas surrounding the Hawar resort and the chalets are accessible.

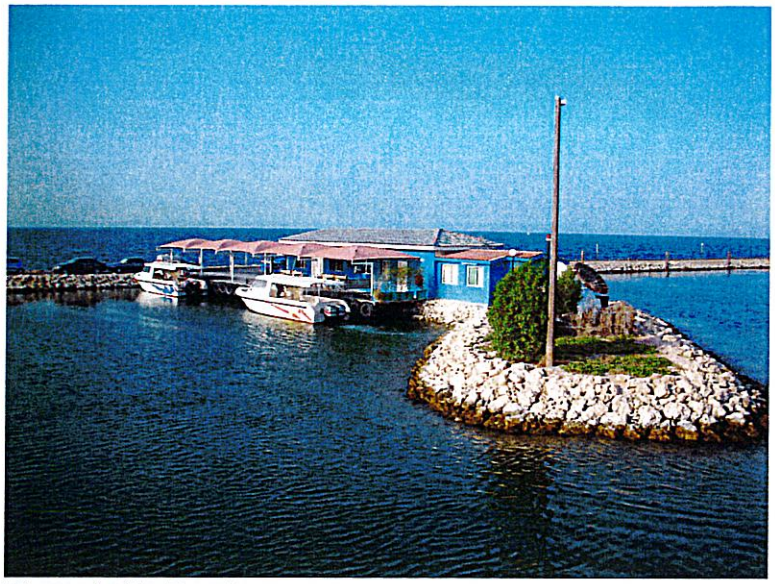


Photo 4.47: Dur Jetty

Activities: Scuba diving, snorkeling, swimming, canoeing, sunbathing, recreational fishing sailing jet-skiing and cycling and buggy rids are some of the activities associated with the island (photo 4.48 and Photo 4.49), especially around the resort and chalets. The worm water and climate also adds to the appeal of the site. Other activities include a tour bus to view the archeology on the Island, organized by the hotel. In order to view the special diversity of the marine flora and fauna on the various islands of the Hawar archipelago, special tour operators such as Al Reem Environment Consultation and ecotourism provide this educational service (Photo 4.50).



Photo 4.48: Canoeing



Photo 4.49: Bicycling around the Hawar resort

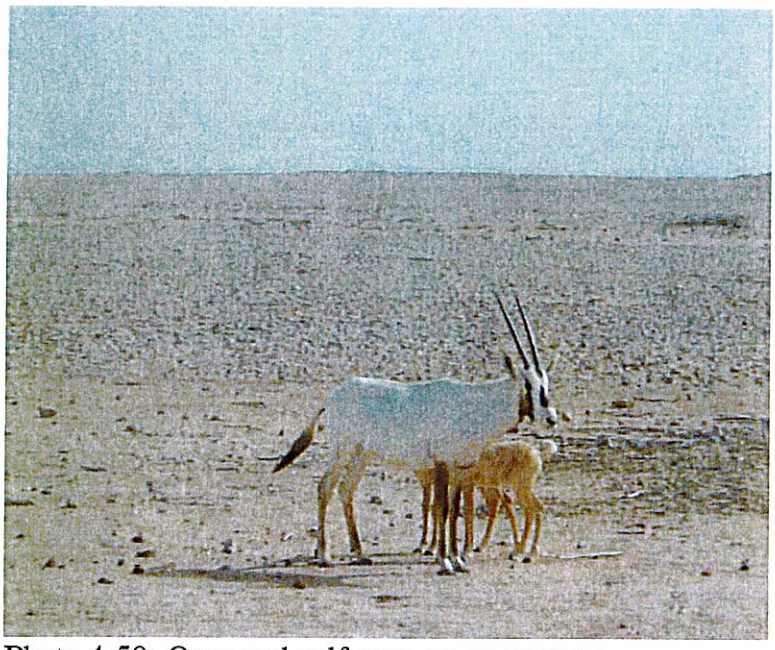


Photo 4.50: Oryx and calf seen on an ecotour

Services: A three star Hawar Resort Hotel offer the visitor or tourist all the modern services of a resort hotel; bedrooms, restaurants, recreational game rooms, swimming pool and water slides. In addition to organizing tour bus around the Island, furthermore the facilities of the hotel can be used by visitors and tourists using the chalets (photo 4.51).



Photo 4.51: Arial view of Hawar resort and chalets
Source: Google earth 2006

Anthropogenic effects: The sewage outfall of the resort is affecting the marine environment, additionally recreational activist such as speed boasts and jet skies can harm or kill the dugong in the area. One individual of dugong was seen washed near the shore of the hotel with clear markings of cuts on its back, most probably form propeller blades. Furthermore the oil leakages from the boats and jet skies are harming the marine environment. Additionally, the introduction of alien species like the geese and house pigeons in a protected area would affect the native species found on the Hawar Islands (photo 4.52).



Photo 4.52: Introduced species to the protected Area

4.3- PROPOSED ECOTOURISM MODEL IN THE STUDY AREA

The proposed location is Mumtalah, a long stretch of sheltered sandy beach backed by low sand dunes and an adjacent small area of inter-tidal mudflats and sand flats on the southwest coast of the main Island of Bahrain at 25°54'N, 50°31'E as depicted in Map 4.2 and Map 4.3.

Map 4.2 Location of proposed site



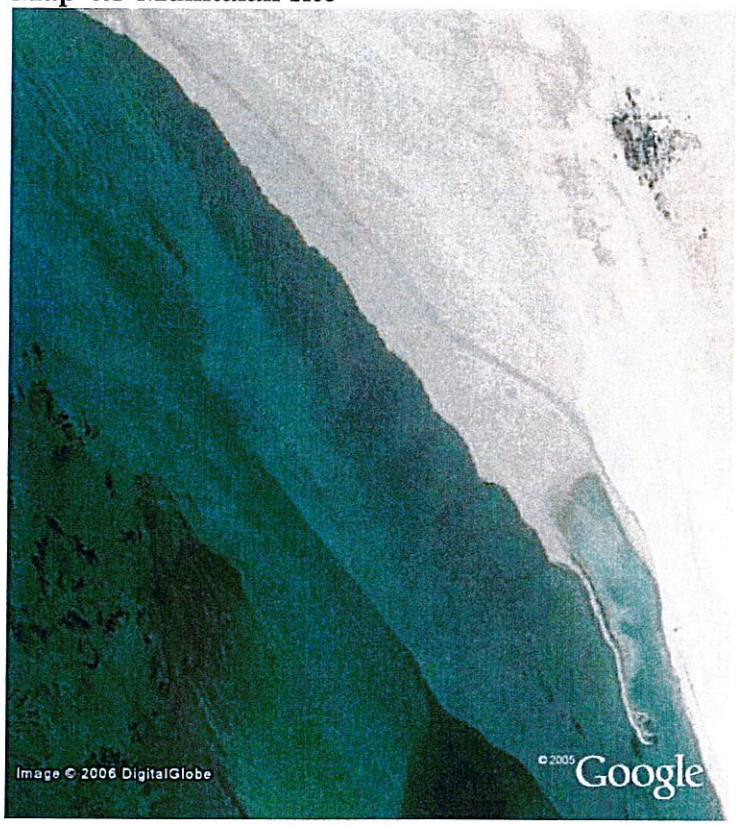
Source: Google earth 2006

The site contains various attributes to develop a successful ecotourist destination in the Southern region namely:

- The site is very much secluded on the south west coast of the Island away from the urban centers or industrial developments. The area has no sources of pollution or urban encroachment. The nearest development to the north of the site is Al Jazair beach at a far north, thus the seclusion of the site adds to its appeal.

• In addition to the aesthetic beauty of the area, it provides a very good representation of the various types of ecosystems, from the marine habitat, to intertidal mudflats, sand flats, and the associated desert ecosystem further inland, that will attract the interpret ecotourists.

Map 4.3 Mumtalah site



Source: Google earth 2006

• Key species in the area would promote the site as an ecotourist destination and serve in their conservation. The site has been identified as an Important Bird Area by BirdLife International (Mohammed, S. 1994a), due to its importance in supporting the largest breeding colony of White-cheeked Terns *Sterna repressa* in Bahrain (photo 5.1). Furthermore other breeding birds in this area include the Kentish Plover *Charadrius alexandrinus* and the Hoopoe Lark *Alaemon alaudipes*. Additionally between 50 to 100 Greater Flamingos *Phoenicopterus ruber* normally winter along the Mumtalah coast (Mohamed, S. 1991).



Photo 5.1: White-cheeked Terns

• The area also supports a native population of Arabian Rheem Gazelles *Gazella subgutturosa marica* from 50 to 70 individuals, another key species of interest in the region (Mohammed, S. 1995).

• The sand dunes behind the beach support scattered halophytic plants such as *Halopeplis sp., Hammada sp.* and *Suaeda sp,* a good spot to admire the desert habitat, while at a safe distance to observe the breeding bird populations in the area.

• The warm coastal waters are shallow, with a maximum depth of 5 m and a relatively high salinity of over 50 ppm. Snorkeling in the area provides close encounters and appreciation of the marine life. Brown algae such as *Sargassum sp.* and *Hormophysa sp* occur in the inshore waters in addition to the commercially important Rabbit Fish *Siganus canaliculatus*.

Access is restricted and the monitoring of the gazelle and the breeding bird populations was conducted by Al Areen Wildlife Park and Reserve. With proper base line data collection, the management can assess the viability of ecotourism in the area.

The following are some recommendations if the site would be developed as an ecotourism destination:

1. An up to date detailed survey is required for gathering base line data for the area in order to establish long-term monitoring of key species, and assessing their population trends. The survey must also evaluation the future potential and impacts associated with nature based tourism in the area according to the base line data.

2. If approved, the next step would be the development of a comprehensive conservation and ecotourism management plan for the area.

3. Determine the carrying capacity of the area, and adopt an appropriate zoning technique for the various nature based tourism activities.

4. Establishment of eco-lodges, at a safe distance from the sensitive breeding areas.

5. With the proper and effective marketing campaigns, the right segment of the tourism industry would be attracted to the area with the least detrimental effect.

CHAPTER 5: DATA ANALYSIS & RESULTS

Questionnaires were distributed at the eight chosen sites namely: the desert camping areas, Al Areen Park, Tree of Life, Hunainiya valley, Sheikh Salman bin Ahmed Al Fateh Fort (Riffa Fort), Oil museum, Al Jazair Beach, and the Hawar Islands.

Each site was visited five times in the weekdays, and an additional five visits in the weekends, to produce an equal distribution time frame for each site. Questionnaires not filled out properly, either by being incomplete or containing double answers were excluded for the survey, this resulted in the validity of 838 questionnaires.

