

CHAPTER TWO

TOURISM DEVELOPMENT AND COASTAL ENVIRONMENT

2.0. INTRODUCTION

This chapter discusses two terms that are important to the study: tourism development and the coastal environment. The first part reviews tourism growth as an economically integrated industry, and describes how tourism became one of the world's largest industries, bringing enormous wealth to host countries, and contributing to the economic growth of destination areas. The second part focuses on the environment; particularly the coastal environment that is recognized for its sensitivity to environmental disturbance, and is being subjected to major impacts from tourism development. The chapter also provides an overview of beach resort development, as a form of tourism accommodation within the coastal setting.

2.1. HISTORICAL TIME LINE OF TOURISM MOVEMENT

Tourism has been practiced in different forms throughout human history. Gartner (1996, pp.33-34) summarized the historical timeline of tourism movement and growth as the following [table 2-1]:

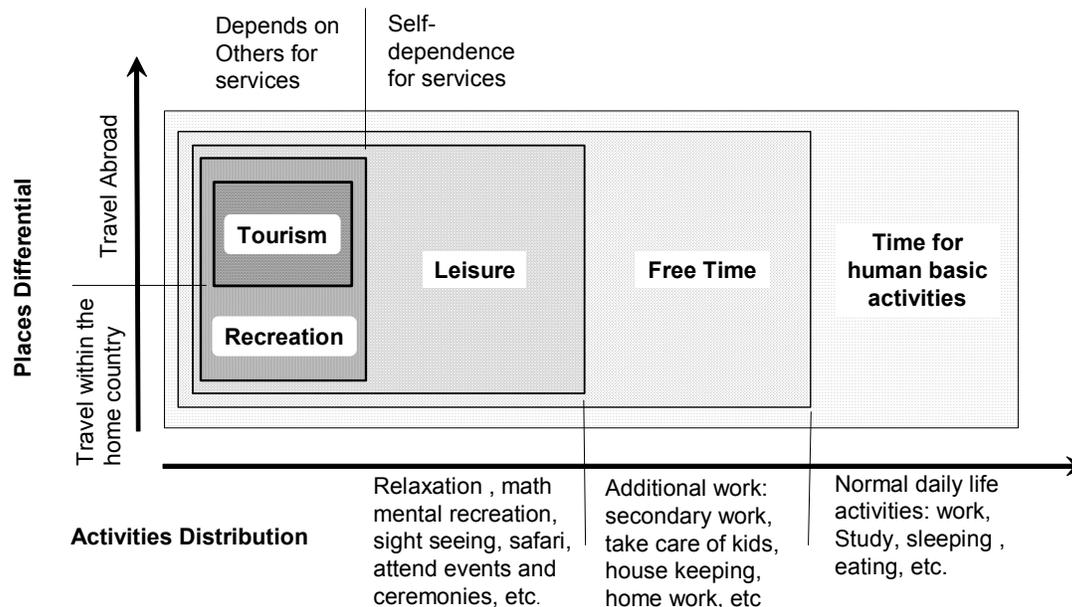
Table (2- 1): Historical Timeline of Tourism Movement

[8000 B.C.]	Agricultural development in the Middle East leads to formation of communities and a prerequisite for tourism.
[3000-1200 B.C.]	Pharaonic in Egypt built Pyramids, Sphinx, temples, and tombs that become major tourism attractions for later generations.
[776 B.C.]	First Olympiad; beginning of sport tourism.
[100 B.C.]	Birth of Christ. Roman expansion and civilization. Road network connects the empire and trade becomes a major motive for travel.
[400 A.D.]	European Dark Ages, travel was too dangerous. Pilgrimages were a major reason for travel.
[600-900 A.D.]	Xian in China becomes a major international trading center. Caravanserais serve as rest stops/hotels.
[1500s A.D.]	Renaissance period known for its art treasures, the attraction base for Grand Tour.

[1700-1825 A.D.]	Beginning of industrial revolution in Europe. Ships, rail, and air travel. Hotels, rental carriages, and restaurants flourish.
[1903 A. D.]	Mass production of automobiles begins. Wright brothers successfully fly a motor-powered plane.
[1914-1919 A.D.]	World War I leads to numerous technological advances. First scheduled air service between London and Paris.
[1939-1945 A.D.]	World War II. Major technological changes. Nuclear age. Dawn of mass tourism.
[1944 A.D.]	U.S. Federal Highway act begins development of world's largest infrastructure of roads, the backbone of the world's largest domestic tourism industry.
[1957-1969 A.D.]	Space Age begins with successful launch of Sputnik; Yuri Gagarin becomes first human to venture into space.
[1970 A.D.]	Jumbo jets arrive. Mass tourism begins.
[1980's A.D.]	Tourism impacts detailed. Mass tourism splinters slightly resulting in new (to some) forms of tourism called alternative forms of tourism (e.g. ecotourism, green tourism).
[1990s A. D.]	Information and Communication Age. Business travel vaults tourism into the world's largest industry.

Today, the increase of income and leisure time, early retirement, and advances in transportation contribute to the increased demand for tourism. Nowadays, tourism and recreation is part of the contemporary lifestyle for individuals and families. The European community estimated a spending of 7% of the household budget on tourism (European Community, 2000).

In fact, travel and tourism have become a basic human need. Figure (2-1) illustrates how human needs changed from performing basic daily works to the need for free time for relaxation, (“leisure”). With the increase of leisure time, people start to tour within their home country, (“recreation”), or to travel abroad with a full dependence on others for services (“tourism”).



[Source: after Ali, 1993; Hall and Page, 1999]

Figure (2- 1): Leisure, Recreation, and Tourism Definition

2.2. TOURISM DEFINITION

Tour/tourism is derived from a Hebrew word, Tora, which means to study, learn or search. Smith (1988) defined tourism as “...the aggregate of all businesses that directly provide goods and services to facilitate business, pleasure and leisure activities away from the home environment” (p.183).

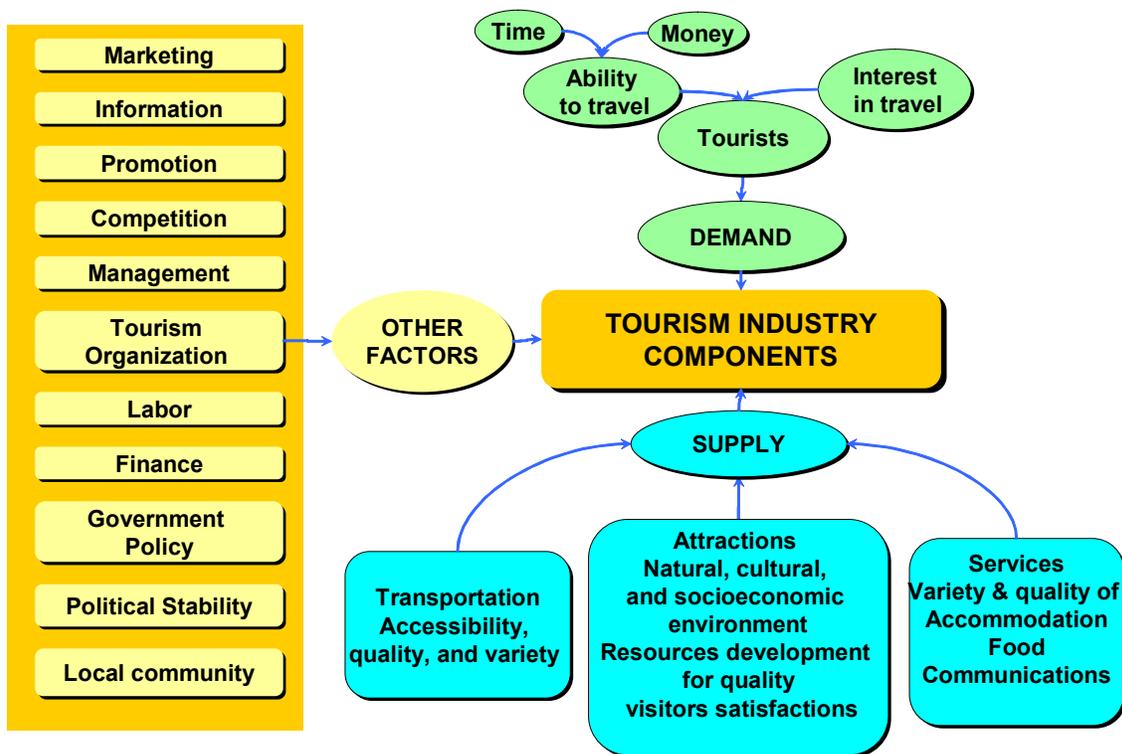
Based on this definition, the tourism industry would include: investors and developers; accommodation, transport, and tour operators; marketing and travel agents; attraction and entertainment facility operators; park providers and managers; souvenir suppliers; convention and meeting organizers; specialist retailers; and the labor force employed in these areas. Davidson (in Theobald 1995:20-26) contended that tourism may not be an industry at all, rather a collection of industries. The tourism system is dynamic in that component parts are

interdependent (i.e., any change in one element has effects on the others) (see Leiper 1995 for a systematic overview). This is especially true of the supply and demand components of the tourism industry as described below.

2.3. TOURISM SUPPLY AND DEMAND

In order to engage in design and planning policy for tourism in a sustainable manner it is necessary to have a better understanding of the supply and demand components of the tourism industry. Figure (2-2) below illustrates the main components of the tourism industry. The demand side represents tourist volume. The tourism industry cannot be developed or be successful without people who have both the desire and the ability to travel. The supply side provides the means to facilitate the travel and the stay of tourists including the attractions and activities that induce tourists to visit the area; transportation services that enable them to do so; accommodation and supporting services such as restaurants, retail shopping, banking and money exchange, medical care, public safety, and postal service; and infrastructure such as roads, airports, water supply, electric power, telecommunications, drainage, sewage and solid waste disposal systems.

Other factors have a great influence on tourism development including: finance and capital investments; availability of adequate trained workers; products competition and demand satisfaction; tour and travel operations; marketing programs, legislation and regulations, governmental policies, political stability, organization and management to identify tourism opportunities; and tourist information and promotion that ensures their successful functioning (Gunn, 1988; Inskip, 1988). More recently, the quality of the environment (i.e., degree of air, water, and noise pollution), in addition to safety and security, have become significant factors on the supply side.



[Source: after Inskeep, 1991]

Figure (2- 2): Tourism Industry Components

All the above components are part of the built environment and must be developed in a manner to sustain the industry. There is a great deal of interdependence among these components and they must be considered as a dynamic whole. All components of tourism must function in an integrated and interdependent way. Change in any one component can dramatically influence the others; even affect the whole tourism system. For example, if transportation costs or modes change, new attractions are built, new services are developed, or if new information and promotion are created, the development pattern will be influenced (Gunn, 1988). The principle of dynamic, not static, interaction is fundamental to the planning and management of tourism development (El-Halafawy, 1991). In response to that, Inskeep (1988) suggested seven steps to successful tourism planning. They included: (a) study preparation, (b) determination of objectives, (c) survey, (d) analysis and synthesis, (e) policy and plan formulation, (f) recommendations, and (g) implementation. Within each of the above steps sustainable tourism

principles must be considered and incorporated to avoid tourism developments reaching the declination stage. The following sections discuss tourism growth and development worldwide and then specifically in the US and Egypt.

2.4. TOURISM GROWTH AND DEVELOPMENT

2.4.1. A Global View

Every year a bigger portion of the world's population takes part in tourism activities; and for the majority of countries, tourism has developed as one of the most dynamic and fastest growing sectors of economy. To what extent does the advance of the tourism industry fully contribute to the economies of many countries? Since the 1960s, tourism has represented a large sector of income for many countries. For example, during the sixties, in Mexico, tourism revenue exceeded \$1billion¹, representing almost 55% of the Mexican export trades. In Yugoslavia, tourism income was reported as \$89 million, while in Austria tourism income of \$503 million helped to reduce the country's balance payment from \$160 million to \$25 million. In Spain, tourism income covered 68% of payment balance (Ragab, 1964). In the 1980s, Mathieson & Wall (1982) emphasized the role of tourism's contribution to the economic growth of several nations; in Austria tourism represented 7.4% of the total nation revenue; in Japan 5.1%, in Canada 5%, in Spain 3.2%, and in Switzerland 3%. In 1988, the tourism industry trades was 7% of the world goods, attracted 390 million tourists, created 74 million jobs, represented one third of developing countries trade goods (WTO Report, 1989).