Statistical analyses tests were performed on the questionnaires using statistical software package SPSS. Results were presented as the mean, standard deviation (SD), frequencies (N) and percentages (%). The relations between demographic variables tested used chi-sq test, while Anova test (F-Test) were used to test the significant difference between socio economic variables (age, education level, nationality) towards their evaluation of the tour, also t-test used for testing the significant differences between (gender and marital status) toward the evaluation of the tour. In all of the statistical tests, the null hypothesis was rejected at the 5% level (p less than or equal to 0.05).

This resulted in the highest distribution percentage for the desert camping areas at 41.5%, followed by Al Areen Park at 17.8%, Tree of Life at 9.7%, Hawar Islands at 8.1%, while Hunainiya valley and Al Jazair beach both had equal percentages of 7.2%, Riffa fort at 4.8% and the least percentage to Oil Museum and Oil Well No.1 at 3.6% as depicted in (Table 5.1).

5. 1- DEMOGRAPHIC CHARACTERISTICS

According to Table 5.1, the majority of the sample members were males at 69.3% as opposed to females which represent only 30.7%. This was due to the reluctance of females to participate in the questionnaire, furthermore when handing the questionnaire to a female member by random; the questionnaire was later given by the female member to the head of the household.

In regard to the age, the majorities of the sample members were between the ages of eighteen and thirty five which represent 56.1% of sample members. This was followed by the age group between thirty six and fifty years of age which represent 29.2% of sample members. This is in contrast to the age group above fifty or below eighteen year of age which represent the smallest percentages of the sample members at 4.7% and 10% respectively. These percentages represent an important indicator; were the youth and middle aged are the most interested in natural attractions represented by more than half of the sample members.

The highest percentages in regard to education levels were high school and university holders at 35.2% and 37.8% respectively. This was followed by 18.4% with less that high school certificate, and only 8.6% of sample members held post graduate degrees. Further more in regard to the social status of the sample members, 66.2% were married, while only 33.8% were single.

In regard to the distribution of the sample members by nationality, the highest percentage was for Bahraini nationals represented by 71.2% of sample members indicating a high ratio for domestic tourism in the sample area; furthermore the survey was conducted outside the summer holidays, with little international visitor arrivals. Members form the GCC countries accounted for only 7.2% of the sample members, while other Arab countries represented 4.8% of the sample. Other nationalities represented in the sample include nationalities form the Far East region at 6.7%, American and Europe region at 5.4%, and Africa at 5.5%.

In regard to the occupation of the sample members the highest percent 38.9% represent the employee segment; other professions mentioned in the open question include professional, teacher, and business men at 8.6%, 6.4% and 4.1%, accordingly. Employees at clerical, technician, mechanics level are under the category others which represent 3.5% of sample members, making the total working members to account for 62.5% of sample.

Students represented 14.1% of the sample, while house wives represented 9.2% of the sample size, making the non working sample members to account for 23.3%. Only 15.3% reclined from answering.

The monthly income of the sample size are represented by 30.5% receiving a monthly income of less than 400BHD, and 28% receiving a monthly income between 400-800BHD. The percentage drops at higher income levels with 6.2% for incomes between 800-1200BHD and 8.1% for incomes greater than 1200BHD, while 26.8% reclined form answering.

Table 5.1 Distribution of Sample members according to their social and economical characteristics

Characteristic	Sub group	Percent
Gender	Male	69.3
	Female	30.7
Age (years)	< 18	10.0
	18 - 35	56.1
	36 - 50	29.2
	> 50	4.7
Education level	< High school	18.4
	High school	35.2
	University	37.8
	High study	8.6
Marital status	Single	33.8
	Married	66.2
Nationality	Bahrain	71.2
	GCC	7.2
	Other Arabs	4.8
	Africa	4.8
	Far East	6.7
	Americas & Europe	5.4
Job	Student	14.1
	House wife	9.2
	Employee	38.9
	Business	4.1
	Teacher	6.4
	Others	3.5
	Professional	8.6
	No answer	15.3
Monthly Income (BHD)	< 400	30.5
	400 - 800	28.0
	800 - 1200	6.3
	> 1200	8.1
	No answer	26.8

Summing the demographic characteristics, the majority were males, and more than half of the sample members ranged between the age group of eighteen to thirty five. Furthermore educational levels ranged between high school and university degrees in more than half of the sample. Bahraini citizens were the majority, and the working members represent half of the sample size.

5.2- TRIP CHARACTERISTICS

The distribution of the sample members according to the trip characteristics represented by the season of visit, the timing and the accompanying members is represented in Table 5.2. More than half of the sample members at 53.7% had the preference for the camping season in order to visit the natural attractions in the study area, while 23.9% had no season preference, and only 9.7% preferred to visit natural and cultural attractions outside the camping season.

Furthermore a high percentage of 76.6% of the sample members preferred the holidays and weekends to plan their trip, while 17.1% preferred the weekdays, and 6.3% did not have any preferences regarding the time of visit.

The majority of the sample members at 80.1% were families visiting natural attractions, while only 9.5% of the sample members were part of an organized tour. Additionally 5.8% of the sample members preferred to visit the sites on an individual basis and 4.5% did not indicate a preference.

Table 5.2 Distribution of sample members according to information about trip

Information	Sub group	Percent
Season of visit	Camping season	53.7
	Other seasons	9.7
	All year	23.9
	No answer	12.8
Best time to go	Weekdays	17.1
	Weekends & holidays	76.6
	No answer	6.3
Type of trip	Individual	5.8
	Family / Friends	80.1
	Organized tour	9.5
	No answer	4.5

Thus the main trip characteristic include that the majority of the sample members were on family oriented trips to natural areas, were the holidays and weekends represent the main time preference, with more than half of the sample members preferring the camping season for nature based tourism.

5.3- RELATION BETWEEN DEMOGRAPHICS AND SITE OF VISIT

The distribution of the sample members according to the various natural and cultural attractions visited is represented in Table 5.3. The majority of the sample members represented by 75.3% visited the camping area; this is in correlation with the camping season at the time of the questionnaire distribution. Another site in relation to the desert habitat was the tree of life, in which 60% of the sample members visited the site, while 58.9% of the sample members visited Al Areen Wildlife Park.

In relation to the cultural sites 50.7% of the sample members visited Riffa Fort, and only 22% and 25.4% visited the ancient sites and the oil museum. Visitors to the coastal areas and the Hawar Islands represented 36.6% and 17.2% accordingly, while Hunainiya valley accounted for 37.5%.

Table 5.3 Distribution of the sample members according to sites visited

Sites	Percent
Camping areas	75.3
Tree of Life	60.0
Al-Areen Park	58.9
Coastal areas	36.6
Hunainiya Valley	37.5
Riffa Fort	50.7
Ancient sites	22.0
Oil Museum	25.4
Hawar Islands	17.2

In analyzing the relationships between the demographic variables (gender, age, education level, marital status, nationality) and the site of visit using Chi-sq test the following relationships were noticed:

Table 5.4 shows that there is highly significant relation between gender and visiting the Tree of Life, Al Areen Park and the coastal areas were ($p<0.01$), were the male preference was for tree of life and coastal areas at 63.3% and 39.9% accordingly, while the females preference was for Al Areen Park at 68.1%.

There was also a significant relation between gender and visiting the camping areas and the Hunainiya valley were ($p<0.05$), the males represented 77.6% and 39.8%, while the females represented 70% and 32.3% accordingly for the camping area and Hunainiya valley. Thus there is a strong correlation between male visitors and the camping areas, Tree of Life, Coastal areas and Huniniya valley. On the other hand female visitors were attracted to Al Areen Park. There were no significant relations between gender and Riffa Fort, ancient sites, Oil museum and the hawar Islands.

Table 5.4 Distribution of the sample members according to sites visited by gender

Sites	Percentage		Chi-sq
	Male	Female	
Camping areas	77.6	70.0	5.51*
Tree of Life	63.3	52.5	8.68**
Al-Areen Park	54.9	68.1	12.81**
Coastal areas	39.9	29.2	8.86**
Hunainiya Valley	39.8	32.3	4.23*
Riffa Fort	52.0	47.9	1.21
Ancient sites	20.7	24.9	1.88
Oil Museum	26.7	22.6	1.59
Hawar Islands	15.8	20.2	2.42

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Furthermore, there is a strong relation between age and visiting coastal areas and ancient sites as depicted in (Table 5.5) were($p<0.01$), 41.7% of those in the age range of 18 to 35 years visiting coastal areas, while 33.3% of those who are over 50 visited ancient sites. Form these figures it is assumed that the mature older generation prefers historical and archeological attractions, while the more active younger generation prefers the coastal areas. Additionally there is also a significant relation between age and visiting both the camping areas and the Oil museum were ($P<0.05$), 79.6% of the campers were in the age group between 18-35, and 41% visiting the Oil museum were above fifty years old. This indicates that the older generation prefers the oil museum, while the more active younger generation prefers the camping areas. There were no significant relations between age and visiting Tree of Life, Al Areen Park, Hunainiya valley, Riffa Fort and the Hawar Islands.

Table 5.5 Distribution of the sample members according to sites visited by age

Sites	Age as percent of total				Chi-sq
	< 18	18-35	36-50	>50	
Camping areas	71.4	79.6	68.6	74.4	11.27*
Tree of Life	61.9	60.0	59.2	61.5	0.23
Al-Areen Park	63.1	56.6	61.6	61.5	2.51
Coastal areas	39.3	41.7	29.0	17.9	17.5**
Hunainiya Valley	39.3	37.0	37.6	38.5	0.17
Riffa Fort	45.2	48.5	56.3	53.8	5.16
Ancient sites	21.4	18.1	27.8	33.3	11.87**
Oil Museum	22.6	22.6	29.4	41.0	9.43*
Hawar Islands	19.0	14.9	20.8	17.9	4.22

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Table 5.6 shows there is highly significant relation between the level of education and visiting the camping areas, Al Areen Park, coastal areas, and Hunainiya valley were ($p < 0.01$), 80.7% hold a high school certificate at the camping areas , 66.7% are post graduate holders at Al Areen Park, 46.8% with less than high school are attracted to the coastal areas, and 44.7% are attracted to Hunainiya valley.

There is also a significant relations between education level and visiting ancient sites ($p < 0.05$), were 34.7% of the sample members were holders of post graduate degrees. There were no significant relations between other sites of visit and education level.

Table 5.6 Distribution of the sample members according to sites visited by education level

Sites	Education as percent of total				Chi-sq
	< High School	High School	University	High Study	
Camping areas	72.7	80.7	75.4	58.3	16.28**
Tree of Life	55.8	61.0	59.3	68.1	3.24
Al-Areen Park	51.3	54.9	64.7	66.7	11.77**
Coastal areas	46.8	46.1	27.8	15.3	43.08**
Hunainiya Valley	35.7	44.7	33.4	29.2	11.18**
Riffa Fort	50.6	52.2	50.2	47.2	0.65
Ancient sites	18.8	20.3	22.1	34.7	8.17*
Oil Museum	24.0	22.0	26.5	37.5	7.68
Hawar Islands	12.3	16.9	19.2	19.4	3.75

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relationship between social status and the site of visit is depicted in Table 5.7. There is a highly significant relation between visiting camping areas and social status ($p<0.01$), 81.6% are single. Further more there is a significant relations between marital status and visiting Tree of Life and coastal areas ($p<0.05$), 65.7% single visitors to the Tree of Life and 41.7% single visitors to the costal areas. There were no significant relations between other sites of visit and social status.