Today, world tourism is measured by two terms: the International Tourist Arrivals (ITA) and the International Tourist Receipts (ITR). In 1997, the world ITA reached 613 million with an increase of 2.9% over 1996, and the ITR was \$448 billion with an increase of 2.7% over 1996. By 1999, the world ITA reached 664 million with an increase of 4.5% over the 1998, and the ITR rose by an estimated 3.1% in 1999 to reach \$455 billion. Tourism is often said to be the world's largest industry. It generates annual worldwide revenues of \$453 billion and employs 7% (or 1 in 15) of the world's workers. This signifies that worldwide there is a continued increase in

¹ All currency in this study refer to the US dollar. All percentages in the text and figures are rounded.

tourism demand and tourism expenditure to an average receipt per arrival of \$685 billion (WTO, 2000).

All the above numbers reveal the growth of tourism industry over time as an important sector for economic growth worldwide. They also illustrate how tourism revenue contributes to the balance payment and the total revenue to many countries.

The IUOTO (1979) summarized the main factors that lead to the fast growth of international tourism as the following: 1) the surplus of incomes; 2) the availability of vacation, breaks, holidays, and off work time; 3) the advance in the size, speed, cost, services, and quality of traffic and transportation technology; 4) the need for educational and culture exchange among nations; 5) the increase of travel agencies and travel programs; 6) the increase of marketing through media communication; 7) the improvement of banking, accessibility, and communication services; and 8) the major global economic, social, and political changes.

The growth of world tourism during the late 1990s is reflected in Figure (2-3). In 1999, the WTO estimated that the majority of travel was within Europe generating almost 400 million international tourist arrivals. The Americas were the second largest region with a volume of 123 million international tourist arrivals, followed by East Asia and the Pacific with 97 million arrivals. Furthermore, Africa received 26.9 million, the Middle East 17.8 million, and South Asia 5.7 million international tourists.

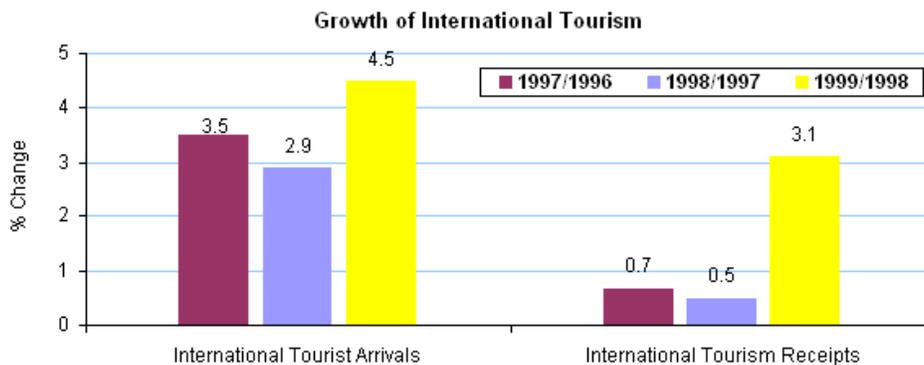


Figure (2- 3): Growth of International Tourism

[Source: WTO, 2000]

The growth of tourism worldwide can also be understood by examining regional trends (see Figure 2-4). In the 1998 WTO report on tourism growth, Africa showed a growth of 7.8% in arrivals nearly twice the world average; while the Americas growth of 2.4% was lower than the world average. In 1999, the East Asia and the Pacific reached a growth rate of 11.1% with a record of 97 million tourist arrivals. The highest growth reported (43%) was in Malaysia. Tourism to Europe grew by 2.7% in 1999 with some countries reporting much higher increases such as Spain (9.2%), Greece (9.9%), Netherlands (5.6%), and Ireland (7.4%).

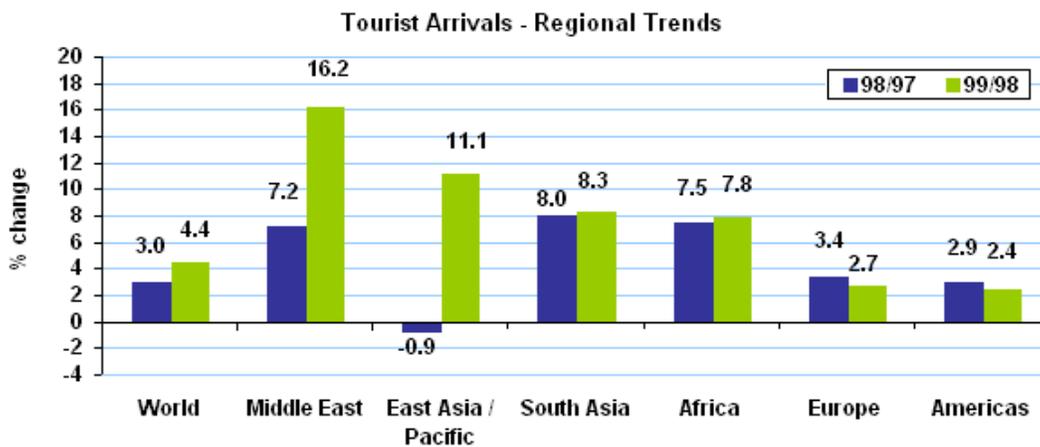


Figure (2- 4): Regional Tourist Arrivals

[Source: WTO, 1999]

The Middle East, one of the world's smallest regions, received nearly 18 million tourists in 1999, but it also had the fastest growth rate with arrivals up by 16 %. Egypt—which represents a quarter of this regional total—posted a spectacular growth rate of almost 40%, and a record number of tourist arrivals that far exceeds totals achieved in its top year of 1997. Libya registered an increase of 25%. Dubai, Lebanon, and Syria also fared well, with arrivals increasing by 14, 12 and 9 percent respectively. Tourism increased in the majority of countries in this region, and resulted in a rise of 8.3% over 1998 results. One must keep in mind that peace and political stability have a great influence on tourism growth. A recent example is the Kosovo crisis and instability in the Russian market in 1999 caused negative growth rates for destinations in Central and Eastern Europe such as Hungary (-14%), Poland (-4.4%) and the Czech Republic (-1.8%) (WTO, 1999).

When examining tourism growth within developed and developing countries, Alrobie (1987) emphasized that the majority of international tourism revenue (79.9%) goes to the developed countries of North America and Europe. Figure (2-5) below emphasizes the big gap of tourism demand and income between developed and developing countries. In terms of tourism cost, it is important to remember that tourism expenditure in developed countries represent only 5-8% of family income (IUOTO, 1979), while this cost is a much larger percentage of family income and not affordable to the majority of people in developing countries.