Table 5.7 Distribution of the sample members according to sites visited by social status

Sites	Percentage		Chi-sq
	Single	Married	
Camping areas	81.6%	72.1%	9.19**
Tree of Life	65.7%	57.1%	5.78*
Al-Areen Park	60.1%	58.4%	0.22
Coastal areas	41.7%	34.1%	4.71*
Hunainiya Valley	40.3%	36.0%	1.44
Riffa Fort	53.0%	49.5%	0.89
Ancient sites	24.4%	20.7%	1.46
Oil Museum	26.9%	24.7%	0.46
Hawar Islands	15.9%	17.8%	0.49

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relationship between the sample members nationality and the site of visited is depicted in Table 5.8. There is highly significant relation between visiting the various sites, were ($p<0.01$) and the nationality, except at Al Areen Park were the relation ship is significant at ($p<0.05$).

There is a highly strong correlation between being a Bahraini citizen and visiting the camping areas at 87.6%, Hunainiya valley at 46.1%, and Riffa Fort at 54.9%. Furthermore there is also a highly significant relation between being citizens form Arab state excluding the GCC at 50% and visiting the coastal areas, while GCC citizens at 33.3% are more attracted to the Hawar Islands.

In regard to the Tree of Life and the ancient sites there is a highly significant relation between these sits and citizens from the Far Eastern countries at 75% and 33.9% respectively. While citizens form the Americas and Europe region are more attracted to the Oil museum at 53.3%.

There was a significant relation between members from the Far East region were ($p < 0.05$) and visiting Al Areen Park at 73.2%.

Table 5.8 Distribution of the sample members according to sites visited by nationality

Sites	Nationality as a percentage of total						Chi-sq
	Bahrain	GCC	Other Arab	North Africa	Far East	Americas & Europe	
Camping areas	87.6	31.7	70.0	42.5	50.0	35.6	191.20**
Tree of Life	65.7	21.7	37.5	27.5	75.0	66.7	76.85**
Al-Areen Park	59.3	60.0	37.5	60.0	73.2	53.3	12.97*
Coastal areas	43.9	21.7	50.0	10.0	8.9	6.7	70.54**
Hunainiya Valley	46.1	13.3	37.5	15.0	12.5	6.7	75.48**
Riffa Fort	54.9	33.3	42.5	40.0	50.0	35.6	18.58**
Ancient sites	21.9	20.0	10.0	7.5	33.9	33.3	16.43**
Oil Museum	25.8	8.3	10.0	22.5	30.4	53.3	33.70**
Hawar Islands	15.7	33.3	15.0	7.5	19.6	22.2	15.67**

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

In summing the relations between the demographic variables and the site of visit in Table 5.9, a clear variation occurs in the various natural and cultural sites in the Southern Governorate.

Table 5.9 Relation between demographics and site of visit

Site	%	Highly significant	Significant
Camping area	75.3	Bahraini, Single High school	Male Age 18-35
Tree of life	60.0	Male, Far East	Single
Al Areen Park	58.9	Female, Post graduate	Far East
Riffa Fort	50.7	Bahraini	---
Hunainiya valley	37.5	Bahraini, High school	Male
Coastal area	36.6	Age 18-35 Less than high school Arab countries (excluding GCC)	Male Single
Oil Museum	25.4	America and Europe	Age above 50
Ancient sites	22.0	Age above 50, Far East	Post graduate
Hawar Islands	17.2	GCC	---

- The camping area has attracted the majority of the sample size at 75.3%, were highly significant relations occur to being a Bahraini citizen, single and holding a high school certificate. Furthermore there was a significant relation between the site, male preference, and the age group from 18 to 35 years.

- Tree of Life has attracted 60% of the sample size; there was a highly significant relation to male gender, and citizens form the Far Eastern countries. Furthermore there was a significant relation between the site and being single, while there were no significant relations to age or educational level.

- Al Areen Park has attracted 58.9% of the sample size; there were highly significant relations to being female, and holding post graduates degrees. Additionally there are significant relations between being citizen's form the Far Eastern countries, while there were no significant relations to age or social status.

• Riffa Fort has attracted 50.7% of the sample size, with a highly significant relation to being a Bahraini citizen. There were no significant relations to gender, age, educational level and social status.

• Hunainiya valley has attracted 37.5% of the sample size, there were highly significant relations to Bahraini nationals and being holders of high school certificates. Furthermore there was a significant relation to male gender. There were no significant relations to age or social status.

• Coastal areas has attracted 36.6% of the sample size, highly significant relations occur between the site and being in the age group from 18 to 35, holding less than high school certificates and coming form the other Arab countries excluding the GCC. Furthermore there were significant relations male and single.

• Oil museum has attracted 25.4% of the sample size, there was a highly significant relation to citizens form the Americas and Europe regions and this site. Furthermore there was a significant relation to the age group above fifty years of age. There were no significant relations to gender, education level and social status.

• Ancient sites attracted 22% of the sample size, were highly significant relations occur to the age group above fifty years of age and being citizen's form the Far Eastern countries. Furthermore there was a significant relation between the site and post graduate holders. There were no significant relations to social status and gender.

• Hawar Islands attracted 17.2% of the sample size, there were highly significant relations between this site and to nationals form the GCC countries. There were no other significant relations to gender, age, education level and social status.

5.4- RELATION BETWEEN DEMOGRAPHICS AND MOTIVATION

Table 5.10 represents the motivational drive behind visiting the various natural and cultural areas in the Southern Governorate. The majority of the sample members at 70.8% were motivated by picnicking activities for visiting natural areas. Furthermore more than half of the sample members preferred viewing wildlife and camping as their main motives for visiting the natural areas represented by 56% and 51.7% of sample members. Additionally 30.9% preferred viewing a natural or cultural feature as their main motivation. Other motives to a lesser extend include the traditional cultures and values placed on natural areas at 22.7%, photography at 22.6%, various sporting activities at 19.6%, parties at 19.8%.

Preference for off road driving and motor biking are represented by 17.4% and 17.9% of the sample members, while horse riding represented 14.2% of sample member's preference, and fishing represented 11.7% preference. The least motivational drives include biking at 8.5% and research at 3.8%.

Table 5.10 Distribution of the sample members according to their motivation for visiting sites

Reasons	Percent
Horse riding	14.2
Motor biking	17.7
Camping	51.7
Picnicking	70.8
Fishing	11.7
Special natural or cultural feature	30.9
Wildlife	56.0
Biking	8.5
4 wheel drive	17.4
Sport activities	19.6
Parties	19.8
Research	3.8
Part of tradition	22.7
Photography	22.6

The relation between motivations and gender preference is depicted in Table 5.11, there is highly significant relation between motivational preferences of motor biking, fishing, off road driving, sport activities, and parties; with the male gender ($p<0.01$) with higher choice percentages by males as opposed to females, represented by 20.3%, 14.6%, 20.7%, 23.2% and 22.4%.

There were also significant relations between motivation of visiting camping areas and horse riding and male gender ($p<0.05$), with 54.4% and 15.8% preference. Furthermore there were no significant relations between other reasons of visit and gender.

Table 5.11 Distribution of the sample members according to motivation for visiting the sites by gender

Reasons	Percent		Chi-sq
	Male	Female	
Horse riding	15.8	10.5	4.15*
Motor biking	20.3	11.7	9.14**
Camping	54.4	45.5	5.61*
Picnicking	68.8	75.1	3.36
Fishing	14.6	5.1	15.81**
Special natural or cultural feature	29.1	35.0	2.93
Wildlife	56.6	54.5	0.33
Biking	8.1	9.3	0.36
4 wheel drive	20.7	10.1	13.75**
Sport activities	23.2	11.3	16.17**
Parties	22.4	14.0	7.85**
Research	4.6	1.9	3.54
Part of tradition	22.7	22.6	0.00
Photography	21.0	26.1	2.62

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Table 5.12 illustrates the relation between motivations and age preference, there is a highly significant relation between motivational preferences of horse riding, motor, biking, off road driving, sport activities, and parties; with the age group of less than eighteen years of age ($p<0.01$) represented by 27.4%, 29.8%, 21.4%, 27.4%, 31% and 26.2%.

There were also significant relations between motivation of fishing and research purposes within the age group of less than eighteen ($p<0.05$), at 17.9% and 9.5% respectively. Furthermore there were no significant relations between other reasons of visit and age.

Table 5.12 Distribution of the sample members according to reasons for visited sites by age

Reasons	Age as percent of total				Chi-sq
	< 18	18-35	36-50	>50	
Horse riding	27.4	16.0	8.6	0.0	25.99**
Motor biking	29.8	22.3	6.5	5.1	40.62**
Camping	52.4	57.4	44.1	28.2	20.55
Picnicking	65.5	73.6	66.5	74.4	5.35
Fishing	17.9	12.8	9.0	2.6	8.50*
Special natural or cultural feature	33.3	30.2	31.0	33.3	0.44
Wildlife	53.6	56.4	59.2	35.9	7.63
Biking	21.4	7.7	6.9	0.0	22.94**
4 wheel drive	27.4	19.6	12.2	2.6	17.85**
Sport activities	31.0	20.6	14.7	12.8	12.08**
Parties	26.2	23.2	13.5	5.1	17.03**
Research	9.5	3.6	2.4	2.6	8.91*
Part of tradition	28.6	22.6	22.9	10.3	5.10
Photography	29.8	20.4	23.7	25.6	4.10

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relation between motivational preferences and educational level is depicted in Table 5.13, significant relations occur between the preference of motor biking and camping with the level of education were ($p<0.05$) with 22.7% of holders of less than high school certificates preferring motor biking and 57.6% of high school degree holders preferring camping. There were no significant relations between other reasons of visit and education level.

Table 5.13 Distribution of the sample members according to reasons for visited sites by education level

Reasons	Education as percent of total				Chi-sq
	< High School	High School	University	High Study	
Horse riding	18.2	11.9	14.5	13.9	3.35
Motor biking	22.7	19.3	16.1	6.9	9.50*
Camping	51.9	57.6	50.5	31.9	15.60*
Picnicking	66.9	73.6	72.2	61.1	5.81
Hunting	12.3	12.9	11.4	6.9	2.07
Special natural or cultural feature	24.0	28.8	35.6	33.3	7.55
Wildlife	47.4	56.9	59.6	54.2	6.51
Biking	11.7	8.5	8.2	2.8	5.09
4 wheel drive	20.1	18.6	15.5	15.3	2.17
Sport activities	19.5	22.0	18.6	13.9	2.80
Parties	20.8	19.7	19.9	18.1	0.24
Research	5.8	3.1	3.5	4.2	2.32
Part of tradition	22.1	22.4	24.6	16.7	2.20
Photography	14.3	20.7	27.1	27.8	11.55

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relationship between motivational preferences and social status is depicted in Table 5.14. There is highly significant relation between being single and the motivations for horse riding, motor biking, camping, biking, off road driving, sports activities, and parties; were ($p<0.01$). There was also a significant relation between being single and the motivation of research, were ($p<0.05$). Furthermore, there were no significant relations between other motivational preferences and social status.

Table 5.14 Distribution of the sample members according to reasons for visited sites by Social status

Reasons	Percentage		Chi-sq
	Single	Married	
Horse riding	22.3	10.1	22.78**
Motor biking	30.4	11.2	47.60**
Camping	64.7	45.0	28.89**
Picnicking	72.4	69.9	0.58
Fishing	18.4	8.3	18.46
Special natural or cultural feature	31.1	30.8	0.01
Wildlife	51.6	58.2	3.32
Biking	13.8	5.8	15.53**
4 wheel drive	28.3	11.9	34.94**
Sport activities	25.4	16.6	9.36**
Parties	31.4	13.9	36.44**
Research	6.0	2.7	5.57*
Part of tradition	25.4	21.3	1.87
Photography	24.0	21.8	0.53

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Table 5.15 represents the relation between motivational preferences and nationality. There are highly significant relations between holding a Bahraini passport and the motivational preference for horse riding, motor biking, camping, fishing, wildlife viewing, biking, sports activities, and parties were ($p < 0.01$).

These are also highly significant relations between citizens of Arab countries excluding GCC nationals and the preference of picnicking and as a result of traditional motivations, were ($p < 0.01$). Additionally, there is also a high significant relation between nationals form the Americas and Europ regions and the preference of off-road driving and photography. There was no significant relation between the motivational preference for visiting a special natural and cultural feature or research purposes and nationality.

Table 5.15 Distribution of the sample members according to reasons for visited sites by nationality

Reasons	Nationality as percent of total						Chi-sq
	Bahrain	GCC	Other Arab	North Africa	Far East	Americas & Europe	
Horse riding	17.3	8.3	5.0	15.0	5.4	0.0	20.10**
Motor biking	23.5	6.7	2.5	2.5	1.8	2.2	48.47**
Camping	64.8	16.7	37.5	22.5	12.5	11.1	151.70**
Picnicking	75.7	73.3	80.0	55.0	51.8	31.1	87.66**
Fishing	14.2	10.0	7.5	2.5	5.4	0.0	16.00**
Special natural /cultural feature	30.7	35.0	25.0	47.5	23.2	28.9	7.94
Wildlife	59.8	56.7	45.0	47.5	33.9	48.9	18.64**
Biking	11.1	6.7%	0.0	0.0	0.0	2.2	20.27**
4 wheel drive	20.6	10.0	7.5	2.5	1.8	26.7	27.61**
Sport activities	22.8	13.3	10.0	22.5	7.1	6.7	18.19**
Parties	23.6	15.0	5.0	10.0	10.7	8.9	20.57**
Research	4.7	1.7	2.5	2.5	1.8	0.0	6.82
Part of tradition	26.0	10.0	27.5	12.5	14.3	11.1	17.73**
Photography	19.8	25.0	7.5	35.0	33.9	44.4	28.09**

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

In summing the relations between the demographic variables and the motivational drive behind visiting the various natural and cultural areas in the Southern Governorate in Table 5.16, a clear variation occurs within the activities undertaken.

Table 5.16 Relation between demographics and motivational preferences

Motivation	%	Highly significant	Significant
Picnicking	70.8	Arab countries (excluding GCC)	---
Wildlife viewing	56.0	Bahraini	---
Camping	51.7	Bahraini, Single	Male, High school
Special natural or cultural feature	30.9	---	---
Traditional values	22.7	Arab countries (excluding GCC)	---
Photography	22.6	America and Europe	---
Parties	19.8	Bahraini, Single, Male, Age below 18	---
Sport activities	19.6	Bahraini, Single, Male, Age below 18	---
Motor biking	17.7	Bahraini, Male, Single, Age below 18	Less than high school
Off road driving	17.4	Male, Single, Age below 18, Americas and Europe	---
Horse riding	14.2	Bahraini, Single, Age below 18	Male
Fishing	11.7	Bahraini, Male	Age below 18
Biking	8.5	Bahraini, Single, Age below 18	---
Research	3.8	Single, Age below 18	---

- Picnicking was preferred by the majority at 70.8% of the sample size, with a highly significant relation to other Arab countries. Furthermore there were no significant relations to other demographic variables.

• Wildlife viewing was preferred by 56% of sample size, there was a highly significant relation to being a Bahrain citizen, but no other significant relation to demographic variables.

• The motivational drive for camping activities was preferred by 51.7% of the sample size; there were highly significant relations to being a Bahraini citizen and single. Furthermore there were significant relations between being male and holders of high school certificates and the camping activity, but no significant relations to age.

• In regard to the motivational preference for a special natural or cultural feature preferred by 30.9% of the sample members, there were no significant relations between demographic variables and this preference.

• The motivational preferences in visiting natural and cultural attractions, due to traditional values was chosen by 22.7% of sample members with a highly significant relation to nationals form other Arab countries, furthermore there were no significant relations to other demographic variables.

• Photography was preferred by 22.6% of the sample size, there was a highly significant relation to citizens from the Americas and Europe and this preference. There were no significant relations to other demographic variables.

• The motivational preferences for sports activities and parties accounted for 19.6% and 19.8% accordingly in the sample size, there were highly significant relations to Bahraini nationals, male, single, and less than eighteen years of age in both motivational activities, with no significant relation to educational level.

• Motor biking was preferred by 17.7% of the sample size, there was a highly significant relation to being a Bahrain citizen, male, single, and less than eighteen

years of age. Furthermore there was a significant relation between the preferences for motor biking and lower education levels of less than high school.

• The preference for off-road driving accounted for 17.4% of the sample size, there were highly significant relations to male gender, single, less than eighteen years of age and citizens from the Americas and European regions. There was no significant relation to education level.

• The motivational drive for horse riding in visiting natural and cultural attractions was preferred by 14.2% of the sample size, were highly significant relations occur to being a Bahraini citizen, single and below eighteen years of age. Furthermore, there was a significant relation between the activity and male preference, but there was no significant relation to educational level.

• Fishing was preferred by 11.7% of the sample size, there were highly significant relations to the male gender and Bahraini nationals. Additionally, there was a significant relation the age group of less than eighteen years of age. There were no significant relations to education level and social status.

• Biking was preferred by 8.5% of the sample size, were highly significant a relation occurs to Bahraini citizen, single and below eighteen years of age. There was no significant relation to gender or educational level.

• Research was preferred by only 3.8% of the sample size; there were highly significant relations to being single and less than eighteen years of age. There were no significant relations to other demographic variables.

5.5- RELATION BETWEEN DEMOGRAPHICS AND EVALUATING ATTRACTION

There were no significant variations to the various evaluation components in the study area as depicted in Table 5.17.

Table 5.17 Means and standard deviation of evaluation points for trip

Evaluation	Means	Standard deviation
Wildlife	2.69	1.31
Special natural or cultural feature	2.78	1.26
Environmental awareness of visitors	2.88	1.29
Public cleanliness	2.84	1.31
Safety and security	2.94	1.42
Public services	3.01	1.36
Visitor information centers	2.85	1.40
Information signs	2.94	1.41
Organized tours	2.68	1.43
Easy accessibility	2.97	1.34
Services provided by southern Governorate	2.99	1.31

The T-test was used to test the significant differences between gender and marital status toward the evaluation of attraction. Table 5.18 clearly indicates there were no significant differences between gender, marital status; and the evaluation of the attraction after applying the T-test.

Table 5.18 T-test and means for evaluations according to gender and marital status

Characteristic	Sub group	Means	Standard deviation	T-value
Gender	Male	2.90	0.94	0.42
	Female	2.86	1.05	
Marital status	Single	2.94	0.94	1.16
	Married	2.86	0.99	

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Furthermore the Anova test (F-Test) was used to test the significant difference between socio economic variables (age, education level, nationality) towards there evaluation of the attraction at the various sites The analysis showed no significant differences between age, education level, nationality; and the evaluation as depicted in Table 5.19.

Table 5.19 Analysis of variance for the evaluation according to age, educational level and nationality

Characteristic	Sub group	Means	Standard deviation	F-value
Age (years)	<18	2.84	1.06	0.12
	18-35	2.89	0.93	
	36-50	2.88	1.00	
	> 50	2.96	1.15	
Education level	< High School	3.01	1.03	1.72
	High School	2.92	1.04	
	University	2.82	0.90	
	High Study	2.76	0.85	
Nationality	Bahrain	2.91	0.94	2.07
	GCC	2.92	1.11	
	Other Arabs	2.96	1.13	
	North Africa	2.41	1.06	
	Far East	2.95	1.07	
	Americas & Europe	2.80	0.87	

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

5.6- VIEWS ON CONVENTIONAL TOURISM AND ECOTOURISM

Table 5.20 clearly indicates that the majority 68.3% would participate in natural and cultural tours and activities if the appropriate information was available. While only 10.9% were not interested and 20.9% were not decided. Additionally a high majority of the sample members at 85.6% supported ecotourism in the study area, while only 4.1% did not agree and 10.4% weren't decided.

Furthermore the majority at 78.3% of the sample members supports developing the tourism sector in the Southern Governorate; with 68.1% viewing this development to produce social benefits and 65.9% viewed it to contain economic benefits, while 53.6% of the sample members viewed it to contain environmental benefits.

Table 5.20 Distribution of sample members according to their tourism views

Information	Answer	Percent
If your receive information on cultural and natural activities and tours would you attend	Yes	68.3
	No	10.9
	Don't know	20.9
Do you support large tourism development projects in the southern Governorate	Yes	78.3
	No	7.0
	Don't know	14.7
The effect of large tourism development projects socially	Good	68.1
	Bad	9.3
	Don't know	22.6
The effect of large tourism development projects economically	Good	65.9
	Bad	9.5
	Don't know	24.6
The effect of large tourism development projects environmentally	Good	53.6
	Bad	18.9
	Don't know	27.6
Do you support eco-tourism in the study area	Yes	85.6
	No	4.1
	Don't know	10.4

5.7- RELATION BETWEEN DEMOGRAPHICS AND SERVICES NEEDED TO DEVELOP ECOTOURISM IN THE STUDY AREA

The appropriate services needed in developing ecotourism as depicted by the sample members, is presented in Table 5.21. The majority at 70.6% saw the need for zoning areas according to the various activities undertaken. Additionally 61.7% needed souvenir shops to be established and traditional handicrafts to be promoted, while 54.9% saw the need for organized public transport.