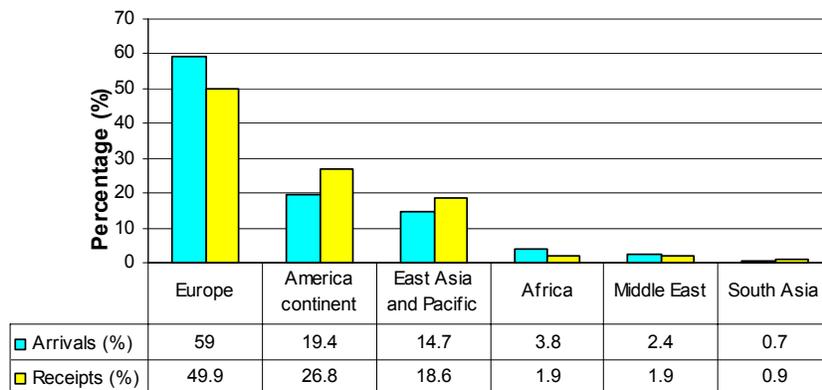


Figure (2- 5): Tourism Arrivals and Receipts by Regions, 1997

[Source: WTO 1997]

In 1995, twenty nations (17 European, USA, Canada, and Japan) accounted for 81.8% of all tourist expenditures. Five nations (USA, Japan, Germany, the UK and France) accounted for over half of all tourists spending (WTO, 1997). Figure (2-6) illustrates the world's top 10 countries in tourism arrivals and receipts as reported in the 1997 WTO report. By 1997, the top 10 countries received 316 million tourists representing more than the half (52 %) of world tourism industry. The top 20 countries received 439 tourists (72 %) with revenue of \$320 billion. France received the most tourists (66 million), while the US received the largest tourism revenue of 75 billion dollars. Growth in tourist arrivals to the America was lower than the world average at 2.5% in 1999, although total international arrivals still increased by 3 million from 1998. Two-

thirds of the increase went to the United States. In 1998, the USA noticed a strong tourism growth (WTO Report, 2000).

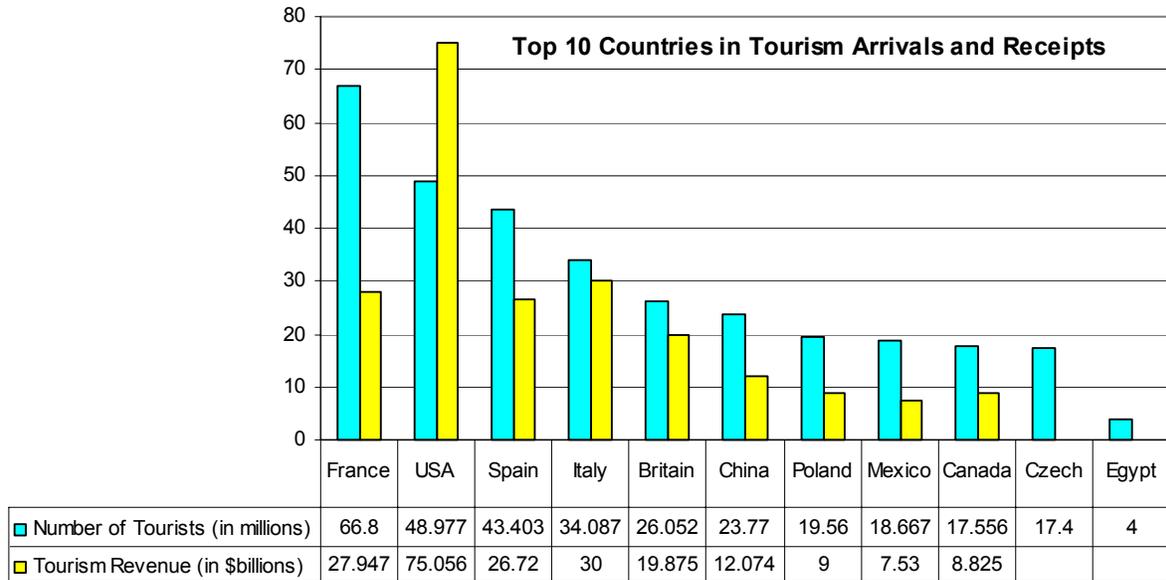


Figure (2- 6): Top 10 Countries in Tourism Arrivals and Receipts, 1997

[Source: WTO, 1997]

In 1997, Africa received 23 million tourists and a revenue increase of 4.4%. While the continental American increase in arrivals did not exceed 2%, the revenue increased by 6.1% during the same time. In Europe the arrivals increased by 3.9%, but the revenue increase did not exceed 0.9%. The Middle East reached the highest rate of arrivals increase (10.7%), but realized only 4.4% increase in income. Egypt, despite its timeless attractions for tourists (myths and mysteries, cradle of an ancient civilization, richness of natural and historical resources) still realizes a very low tourism demand compared to other countries. This points to questions about the tourism development pattern in Egypt and how it responds to social, economic, and environmental sustainability goals.

One of the major negative economic factors in the tourism industry is the “leakage” of tourism revenue to business outside a tourism destination with a little left to locals, Figure (2-7). A study of tourism 'leakage' in Thailand estimated that 70% of all money spent by tourists ended

up leaving Thailand (via foreign-owned tour operators, airlines, hotels, imported drinks and food, etc). Estimates for other developing countries range from 80% in the Caribbean to 40% in India (Thai Institute for Development and Administration, 1990).