Furthermore 51.7% saw the need of developing Eco-lodge or eco-camp and 45.5% for the development of walking trails. Other services include 45% for developing protected areas, 44.2% for information signs, 42.1% for security services, 40.1% for medical services and 34.2% for information centers.

Table 5.21 Distribution of the sample members according to appropriate services needed to develop Ecotourism

Services	Percent
Information centers	34.2
Walking trials	45.5
Souvenir shops & traditional crafts	61.7
Eco-loge or eco-camp	51.7
Organized public transports	54.9
Protected areas	45.0
Zoning areas according to activity	70.6
Information signs	44.2
Security services	42.1
Medical services	40.1

The relation between services required to develop ecotourism and gender preference is depicted in Table 5.22, there is a significant relation between the requirement of information signs and security services, with the male gender were ($p<0.05$) at 58.3% and 60.2% accordingly. Furthermore there were no significant relations between other service requirements and gender.

Table 5.22 Distribution of the sample members according to appropriate services needed to develop Ecotourism by Gender

Services	Percent		Chi-sq
	Male	Female	
Information center	67.3	62.3	2.01
Walking trials	53.2	57.6	1.39
Souvenir shops	38.6	37.7	0.05
Eco-loge or eco-camp	48.0	49.0	0.07
Organized public transports	45.1	45.1	0.00
Protected areas	54.9	55.3	0.01
Zoning areas according to activity	30.6	26.5	1.50
Information signs	58.3	50.2	4.80*
Security services	60.2	52.5	4.34*
Medical services	61.1	57.2	1.13

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Further more there is a significant relation between age and the requirements of medical services as depicted in Table 5.23 were($p < 0.01$), 65.2% in both age categories of less than eighteen and those between 18 to 35 years. Thus the younger more active generations require medical services. Additionally, there is also a significant relation between age and the requirement of walking trails ($P < 0.05$), 66.7% were less than eighteen. There were no significant relations between age and other service requirements.

Table 5.23 Distribution of the sample members according to appropriate services needed to develop Ecotourism by age

Services	Age as percent of total				Chi-sq
	< 18	18-35	36-50	>50	
Information centers	61.9	65.1	68.6	64.1	1.55
Walking trials	66.7	53.8	53.9	41.0	7.99*
Souvenir shops	47.6	37.2	38.8	28.2	5.02
Eco-loge or eco-camp	52.4	48.7	48.6	33.3	4.10
Organized public transports	41.7	45.7	46.5	35.9	2.01
Protected areas	59.5	53.8	57.6	43.6	3.65
Zoning areas according to activity	28.6	28.1	31.8	30.8	1.15
Information signs	60.7	55.1	57.1	46.2	2.56
Security services	58.3	60.9	53.1	51.3	4.74
Medical services	65.2	65.2	54.0	55.9	12.80**

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relation between services preference in developing ecotourism and the level of education is shown in Table 5.24. There are highly significant relations between the level of education and the preference for information centers and protected areas by holders of post graduate degrees at 73.6%, and 61.1% accordingly, were ($p<0.01$).Additionally there is also a highly significant relation between holders of high school certificates and the preference for security services at 62.4%.

There are significant relations between the service preference of information signs and medical services and holders of High school certificate were ($p<0.05$) at 60.7% and 63.4% accordingly. Additionally a significant relation occurs between the preference of organized public transport to natural areas at 51.4% and holders of post graduate degrees. Furthermore there were no significant relations between other service preferences and educational levels.

Table 5.24 Distribution of the sample members according to appropriate services needed to develop Ecotourism by Education level

Services	Education as percent of total				Chi-sq
	< High School	High School	University	High Study	
Information centers	56.5	61.4	72.6	73.6	16.88**
Walking trials	56.5	57.6	52.1	48.6	3.18
Souvenir shops	40.9	37.6	37.2	40.3	0.77
Eco-loge or eco-camp	41.6	48.8	51.7	45.8	4.51
Organized public transports	35.1	45.8	47.9	51.4	8.51*
Protected areas	44.2	53.9	59.9	61.1	11.67**
Zoning areas according to activity	26.6	26.8	32.2	33.3	3.26
Information signs	46.8	60.7	56.2	54.2	8.05*
Security services	49.4	62.4	60.6	45.8	12.26**
Medical services	56.5	63.4	61.5	45.8	8.51*

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Table 5.25 depicts the relationship between service preference in developing ecotourism and social status. There is highly significant relation between being single and the service preference of eco-loge or eco-camp, security services and medical services; were ($p<0.01$) at 55.1%, 65.4% and 67.8% accordingly.

There was also a significant relation between being single and the preference of souvenir shops and traditional craft promotion at 43.5%, were ($p<0.05$). Furthermore there were no significant relations between other service preferences and social status.

Table 5.25 Distribution of the sample members according to appropriate services needed to develop Ecotourism by Marital status

Services	Percent		Chi-sq
	Single	Married	
Information centers	65.4	65.9	0.03
Walking trails	56.5	53.5	0.69
Souvenir shops	43.5	35.7	4.81*
Eco-loge or eco-camp	55.1	44.9	7.90**
Organized public transports	48.4	43.4	1.88
Protected areas	56.2	54.4	0.24
Zoning areas according to activity	32.2	27.9	1.61
Information signs	57.6	55.0	0.53
Security services	65.4	54.1	9.85**
Medical services	67.8	55.9	11.21**

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relation ship between nationality and the service preference is depicted in Table 5.26. There is highly significant relation between visiting the various sites, were ($p<0.01$) and the nationality, except at Al Areen Park were the relationship is significant at ($p<0.05$).

There is a highly significant relation between being a Bahraini citizen and the service preference of eco-lodge, security services and medical services at 54.1%, 66.3%, and 66.8% accordingly, were ($p<0.01$). Furthermore there is also a highly significant relation between being a citizen from the African region and the preference for

souvenir shops and organized public transports at 50% and 62.5% accordingly. Additionally there is a highly significant relation between being from the Americas and Europe region and having the service preferences for walking trails and protected areas both at 62.2%.

There was a significant relation between members from Americas and Europe region and the service preference for information centers and zoning, were ($p<0.05$) at 73.3% and 33.3% accordingly.

Table 5.26 Distribution of the sample members according to appropriate services needed to develop Ecotourism by nationality

Services	Nationality as percent of total						Chi-sq
	Bahrain	GCC	Other Arab	Africa	Far East	Americas & Europe	
Information centers	67.3	61.7	42.5	67.5	62.5	73.3	12.18*
Walking trials	58.6	46.7	47.5	37.5	30.4	62.2	25.28**
Souvenir shops	41.4	28.3	37.5	50.0	23.2	20.0	19.00**
Eco-loge or eco-camp	54.1	31.7	27.5	27.5	42.9	37.8	31.22**
Organized public transports	46.2	41.7	37.5	62.5	50.0	20.0	18.41**
Protected areas	59.1	45.0	37.5	52.5	30.4	62.2	26.28**
Zoning areas according to activity	31.5	23.3	5.0	25.0	30.4	33.3	14.54*
Information signs	60.6	38.3	40.0	50.0	44.6	48.9	21.38
Security services	66.3	48.3	40.0	22.5	42.9	24.4	71.33**
Medical services	66.8	55.0	42.5	45.0	44.6	22.2	53.21**

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

As for the suggestions by the sample members to in the open ended question on developing ecotourism in the Southern Governorate, in addition to the above services, there was a need to establish gardens and play grounds for children, and special areas for cycling.

In summing the relations between the demographic variables and the preference of services required to develop nature based tourism and more specifically ecotourism in Table 5.27, a clear variation in preference according to the demographic variables are highlighted below:

Table 5.27 Relation between demographics and service preference

Service	%	Highly significant	Significant
Zoning	70.6	---	Americas & Europe region
Souvenir shops	61.7	African region	Single
Public transport	54.9	African region	Post graduate
Eco-lodge or eco-camp	51.7	Bahraini, Single	---
Walking trails	45.5	Americas & Europe region Age below 18	---
Protected areas	45.0	Americas & Europe region Post graduate	---
Information signs	44.2		Male , High school
Security services	42.1	Bahraini, Male, Single High school	---
Medical services	40.1	Bahraini, Single, High school Age below 18 & Age 18-35	---
Information centers	34.2	Post graduate	Americas & Europe region

• The need for zoning according to the various activities undertaken in natural areas was preferred by the majority at 70.6% of sample members, with a significant relation to citizens from the Americans and European regions, while there were no significant relations to other demographic variables.

• Souvenir shops were preferred by 61.7% of the sample size; there was a highly significant relation to citizens from the African region, and a significant relation to being single. There were no significant relations to other demographic variables and this service preference.

• The preference for organized public transport was preferred by 54.9% of sample size, a highly significant relation occur to citizens from the African region, and a

significant relation to post graduate degree holders. There were no significant relations to other demographic variables.

• Eco-lodge or eco-camps were preferred by 51.7% of the sample size; there were highly significant relations to being single and a Bahraini national. There were no significant relations to other demographic variables.

• The preference of walking trails was preferred by 45.5% of the sample members, were there was a highly significant relation to citizens from the Americans and European regions and a highly significant relation to the younger generation below the age of eighteen years. There were no significant relations to other demographic variables.

• The establishment of protected areas was preferred by 45% of the sample members, there were highly significant relations to citizens from the Americans and European regions; and to holders of post graduate degrees. There were no significant relations to other demographic variables.

• The need for information signs to indicate the places of natural and cultural attractions for ecotourism was preferred by 44.2% of the sample members, were significant relations occur to male gender and holders of high school certificates. There were no significant relations to other demographic variables.

• The preference for enhance security in remote natural areas in order to promote ecotourism was preferred by 42.1% of the sample members; highly significant relations occur to being a Bahraini national, male, single and holders of high school certificates. There was no significant relation to age.

• The need for the availability of medical services was preferred by 40.1% of the sample members. Highly significant relations occurred to Bahraini national,

single, holders of high school certificates and in both age groups less than eighteen years of age and from eighteen to thirty five. There was no significant relation to gender.

• The establishment of information centers was preferred by 34.2% of the sample members, were there was a highly significant relation to higher education levels of post graduate holders and a significant relation to citizens from the Americans and European regions. There were no significant relations to other demographic variables with this preference.

5.8- RELATION BETWEEN DEMOGRAPHICS AND ACTIONS NEEDED TO DEVELOP ECOTOURISM IN THE STUDY AREA

The distribution of the sample members according to their views of various actions needed in order to develop ecotourism in the Southern governorate is depicted in Table 5.28. More than half of the sample members at 63.6% saw the need for stronger roles to civil societies and the private sector involvement in ecotourism (action1), and 59.7% saw the need in implementing proper management (action 2), and 50.2% saw the need for stronger government involvement in maintaining and developing natural areas (action 3).

Other actions needed were to develop the legal framework to protect nature and ecotourism development (action 4) accounted by 47.9%, developing strategies for ecotourism at 46.5% of the sample (action 5), benefiting local communities accounted for 44.6% (action 6). While only 36.9%, 37.7% and 32.7% accounted for stronger cooperation between government, civil society and private sector (action 7); develop cultural and nature conservation programs (action 8); and finally increase public awareness programs respectively (action 9).

Table 5.28 Distribution of the sample members according to appropriate actions needed in developing Ecotourism

Appropriate actions	Percent
Stronger cooperation between government, civil society and private sector	36.9
Increase public awareness campaigns	32.7
Develop cultural and nature conservation programs	37.7
Stronger role to civil society and private sector	63.6
Strategies for ecotourism development	46.5
Develop legal framework to protect nature and ecotourism	47.9
Implement proper management	59.7
Stronger Government role in maintaining and developing natural area	50.2
Benefiting local community through their involvement in ecotourism	44.6

The relation between the preference of actions needed in order to develop ecotourism and gender preference is depicted in Table 5.29. There is highly significant relation between strengthening cooperation between government, civil society and private sector; and male gender ($p<0.01$) at 67.6%. Additionally there is a significant relation between Strategies for ecotourism development and male gender ($p<0.05$), with 55.8%. Furthermore there were no significant relations between other actions preferred and gender.

Table 5.29 Distribution of the sample members according to appropriate actions needed in developing Ecotourism by Gender

Appropriate actions	Percent		Chi-sq
	Male	Female	
Stronger cooperation government, civil society and private sector	67.6	52.9	16.59**
Increase public awareness campaigns	68.2	65.4	0.63
Develop cultural and nature conservation programs	62.7	61.5	0.10
Stronger role to civil society and private sector	36.7	35.8	0.06
Strategies for ecotourism development	55.8	48.2	4.05*
Develop legal framework to protect nature and ecotourism	53.5	49.0	1.44
Implement proper management	41.7	37.4	1.37
Stronger Government role in maintaining and developing natural area	49.7	49.8	0.00
Benefiting local community through their involvement in ecotourism	55.9	54.1	0.25

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relation between the preference of actions needed in order to develop ecotourism and age is depicted in Table 5.30, showing no significant relations to age.

Table 5.30 Distribution of the sample members according to appropriate actions needed in developing Ecotourism by age

Appropriate actions	Age as percent of total				Chi-sq
	< 18	18-35	36-50	>50	
Stronger cooperation government, civil society and private sector	59.5	64.9	51.4	53.8	1.09
Increase public awareness campaigns	57.1	63.2	65.7	59.0	5.52
Develop cultural and nature conservation programs	66.7	66.8	70.6	53.8	4.81
Stronger role to civil society and private sector	69.0	61.7	63.3	48.7	1.05
Strategies for ecotourism development	34.5	36.8	37.6	28.2	1.38
Develop legal framework to protect nature and ecotourism	54.8	52.8	54.7	51.3	1.36
Implement proper management	56.0	50.4	54.3	51.3	3.40
Stronger Government role in maintaining and developing natural area	48.8	40.0	38.8	35.9	5.87
Benefiting local community through their involvement in ecotourism	51.2	51.1	49.8	30.8	1.23

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relation between preferred actions to develop ecotourism and educational level is depicted in Table 5.31, with one significant relation between requirement for stronger Government role in maintaining and developing natural area and moderate education levels, with holders of high school certificates at 56.3% were ($p < 0.01$). There were no significant relations between other actions preferred and education level.

Table 5.31 Distribution of the sample members according to appropriate actions needed in develop Ecotourism by education level

Appropriate actions	Education as percent of total				Chi-sq
	< High School	High School	University	High Study	
Stronger cooperation government, civil society and private sector	57.8	62.7	66.6	61.1	3.63
Increase public awareness campaigns	63.0	66.4	70.0	68.1	2.49
Develop cultural and nature conservation programs	64.9	61.7	61.2	63.9	0.74
Stronger role to civil society and private sector	35.1	34.9	39.1	33.3	1.70
Strategies for ecotourism development	46.1	51.9	57.4	58.3	6.33
Develop legal framework to protect nature and ecotourism	51.9	54.2	50.5	51.4	0.89
Implement proper management	38.3	41.0	39.7	44.4	0.87
Stronger Government role in maintaining and developing natural area	45.5	56.3	48.9	36.1	11.60**
Benefiting local community through their involvement in ecotourism	57.8	55.6	55.5	48.6	1.70

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

Furthermore there were no relations between the preference of actions needed in order to develop ecotourism and social status as depicted in Table 5.32.

Table 5.32 Distribution of the sample members according to appropriate actions needed In order to develop Desert Eco-tourism by marital status

Appropriate actions	Percent		Chi-sq
	Single	Married	
Stronger cooperation government, civil society and private sector	63.3	63.1	0.00
Increase public awareness campaigns	67.1	67.4	0.00
Develop cultural and nature conservation programs	65.7	60.5	2.14
Stronger role to civil society and private sector	39.2	35.0	1.47
Strategies for ecotourism development	54.8	52.8	0.29
Develop legal framework to protect nature and ecotourism	53.4	51.5	0.25
Implement proper management	44.2	38.4	2.61
Stronger Government role in maintaining and developing natural area	52.3	48.5	1.10
Benefiting local community through their involvement in ecotourism	60.1	53.0	3.82

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

The relation ship between nationality and the actions preferred to develop ecotourism is depicted in Table 5.33. There is a highly significant relation were ($p < 0.01$) between being a Bahraini citizen and actions preferred to develop ecotourism, which include, stronger cooperation between government, civil society and private sector at 67.7%; developing culture and nature conservation programs at 66.2%; developing legal framework to protect nature and ecotourism at 58%; implementing proper management at 44.4%; stronger government role in maintaining and developing natural area at 54.9%; and benefiting local community through their involvement in ecotourism at 61.1%.

Furthermore, there was also a significant relation ($p < 0.05$) between being a Bahraini citizen and the need for strategies for ecotourism development, while there was no significant relation to increase public awareness and nationality preference.

Table 5.33 Distribution of the sample members according to appropriate actions needed in developing Ecotourism by nationality

Appropriate actions	Nationality as percent of total						Chi-sq
	Bahrain	GCC	Other Arab	North Africa	Far East	Americas & Europe	
Stronger cooperation government, civil society and private sector	67.7	46.7	40.0	52.5	58.9	60.0	24.03**
Increase public awareness campaigns	69.5	60.0	60.0	72.5	62.5	55.6	7.65
Develop cultural and nature conservation programs	66.2	55.0	45.0	60.0	51.8	51.1	15.38**
Stronger role to civil society and private sector	42.0	25.0	22.5	32.5	19.6	13.3	32.32**
Strategies for ecotourism development	56.8	53.3	40.0	42.5	35.7	53.3	14.58*
Develop legal framework to protect nature and ecotourism	58.0	38.3	35.0	47.5	32.1	37.8	30.42**
Implement proper management	44.4	30.0	17.5	25.0	39.3	35.6	19.76**
Stronger Government role in maintaining and developing natural area	54.9	38.3	37.5	40.0	25.0	46.7	27.38**
Benefiting local community through their involvement in ecotourism	61.1	38.3	40.0	50.0	42.9	35.6	30.07**

* significant ($\alpha < 0.05$) ** significant ($\alpha < 0.01$)

While suggestions by the sample members to the open ended question to the appropriate actions needed to develop ecotourism in the study area were for better management of the natural areas, strengthen environmental awareness campaigns, encourage private venture and increase the number of activities and programs in the natural areas.

In summing the relations between the demographic variables and the preference of actions required to develop nature based tourism and more specifically ecotourism Table 5.34, little variation in preference according to demographic variables were noticed as follows:

Table 5.34 Relation between demographics and action preference

Action	%	Highly significant	Significant
Stronger role to civil society and private sector	63.6	Bahraini	---
Implement proper management	59.7	Bahraini	---
Stronger Government role in maintaining and developing natural area	50.2	Bahraini	---
Develop legal framework to protect nature and ecotourism	47.9	Bahraini	---
Strategies for ecotourism development	46.5	---	Bahraini
Benefiting local community through their involvement in ecotourism	44.6	Bahraini	Male
Develop cultural and nature conservation programs	37.7	High school	---
Stronger cooperation between government, civil society and private sector	36.9	Male	---
Increase public awareness campaigns	32.7	---	---

- There were highly significant relations between Bahraini nationals and all of the above actions needed to develop ecotourism, , except for two actions, namely: there was only a significant relation between Bahraini nationals and the need for strategies for ecotourism development, while there was no significant relation between nationality and the need for increased public awareness.

- There was a highly significant relation to holding a high school certificate and the preference for developing cultural and natural conservation programs. There were no other significant relation between preferred actions and educational levels.

- There was a highly significant relation to male gender and the preference for stronger cooperation between government, civil society and private sector, further a significant relation between male gender and benefiting local communities. There were no other significant relation between preferred actions and gender.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1-CONCLUSION

• The study area is endowed with numerous natural, historical, cultural, recreational, educational and modern historical attractions providing the puller factor and promotional image to boost tourism in the county, this is further backed by the strong government commitment to position Bahrain as a as a high quality leisure and tourism destination for the outbound markets of Middle East, Europe and Asia.

• The field survey, established the current eight valued sites for their value in nature based tourism in the Southern Governorate, they included the camping areas, Tree of Life, Al- Areen Park & Reserve, Al- Hunainiya Valley, Sheikh Salman bin Ahmed Al Fateh Fort, Oil Museum, the coastal strips of Al Jazair beach, Jaw and Askar, and the Hawar Islands. Various components were assessed indicating variations between historical and ecological importance; accessibility; activities undertaken; services provided; and the anthropogenic effects in the eight sites.

• After analyzing the 838 questionnaires, the current study provided the demographics of tourism flow to the study area at the eight designated sites with the majority of the sample members being Bahraini males; with more than half between eighteen to thirty five year of age and holders of high school or university degrees.

• Furthermore the majority of the sample members were on family oriented trips to natural areas, preferring holidays and weekend's best; and more than half preferred the camping season for nature based tourism as opposed to other seasons.

• The study also showed that there were clear variations between demographic variables and tourism flow to the eight designated sites in the study area. Preference for the camping area by the majority of the sample members showed that single Bahraini male nationals between 18 to 35 years of age, and holders of high school certificates were attracted to the area. Additionally more than half of the sample members preferred Sheikh Salman bin Ahmed Al Fateh Fort with highly significant relation to Bahraini nationals.