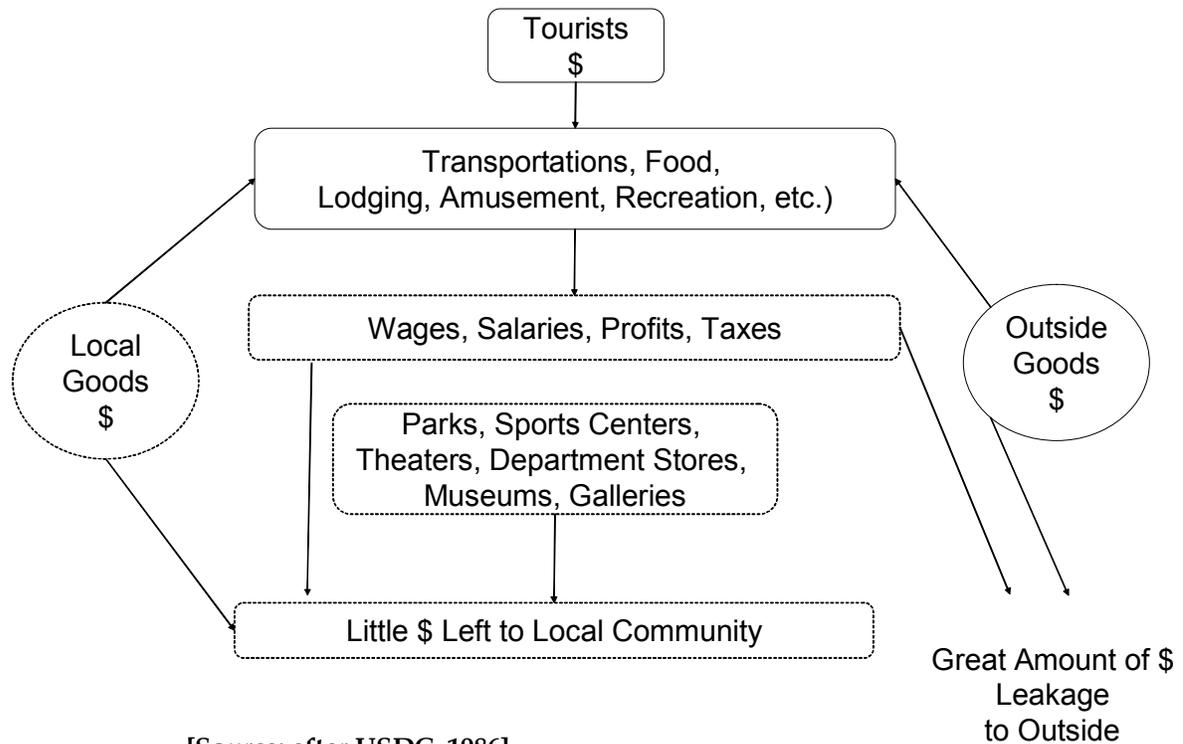


Figure (2- 7): Tourism Spending Flows through the Economy

The World Tourism Organization predicts that by 2010, the number of tourists will reach one billion per year, and the worldwide tourism industry will be worth 1.5 trillion - four times what it generates today (WTO, 2000). A quarter of all tourist arrivals will be in developing countries. Total world tourist arrivals grew from 69 million in 1960 to 592 million in 1996, and increase of nearly 800% (WTO, 2000).

In terms of tourism types, Atwa (1993) found that the traditional historical tourism demand represents only 10% of the global tourism industry while recreational tourism reaches 67% of the tourists' demand. Ali (1993) emphasized the growth of recreational tourism demand (60%) while business tourism represented 10% of growth. Other tourist concerns such as sports

tourism (fishing, skiing, wind surfing, diving, boating, safari), conference attendance, religious pilgrimages, cultural tourism, study, and health treatments each represented 10% or less of the overall tourism demands.

These statistics reveal two phenomena: 1) the continuous growth of tourism demand worldwide and the importance of recreational tourism growth, representing the majority of tourism demand and associated development needs; and 2) the great contribution of tourism to the economy of many countries. Unfortunately, the damage caused by development to the natural environment will be expensive. The natural features that may have initially attracted people to the coastal destinations are lost or diminished, thus, the challenge of assimilating increasing numbers of people along the coast while minimizing the potential environmental degradation from development becomes considerable" (Knickerbrocker, 1993). This research, in response to the growing demand and the associated environmental and social problems and that may result in negative impacts, examines coastal recreational tourism and the associated beach resort development.

2.4.2. Tourism Growth in the U.S.²

Over the last ten years, travel and tourism has evolved from an emerging sector to an established leader in a modern services economy. Growing from a \$26 billion in 1986 (\$42 billion in 2001 currency value) to a \$90 billion in 1996 (\$123 billion in 2001 currency value), travel and tourism's export contributions to the U.S. economy have grown nearly 250%. In that time, travel and tourism has taken its place as the number one service export, producing a trade surplus every year since 1989. With just under \$21(\$29 billion in 2001 currency value) billion in inbound passenger fare receipts in 1996, visitor trip expenditures injected almost \$70 billion (\$95 billion in 2001 currency value) directly into the US economy. Each international visitor to the US represents an average export value of \$1,500 (\$2,000 in 2001 currency value) with 28% of their expenditures going to lodging, 18% to food service, 10% to entertainment, 30% to retail trade and 13% to local transportation. In 1996, a record 46.5 million international visitors made

² The currency mentioned in this section of the study (Tourism Growth in the U.S.) refers to US dollar values as of July 2001 [Source: U.S. Department of Labor (DOL). (2001). Bureau of Labor Statistics, Consumer Price Index, Annual Percent Changes From 1913 to Present, All Urban Consumers - (CPI-U) Washington, D.C.] Available on Line: <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt>

America their destination of choice, up 7% over 1995. What these statistics demonstrate is that international travel to the US is an export just like the sale of US agricultural products, automobiles or consumer goods and that strength plays over into US GDP. As a result, inbound tourism has an impact on U.S. job creation, supporting over 1 million American jobs in 1996. Over the past decade, the US has held the position as the number one travel and tourism destination for total receipts generated worldwide and the second or third destination for number of visitor arrivals. Forecasts indicate an annual growth rate of 3-4% between 1998 and 2001. It is important to note that a 1% upwards shift in the existing international travel market could generate an additional \$600 million of revenue to support thousands of jobs in the US (Doggett, 2001).

In 2000, travel to the US by overseas visitors (which includes all countries except Canada and Mexico) increased to a record 26.0 million, or up 6% over 1999. Among the top 20 states/territories 17 of the destinations saw increases in their number of visitors. Likewise, 15 of the top 20 cities saw increases in their overseas visitation. A record 51 million international travelers visited the US in 2000. This represents 5% growth rate in arrivals to the US.

The well-known US coastal tourism destinations, California and Florida, show great influxes of both tourist arrivals and tourism revenue. In 2000, California maintained its top state visited ranking by overseas travelers (6.4 million), again surpassing Florida which hosted over 6.0 million visitors. California and Florida have traded places over the years as the top destination. Florida was the top state visited in 1992, 1993, 1995, and 1998.

According to the preliminary world international arrivals estimates for 2000 reported by the World Tourism Organization (WTO, 2000), the US was the second most popular destination worldwide, behind only France, who generated 74.5 million visitors last year. Overseas arrivals grew 6%, totaling 25.9 million visitors, a growth rate double that of last year. The overseas arrivals, for the second year standing, comprised 51% of the total international arrivals to the US. Europe comprised the largest market representing half of the arrivals pie. Asia comprised nearly 30% of all arrivals to the US and Latin America represented almost 20%. These numbers reveals the leading position of the US in the tourism demand as well as its numerous supplies.