• Areen Park, Tree of Life, and the ancient sites were preferred by citizens form the Far Eastern countries. Special preferences by the female gender, and holders of higher education levels for Al Areen Park. The Tree of Life was preferred by single males; and ancient sites were preferred by the older generation with higher education levels. The Hawar Islands were preferred by GCC nationals, while the coastal areas were preferred by other Arab nationals from 18 to 35 year of age with lower education levels of less than high school.

• There also existed a clear variation between demographic variables and the motivational drive for visiting the various attractions in the study area. The majority of the sample members choose picnicking with highly significant relations to other Arab nationals. This was followed by the preference for wildlife viewing and camping with a highly significant relation to being Bahraini nationals, with the later being single and with moderate education levels of high school. Other motivational drives to a lesser extent included horse riding, motor biking, fishing, viewing a special natural or cultural feature, biking, off-road driving, sports, research, photography and as part of the traditional cultures of the sample members.

• In regard to the evaluation of the natural surroundings by the sample members there were no significant differences between gender and marital status after applying the T-test. Additionally there were no significant differences between age, education level, and nationality after applying the F-test.

• The study also showed that 68.3% of the sample members would participate in natural and cultural tours and activities if the appropriate information was available, furthermore the majority of 85.6% would support ecotourism development in the study area.

• Additionally 78.3% of the sample members would support the development of the tourism sector in the study area; with 68.1% viewing this development to produce social benefits; 65.9% to produce economic benefits, and 53.6% to produce environmental benefits.

• In analyzing the relations between demographic variables and the preference of services required to develop nature based tourism and more specifically ecotourism, a clear variation of preference occur. The majority at 70.6% had a preference for zoning according to the various activities undertaken with significant relations to citizens from the Americans and European regions. While the need for souvenir shops and traditional crafts were preferred by 61.7% of the sample size with a highly significant relation to citizens form the African region, and significant relation to being single.

• Furthermore the need for organized tours was preferred by 54.9% of sample size, with a highly significant relation to citizen's form the African region, and a significant relation to higher education levels, while eco-lodge or eco-camps were preferred by 51.7% of the sample size; with highly significant relations to being Bahraini national and single.

• Additionally the need for walking trails and protected areas were preferred by 45.5% and 45% of sample members, with a highly significant relation to citizens from the Americans and European regions the former being favored by the younger generations, while the later to members with higher education levels.

• Preference for information signs and security services were preferred by 44.2% and 42.1% of the sample members with significant relation to the former and highly significant relation to the later for male gender and holders of high school

certificates, with the later being additionally preferred by single Bahraini's. As for the availability of medical services this need was preferred by 40.1% of the sample members with highly significant relations to Bahraini national, single, with moderate education levels of high school and in the age group from less than eighteen years of age to thirty five. While the information centers were preferred by 34.2% of the sample members, with highly significant relation to higher education levels of post graduate degrees; and significant relation to citizens from the Americans and European regions.

• The study also showed the relations between the demographic variables and the preference of actions required to develop nature based tourism and more specifically ecotourism, with 63.7% saw the need for a stronger role to civil societies and private sector. Furthermore 59.7% of the sample population saw the need for the implementation of proper management in developing ecotourism, and 50.2% saw the need for a stronger government role in maintaining and developing the natural areas.

• Though there was little variation in preference of actions according to demographic variables, there were highly significant relations between Bahraini nationals and all of the above actions needed to develop ecotourism, except for two actions, namely: there was only a significant relation between Bahraini nationals and the need for strategies for ecotourism development, while there was no significant relation between nationality and the need for increased public awareness.

• Furthermore there was a highly significant relation between moderate education level of high school and the preference for stronger government role in maintaining and developing natural area. Additionally there was a highly significant relation between male gender and the preference for a stronger cooperation between government, civil society and the private sector; while a significant relation occurred between male gender and the preference for strategies for ecotourism development.

6.2-RECOMMEDATIONS

The following recommendations and suggestions are required to promote nature based tourism in the kingdom of Bahrain, and more specifically in the Southern Governorate:

- Strong coordination between conservation initiatives and tourism initiatives in the Kingdom of Bahrain needs to be achieved in promoting nature based tourism in the country.

- There is a need to preserve the natural integrity of the various ecosystems in the southern Governorate for future generation and promote the natural areas for ecotourism development.

- The importance of cultural attractions in a destination is a vital tool in complementing nature based tourism; the sites in the southern governorate need much attention and restoration to better enhance and promote nature base tourism.

- Through the monitoring and management of protected areas in the Southern Governorate, and their promotion as ecotourism destinations, will foster their preservation, increasing public appreciation to their value, and financing their protection though ecotourism revenues.

- Promote small and medium businesses in initiating nature based tourism, with proper implementation of the principals and guidelines of sustainability.

- Strengthen the role of the civil society in promoting nature based tourism, in raising public awareness and initiating programs to foster sustainable nature base tourism.

- Involvement and empowerment of local communities in the ecotourism development process, in management and monitoring of ecotourism activities, and in the sharing of benefits resulting from it.

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APPENDIX

Questionnaire 1

Questioner for Ecotourism in the Southern Governorate, Bahrain

Deanship of Scientific Research, University of Bahrain

Researcher: Nada Al khalili

This is a study for tourists and visitors who visit natural areas in the Southern Governorate in Bahrain. The information in this interview is confidential. It will take just few minutes of your time. Thank you in advance for helping in this survey, your opinion will be highly appreciated.

1 Questioner No. ☐

2 Place of Interview ☐

3 Date ☐

A. Visitor information (Please tick appropriate response)

4 Nationality ----------

5 Gender: ☐ Male ☐ Female

6 Age group ☐ below 18 ☐ 19-35 ☐ 36-50 ☐ 51-56 ☐ above 65

7 Status ☐ Single ☐ Married ☐ Others

8 Education ☐ below high school ☐ High School ☐ University ☐ Post Graduate

9 Occupation ☐ Student ☐ Unemployed ☐ Military ☐ Retired ☐ Professional

☐ Other s (please specify) ----------

10 Monthly income in BD ☐ below 400 ☐ 400-800 ☐ 801-1200

☐ 1201-1600 ☐ 1601-more ☐ Nil

11 Are you a resident of the Southern Governorate ☐ Yes ☐ No

B. Trip information (Please tick appropriate response)

12 During the year, how many times do you visit natural areas in Southern Governorate? ☐ Times

13 Do you usually go during ☐ Summer ☐ Autumn ☐ Winter ☐ Spring

14 Best time to go? ☐ Weekdays ☐ Weekends ☐ Holidays

15 Trip type ☐ Individual ☐ Family/friends ☐ Organized tour

16 Have you visited any of the sites listed below? ☐ Yes ☐ No

if yes please tick appropriate box on list

if No please go to Question number 21

- ☐ Desert area in Sakhir
- ☐ Jabal Aldukhan area
- ☐ Al Areen Park
- ☐ Riffa Fort
- ☐ Ancient sites in Southern Governorate
- ☐ Al Hunainiya valley
- ☐ Tree of Life
- ☐ Coastal areas
- ☐ Hawar Islands
- ☐ Oil museum

17 How did you find about them? ☐ Tourism agencies & local hotels ☐ Friends & relatives ☐ Personnel Visits ☐ Bahrain Media

18 What was your reason for visiting these sites?

- ☐ Recreation
- ☐ Motor biking
- ☐ Camping
- ☐ Picnicking
- ☐ Fishing
- ☐ Special natural / cultural features
- ☐ Wildlife
- ☐ Photography
- ☐ Bicycling
- ☐ Off road driving
- ☐ Research
- ☐ Cultural Heritage and tradition
- ☐ Others please specify----------

19 Evaluate the Natural State in the following sites

	Good	Acceptable	Poor
Desert area in Sakhir	☐	☐	☐
Jabal Aldukhan area	☐	☐	☐
Al Areen Park	☐	☐	☐
Riffa Fort	☐	☐	☐
Ancient sites in Southern Governorate	☐	☐	☐
Al Hunainiya valley	☐	☐	☐
Tree of Life	☐	☐	☐
Coastal areas	☐	☐	☐
Hawar Islands	☐	☐	☐
Oil museum	☐	☐	☐

20 Evaluate the Services in the following sites

	Good	Acceptable	Poor
Desert area in Sakhir	☐	☐	☐
Jabal Aldukhan area	☐	☐	☐
Al Areen Park	☐	☐	☐
Riffa Fort	☐	☐	☐
Ancient sites in Southern Governorate	☐	☐	☐
Al Hunainiya valley	☐	☐	☐
Tree of Life	☐	☐	☐
Coastal areas	☐	☐	☐
Hawar Islands	☐	☐	☐
Oil museum	☐	☐	☐

21 Specify the reason or reasons for not visiting the sites

☐ lack of knowledge

☐ lack of time

☐ No interest

☐ absence of activities in these sites

☐ No tours traveling to these sits

☐ Absence of programmes in the media

☐ Poor services

☐ Others please specify ----------

22 If you receive information on natural or cultural activities, tours or campaigns would you attend?

☐ Yes ☐ No ☐ Don't know

23 Do you support mass tourism development projects in the Southern Governorate?

☐ Yes ☐ No ☐ Don't know

24 The effect of mass tourism on the southern governorate on the following

EFFECT	Positive	Negative	Don't Know
Socially			
Economically			
Environmentally			

25 Do you like to preserve and enhance natural areas in the Southern Governorate and develop its tourist potential for Eco-tourism

☐ Yes ☐ No **(if No please do not answer the rest of the questions)**

26 In your opinion tick appropriate service or services needed in order to develop Desert Eco-tourism

- ☐ Information centers
- ☐ Reception facilities
- ☐ Souvenir shops
- ☐ Eco-lodg
- ☐ Transport
- ☐ Protected areas
- ☐ Trails & Zoning areas according to activity
- ☐ Others please specify----------

27 In your opinion tick appropriate action or actions needed in order to develop Desert Eco-tourism

- ☐ Stronger cooperation between government, civil society and private sector
- ☐ Increase public awareness campaigns
- ☐ Develop conservation programmers
- ☐ Preserve cultural heritage
- ☐ Organized Ecotours
- ☐ Develop strategies and strengthen management
- ☐ Others please specify----------

28 In you opinion how can we reach a balance between Eco-tourism and current and future tourism development projects like Bahrain racing circuit, house racing, golf course, Al Areen health resort ect.. ?

26 Would you like to add any additional comments to this survey?

Questionnaire 2

استبيان السياحة البيئية في المحافظة الجنوبية بمملكة البحرين

عمادة البحث العلمي - جامعة البحرين

الباحثة: ندى الخليلي

هذا الاستبيان موجه لزائر وسائح المناطق البيئية الصحراوية في المحافظة الجنوبية لمملكة البحرين. نرجو منكم التكرم بتعبئة هذه الاستمارة علما بان المعلومات الواردة سوف تستخدم لاغراض البحث العلمي فقط. شاكرين لكم حسن تعاونكم.