2.4.3. Tourism Growth in Egypt

Over five thousands years ago, cruises were organized and conducted from Egypt. Probably the first journey ever made for purposes of peace and tourism was made by Queen Hatshepsut to the lands of Punt (Figure 2-8), believed to be on the east coast of Africa, in 1480 B.C.E. Descriptions of this tour have been recorded on the walls of the temple of Deit El Bahari at Luxor, Egypt (Goeldner,et al, 2000, pp.45).

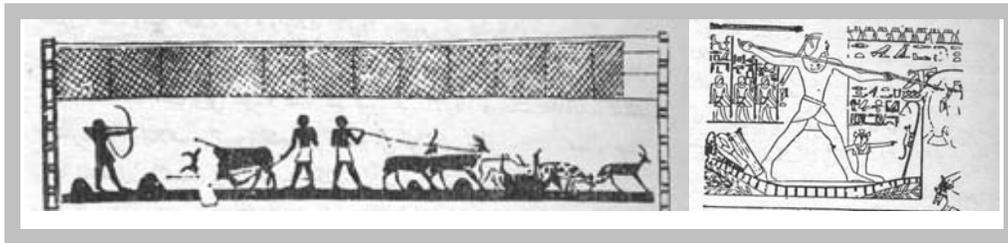


Figure (2- 8): Queen Hatshepsut Tours to the Lands of Punt

Beginning in 2700 B.C.E. the pharaohs began to take advantage of the abundance of good building stone in the Nile valley to build their tombs, the Sphinx, the three great pyramids. These great outdoor wonders began attracting large numbers as early as 1200 to 1200 B.C.E. A second recognizable tourist trait was the urge to acquire souvenirs from Sudan. Early Egyptians also purchased specialties abroad for their friends and relatives. The Egyptians met to celebrate festivals not once a year but a number of times (Goeldner, et al., 2000). So tourism began in Egypt.

Today, the Egyptian government encourages tourism for several reasons: (a) to increase revenue from foreign currency; (b) to improve payment balances; (c) to provide job opportunities; and (d) to improve the individuals' income and life quality standards for its local people. Figure (2-9) illustrates the growth of tourism in Egypt from 1986 to 1997.

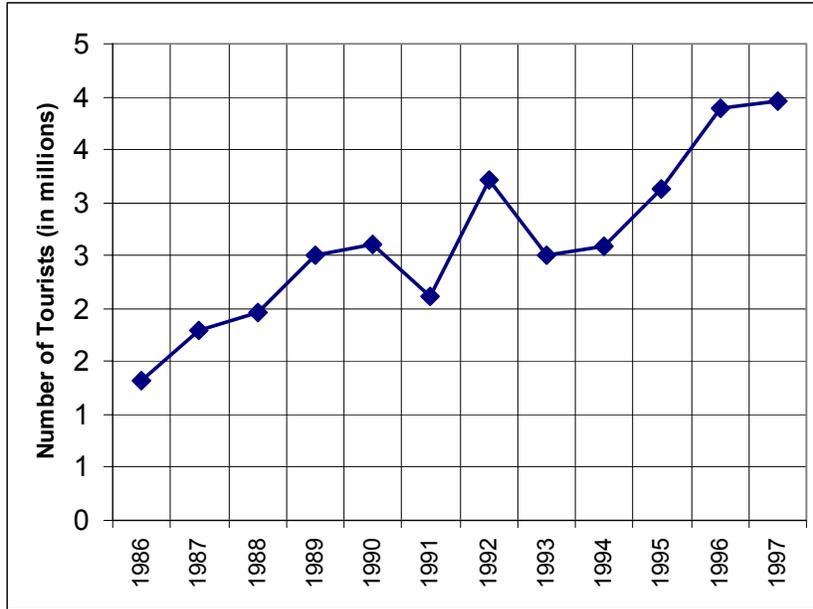


Figure (2- 9): Tourism Development in Egypt 1986-1997

For the future planning for tourism in Egypt, several international and local agencies have conducted studies of expected tourism growth in Egypt through 2010 (see Figure 2-10).

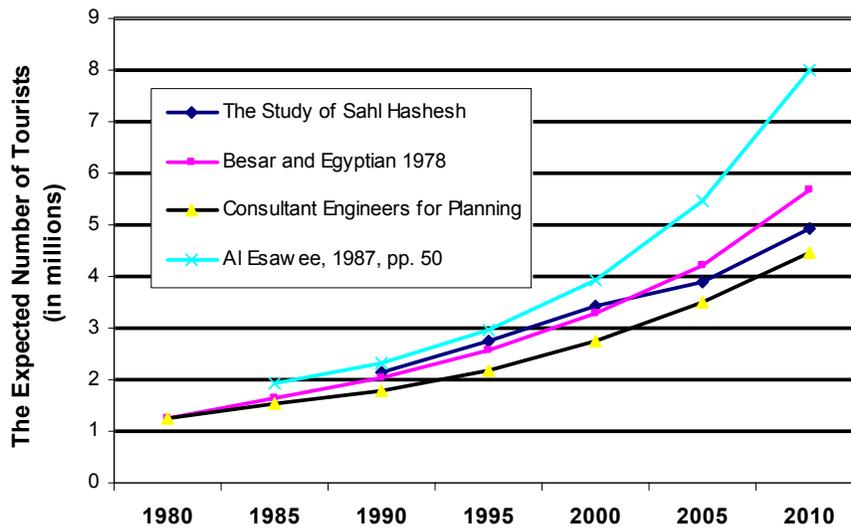


Figure (2- 10): Expected Tourism Growth in Egypt
 [Source: after Imam, 1991, p. 28]

Tourism becomes a major hope for employment growth in Egypt, as it is one of the few remaining growth industries where demand is certain to increase in the future. There is a growing awareness that coastal zones are attractive to tourists and the belief that tourism can make a valuable contribution to the local economy. In 1992, the approximate estimated numbers of tourist arrivals to Egypt was 2.5 million tourists, spending 17.5 million nights with an average 7 nights per tourist and an expenditure of \$100 per night.

To meet the increase of demand, the Egyptian government encourages the increase of supply services, facilities, and accommodations. Millar (1992) estimated the existing volume of tourism facilities and services was 50,000 rooms, 80,000 flight seats, 12,500 direct employees, and 37,500 indirect employees. At that time, the estimated average tourist expenditure per day in Egypt generally divided into hotel room (\$35), food (\$35), transportation (\$20), shopping (\$25) and entertainment (\$10). The Egyptian tourism development plan for 1992-1997 predicted 43 million nights for tourists. This anticipated volume required 110,000 rooms based on an occupancy rate of 300 days /room, but the 1992 capacity was only 56,000 existing rooms plus 17,000 rooms was under construction, leaving a shortage of 37,000 rooms. In terms of tourism labor, the international rate of direct labor (1.5 employees /room) meant a need of 60,000 direct employees, and 120,000 indirect employees. There was also the need to absorb the transportation needs of 4.8 million tourists based on the rate of 30 passengers /seat. The estimated needs were 160,000 seats, but the volume of seats at the end of 1992-97 plans was for only 72,000 seats, clarifying the need for an extra 88,000 seats (MR, 1976, p.212). These predicted needs for tourism accommodation and associated facilities and services are continuing today to provide great opportunity to reshape the traditional pattern of development to a more sustainable form that can improve the quality of the coastal development.

In Egypt, the annual domestic recreational coastal tourism reaches 4 to 4.5 million that represents 7.5-8% of the total population. The majority of the population (76.7%) frequently visit Alexandria and the North Coast resorts. Almost 60% of visitors were low income,⁷ followed by 30% from the middle class, and 10% high-income visitors [see Imam, 1991]. These findings

⁷ Average family annual income in Egypt is classified as following: 1) low income < \$ 1000; 2) medium income \$1000-10,000; and 3) high income > 10,000 [for more details refer to Imam, 1991].

point to the matter of cost, availability of transportation, and the high level of accessibility to public beaches.

These reported data reveal two points. 1) There is an increased demand for both international tourists and domestic tourists in Egypt; and 2) Domestic tourism destinations need to be more available and accessible to domestic Egyptian tourists. There must be concern by the Egyptian government to increase tourism supply services and facilities that are well-planned and better designed on a sustainable basis with minimum impact to local natural and cultural environments.

However, governments' interests and attitudes dominate the policy response to tourism development. Tourism cannot develop without an active role and cooperation from all official governmental agencies. For example, in visa policy, foreign exchange requirements, and import regulation, opening new areas for mass tourism, infrastructure, roads, airports, electricity (Wood, 1994).

2.5. TOURISM DEVELOPMENT IN COASTAL ZONES

Coastal tourism can be defined as tourism brought to bear on the coastal environment and its natural and cultural resources. Most coastal tourism takes place along the shore and in the water immediately adjacent to the shoreline. The most frequently enjoyed active recreational pursuits are undoubtedly the various swimming, sunbathing, playing, relaxing, boating and water sport related leisure and recreational activities (Miller & Ditton, 1986). In the context of conservation and sustainable development of the coastal zone, key management issues of coastal environments become one of managing the amenity interactions of the range of these uses (Kenchington, 1993). These activities will all have some type of impact, to the point that design, planning, and management are needed to prevent or minimize damage. Sustainable development strives to ensure that natural and cultural systems are in balance with each other and within themselves; therefore life on earth remains viable and continues functioning indefinitely (Colby, 1991; Gore, 1992; Oelschlaeger, 1992b; McDonough, 1993; Odum, 1993; Lyle, 1994; Thayer, 1994 and others).

Much of the past research on coastal tourism has focused on such impacts. For example, Edwards (1987) described the nature and extent of ecological impacts on coasts in England and Wales, and provided a discussion of management techniques in light of projected increases in tourism activities. Rosier (1986), Kozlowski (1988) and Walker (1991) described environmental limitations of a small island in the Great Barrier Reef in Australia and devised a methodology for identifying areas, development levels, and time periods to which various forms of tourism activities should be confined, so as not to exceed these limitations. Miossec (1988) describes physical consequences of tourist development -erosion in front of embankments, destruction of dunes, siltation of marinas - along the Atlantic coast of France. Similarly, Cabanne (1992), also in France, discusses the pressure that tourism development puts on space and the natural environment and also on traditional local trades, such as fishing.

Social systems can also be disrupted when tourism gives evidence of, for example, increased crime, dislocation, racism, and stratification in coastal communities (Miller & Ditton, 1986). This may also involve changes in the quality of life for local populations (see for example; Bosselman, 1978; de Kadt, 1979; Gee, 1984; Gunn, 1979; Smith, 1977). Coastal tourism is both a cause and a consequence of congestion and contributes to multiple use conflicts (e.g. resort development vs. retention of residential housing; or retail/restaurant trade vs. traditional water-dependent commerce) and allocation conflicts (e.g. commercial vs. recreational vs. subsistence fishing interests) (Miller & Ditton, 1986). A majority of the literature on coastal tourism has focused on the development of management plans, policies and strategies for both attracting and governing tourism in the coastal zone. Tourism growth and development globally, and in Egypt specifically must often overcome many obstacles.

2.6. TOURISM DEVELOPMENT OBSTACLES

It is important that sustainable tourism development not be viewed as a short-term economic benefit, but rather as an effort to preserve the environmental quality of the built environment in order for it to be sustained over time. In order to meet the economic feasibility of projects, avoid environmental impacts and establish a more stable settlement, development efforts must overcome certain obstacles. Some of major obstacles of tourism development in

Egypt, gathered from the field study of beach resort sites and tourism agencies visits by the researcher, can be summarized as the following:

- lack of people's knowledge and awareness on environmental issues
- shortage of the needed tourism infrastructure and services
- limited access to information and communication
- political instability in a region
- lack of enforced environmental legislation, and
- marketing problems

One of the major problems of coastal tourism is the damage caused by developers as well as users to the natural resources of an area. Such devastating destruction in some environmentally- sensitive zones will lead to a fast decline in the tourism industry at local destinations and at the national level. Plog (1974) stated that tourism development carries with it the potential to lose the quality of the destination areas. In 1994, Hawkins and Roberts evaluated the impact of massive coastal tourism on the Red Sea coral reefs around the established resorts of Hurghada and Sharm-el-Sheikh. Tourism development had already caused substantial damage to inshore reefs near Hurghada due to infilling, sedimentation and over-fishing. Elsewhere, new constructions were also beginning to modify reef habitats. Damage to Sharm-el-Sheikh's reefs has been mainly caused by the direct effects of diving and snorkeling.

Although, the past levels of recreational use appeared to be sustainable, the massive expansion planned throughout the region placed the long-term future of reefs in doubt. Unless the pace of tourist development in coastal zones was significantly reduced, the carrying capacity of coral reefs seemed sure to be exceeded with widespread reef degradation the likely result (Hawkins & Roberts 1994). This examples supports the urgent need to incorporate sustainability principles into tourism development and to control tourism growth based on the capacity of a site to absorb this development with little or no negative impacts. This is particularly true of growth and development in coastal zones.