1 *رقم الاستمارة* _____

2 *موقع المقابلة* _____

أ. معلومات عن الزائر (الرجاء ضع علامة على الاجابة المناسبة في المربع)

3 الجنسية _____ هل تقيم في البحرين أ نعم ب لا

4 الجنس أ ذكر ب انثى

5 العمر أ أقل من 18 ب 19-35 ج 36-50 د 51-65 هـ أكبر من 66

6 الحالة الاجتماعية أ أعزب ب متزوج ج اخرى

7 التعليم أ أقل من ثانوي عام ب ثانوي عام ج جامعي د دراسات عليا

8 الوظيفة _____

9 الراتب الشهري بالدينار البحريني:

أ أقل من 400 ب 400-800 ج 801-1200 د 1201-1600 هـ أكثر من 1601

ب. معلومات عن الرحلة (الرجاء ضع علامة على الاجابة المناسبة في المربع)

10 تذهب الى المناطق البيئية في المحافظة الجنوبية في: أ وقت التخييم ب خارج اوقات التخييم ج طوال العام

11 أفضل وقت للذهاب أ خلال الاسبوع ب نهاية الاسبوع و العطل الرسمية

12 نوع الرحلة أ رحلة فردية ب رحلة عائلية أو مع الاصدقاء ج رحلة منظمة

13 هل قمت بزيارة أحد الاماكن المذكورة ادناه في المحافظة الجنوبية؟

أ	منطقة التخييم	د	السواحل	ز	الآثار والمدافن
ب	شجرة الحياة	هـ	وادي الحنينية	ح	متحف النفط
ج	محمية العرين	و	قلعة الرفاع	ط	جزر حوار

14 ما الدوافع للذهاب الى هذه الاماكن؟

أ	ركوب الخيل	ح	ركوب الدراجات الهوائية
ب	ركوب الدراجات النارية	ط	قيادة سيارات ذات الدفع الرباعي
ج	تخييم	ي	العاب رياضية
د	التنزه	ك	حفلات
هـ	صيد السمك	ل	اجراء ابحاث علمية
و	زيارة معالم طبيعية وتراثية مميزة	م	هي جزء من عادات متوارثة
ز	التمتع بالحياة البرية	ن	التصوير الفوتوغرافي

15 قيم الوضع الحالي للمناطق البيئية في المحافظة الجنوبية

	الوضع	ممتاز	جيد جدا	جيد	مقبول	رديء
أ	البيئة الفطرية	5	4	3	2	1
ب	معالم طبيعية وتراثية	5	4	3	2	1
ج	الوعي البيئي لدى الزوار	5	4	3	2	1
هـ	النظافة العامة	5	4	3	2	1
و	الامن والسلامة	5	4	3	2	1
ز	الخدمات العامة	5	4	3	2	1
ح	تواجد مراكز لارشاد الزوار	5	4	3	2	1
ط	اللوحات الارشادية	5	4	3	2	1
ي	توافرالرحلات السياحية المنظمة	5	4	3	2	1
ك	سهولة الوصول والتنقل	5	4	3	2	1
ل	مستوى الخدمات التي تقدمها المحافظة الجنوبية	5	4	3	2	1

ج. رأي عام (الرجاء ضع علامة على الاجابة المناسبة في المربع)

16 لو علمت بوجود نشاطات بيئية وتراثية ورحلات سياحية بيئية فهل ترغب بالمشاركة بها؟

أ نعم ب لا ج لا أعلم

17 هل تساند التطور السياحي والمشاريع السياحية الكبيرة في المحافظة الجنوبية؟

أ نعم ب لا ج لا أعلم

18 حدد أثر هذة المشاريع السياحية الكبيرة على النواحي التالية:

أ-الاجتماعية أ أيجابي ب سلبي ج لا أعلم

ب-الاقتصادية أ أيجابي ب سلبي ج لا أعلم

ج-البيئية أ أيجابي ب سلبي ج لا أعلم

19 هل تشجع مفهوم السياحة البيئية في المحافظة الجنوبية ؟

أ نعم ب لا

20 بوجهة نظرك ضع علامة على الخدمات التي تراها مناسبة لتطوير السياحة البيئية

أ	وجود مركز لمعلومات السياحة	و	محميات طبيعية
ب	ممشى خاص	ز	مناطق محددة الاستخدامات
ج	متجر للهدايا التذكارية والتراثية	ح	علامات ارشادية
د	مخيم بيئي	ط	خدمات امنية
هـ	رحلات منظمة	ي	خدمات طبية

21 بوجهة نظرك ضع علامة على الخطوات التي تراها مناسبة لتطوير السياحة البيئية

أ	توثيق التعاون بين الحكومة و المجتمع المدني والقطاع الخاص
ب	زيادة الوعي البيئي
ج	برامج للحفاظ على البيئة والتراث
هـ	ايجاد دور اكبر للمجتمع المدني والقطاع الخاص
و	وضع استراتيجيات لتنمية السياحة البيئية
ز	تطوير القوانين والانظمة التي تحمي البيئة و السياحة البيئية
ح	تطبيق مفهوم الادارة الحديثة
ط	دور أقوى للحكومة في الحفاظ على المناطق البيئية وتنميتها
ي	تشجيع دور المجتمع المحلي للاستفادة من مزايا السياحة البيئية

22 ما هي مقترحاتك لتطوير السياحة البيئية في المحافظة الجنوبية

Questionnaire 3

Questionnaire for Ecotourism in the Southern Governorate, Bahrain

Deanship of Scientific Research, University of Bahrain

Researcher: Nada Al khalili

This is a study for tourists and visitors who visit natural areas in the Southern Governorate in Bahrain.
The information in this interview is confidential. It will take just few minutes of your time.
Thank you in advance for helping in this survey, your opinion will be highly appreciated.

1 Questioner No. _____

2 Place of Interview _____

A. Visitor information (Please tick appropriate response)

3 Nationality _____

4 Gender: [A] Male [B] Female

5 Age group [A] less 18 [B] 18-35 [C] 36-50 [D] 51-65 [E] above 65

6 Status [A] Single [B] Married [C] Others

7 Education [A] less than high School [B] High School [C] University [D] Post Graduate

8 Occupation _____

9 Monthly income in BD
[A] less 400 [B] 400-800 [C] 801-1200 [D] 1201-1600 [E] 1601-more

B. Trip information (Please tick appropriate response)

10 Visiting natural areas in Southern Governorate in:
[A] camping season [B] Other seasons [C] all year

11 Best time to go? [A] Weekdays [B] Weekends and holidays

12 Type of trip [A] Individual [B] Family/friends [C] Organized tour

13 Have you visited any of the sites listed below in Southern Governorate?

A	Camping areas	D	Coastal Areas	G	Ancient sites
B	Tree of Life	E	Hunainiya valley	H	Oil Museum
C	Al Areen Park	F	Riffa Fort	I	Hawar Islands

14 What was your reasons for visiting these sites?

A	Horse riding	H	Bicycling
B	motor biking	I	4 Wheel drive
C	Camping	J	Sport activities
D	Picnicking	K	Parties
E	Fishing	L	Research
F	Special natural or cultural feature	M	Part of your tradition
G	Wildlife	N	Photography

15 Evaluatenatural natural areas in the Southern Governorate : 5=BEST / 1=WORST

	STATUS	5	4	3	2	1
A	Wildlife	5	4	3	2	1
B	Special natural or cultural feature	5	4	3	2	1
C	Environmental awareness of visitors	5	4	3	2	1
D	Public cleanliness	5	4	3	2	1
E	Safety and security	5	4	3	2	1
F	Public services	5	4	3	2	1
G	Visitor information centers	5	4	3	2	1
H	Information signs	5	4	3	2	1
I	Organized tours	5	4	3	2	1
J	Easy accessibility	5	4	3	2	1
K	Services provided by Southern Governorate	5	4	3	2	1

C. Opinions (Please tick appropriate response)

16 If you receive information on cultural and natural activities and tours would you attend?

☐ Yes ☐ No ☐ Don't Know

17 Do you support large tourism development projects in the Southern Governorate?

☐ Yes ☐ No ☐ Don't Know

18 The effect of large tourism development projects on the following:

Socially: ☐ Good ☐ Bad ☐ Don't Know

Economically: ☐ Good ☐ Bad ☐ Don't Know

Environmentally: ☐ Good ☐ Bad ☐ Don't Know

19 Do you support eco-tourism in Southern Governorate?

☐ Yes ☐ No ☐ Don't Know

20 In your opinion tick appropriate services needed to develop Eco-tourism

A	Information centers	F	Protected areas
B	Walking trials	G	Zoning areas according to activity
C	Souvenir shops & traditional crafts	H	Information signs
D	Eco-loge or eco-camp	I	Security services
E	organized tours	J	Medical services

21 In your opinion tick appropriate actions needed in order to develop Eco-tourism

A	Stronger cooperation between government, civil society and private sector
B	Increase public awareness campaigns
C	Develop cultural and nature conservation programmes
D	Stronger role to civil society and private sector
E	Strategies for ecotourism development
F	Develop legal framework to protect nature and ecotourism
G	Implement proper management
H	Stronger Government role in maintaining and developing natural areas
I	Benefiting local community through their involvement in ecotourism

22 Your suggestion to develop ecotourism in the Southern Governorate ?

الخلاصة

خلال السنوات الماضية نشطة مملكة البحرين في تطلعها لأن تصبح من المقاصد السياحية المعروفة في المنطقة، وذلك بدعم من الحكومة على أعلى مستويات اتخاذ القرار. و يعزز هذا التوجه بمختلف المعالم الطبيعية والتاريخية والثقافية والترفيهية والتعليمية الحديثة الموجودة في البلاد، وبشهرة كرم و ضيافة شعب البحرين.

ينظر هذا البحث في المسائل الاجتماعية و الاقتصادية واالبيئية ذات الصلة بالسياحة في البلاد وسبل تحقيق الاستدامة في قطاع السياحة. يدعم هذا المنظور بتفهم أفضل للسوق المتخصص للسياحة المعتمدة على الطبيعة، مع تركيز خاص على تطبيقاته في نطاق الدراسة.

تم استخدام طريقتين لجمع البيانات الأولية و ذلك من خلال المسح الميداني و استمارات الاستبيان. نتج عن ذلك تفهم أفضل للحالة الراهنة للمعالم الطبيعية والثقافية في منطقة الدراسة، مع وضع نموذج مقترح للسياحة البيئية في منطقة الدراسة. وقد تم تعزيز ذلك بتفهم أكثر للخصائص السكانية والدوافع وطبيعة أنشطة السواح في منطقة الدراسة، وتوقعاتهم تجاه تطوير هذا السوق المتخصص المهم في البلاد.