2.7. THE ENVIRONMENT

Singh & Singh (1999) examined how tourism and environment are linked historically, providing the basis for the current approach to sustainable tourism. Nature-based tourism,

conservation-supporting tourism, environmentally-educated tourism, and sustainability-run tourism provide restrictive definitions of tourism development that rely heavily on natural environments. Good environmental management is vital to both the economic and ecological sustainability of tourism.

The term “coastal zones” encompasses the marine environment and a loosely defined hunter land under maritime influences. Coastal zone is characterized by a variety of natural features, and flora and fauna, representing both the terrestrial and the aquatic ecosystems. In the past, coastal areas were viewed as having unlimited capacity to support human activities, nowadays, these activities have marked effects on the coastal zone resulting in cleaning of vegetation, draining of wet lands, exploiting of fish and wildlife, and dumping wastes into the water bodies (Singh & Singh, 1999).

2.8. COASTAL ZONE GROWTH AND DEVELOPMENT

Coastal zones have long been recognized as favored places for recreational tourism activities. It is important to recognize that while coastal zones⁸ are only part of our global environment, they are particularly sensitive to environmental disturbances, and are being subjected to intensive development pressures. For example, increased temperatures caused by global warming may increase sea level, therefore negatively affecting man-made coastal development. The global importance of the coastal zones, in terms of both ecological and economic value, was recognized at the United Nations Earth Summit (UNES) in 1992.

In 1994, the World Coast Conference (WCC) reported that 60% of the world’s population lives in a zone within 60 kilometers (37 mile) of the coastline. This percentage is expected to increase to 75% by the year 2025. In addition, the socio-economic development in coastal zones is more rapid than elsewhere. The annual coastal population growth rate is estimated to be 2.4%, while the global average growth did not exceed 1.7% within the last two decades (World Resources Institutes, 1992). This is evidenced by the rapid growth of the number of coastal mega-cities. Sixteen out of the 23 mega-cities in the world are coastal cities (WCC, 1994).

⁸ The World Coast Conference (1994) identified “coastal zone” as the area within 60 kilometers of the coastline. In Egypt, the ICZP (1996) defined coastal zone as the area within 30km from the shoreline in general, and as the area between the shoreline and the 200-contourline for the Northern Coast.

Coastal zones provide ideal facilities for development in communication and transportation, housing and recreation, and agricultural and industrial areas. The increase of development and population density along coastal zones has resulted in the loss of natural resources, and has caused degradation to the quality of the air, land, water, and overall ecological system. The Caribbean, the Atlantic and Pacific coasts, and the shoreline of the Mediterranean and the Red Sea become frequent demanded tourism destination worldwide. Increasing desirability and accessibility of coastal zones as places to live, work, and recreate has greatly intensified these conflicts.

Coastal environments, with their native inhabitants, are often depicted as paradises attracting international tourists (Gartner, 1996). Coastal resorts provide mainly leisure and recreation opportunities, such as swimming and sunbathing. They mainly rely on the natural resources base of the area for recreational opportunities. Beach resorts⁹ are provided as a common form of tourism accommodation along coastlines. Many resorts are self-contained destinations providing accommodations, food, services, shopping, and recreation opportunities.

In economic terms, coastal tourism, in some cases, contributes the highest share of some nations' income (Shackleford, 1995), and provides significant economic revenue that might be used in the protection of the fragile and endangered ecosystems (Hudman, 1980). Another specific benefit resulting from tourism development in coastal zones is increased public accessibility to coastal resources. On the other hand, coastal development often results in major land transformation (Gartner, 1996). Recreation tourism development and the associated built structures and infrastructure is one form of intensive coastal development that can negatively impact natural quality of the environment. Tourism development in coastal zones has had considerable impact on natural and man-made environments. The potential negative impacts from tourism can cause rapid depreciation to the environment. Natural resources present in the coastal zone need to be well managed and preserved for the enjoyment of the present and future generations.

⁹ Beach resorts are short-term destinations that provide an assortment of recreational activities, as well as lodging, dining, and entertainment services. They are aimed at supplying an infinite variety of recreational experiences and include a host of vacation / business destinations, varying from small to large scale that are comprehensively planned. They are established around a primary natural recreational attraction, a factor which has traditionally made them popular (ULI, 1981, pp.1).

Natural processes along the shoreline are complex. The relationship between on-shore activities and adjacent water related environments are often not well understood and not clearly determined. Citizens and decision-makers are eager to attract economic development related to tourism, yet do not realize the full impact of land use and land development decisions. Conflicts often arise between development needs and natural resources conservation. The comprehensive nature of sustainable tourism development¹⁰ requires careful control of site planning, physical design, and management of resorts in a manner that enhances resource conservation, respects local traditions, and integrates tourism development with other economic sectors (El-Halafyawy, 1991).

2.8.1. Coastal Zones in Egypt

The Mediterranean and the Red sea in Egypt comprise coastlines of more than 3,000 km. The intensive development of the Egyptian coastal zone has caused incremental pressure and impacts. There is a desire in Egypt to manage coastal areas, the ecological and the economical valuable resources, in an integrated manner, so that the next generation can also utilize and develop in a sustainable way. In response to this global trend, the Egyptian government passed an environmental law (No 4/1994). In 1996, the Egyptian government through the Egyptian Environmental Affairs Agency (EEAA) with the cooperation of the governments of Denmark and Netherlands initiated an Integrated Coastal Zone Management (ICZM) plan on a national level to provide guidelines for coastal management in which the EEAA is responsible to coordinate national ICZM activities. The Document discusses the issues from a global level that put the Egyptian coastal problems and its challenges in a broader perspective. Then, it focuses on the Egyptian context, dealing with specific concerns, problems, objectives, and institutional setting. The ICZM plan is a set of actions providing a basis for the development of the activities in coastal zones and sustainable use of coastal resources including issues such as: shoreline erosion and flooding; irrational land use; water pollution; deterioration of natural resources and habitats. Managing complex systems such as coastal systems, requires an integrated approach capable of bringing together the multiple, interwoven, overlapping interests in a coordinated and

¹⁰ “Sustainable Tourism Development” (STD) “is development designed to (a) improve life quality of the host community; (b) provide a high quality of experience for visitors; and (c) maintain the quality of the environment on which both the host community and the visitor depend” (Wall, 1982).

rational manner, directed towards sustainable use and development. The Egyptian ICZM program that was developed and implemented depends very much on specific national perspectives and local conditions.

The proposed ICZM plan required an adequate implementation structure, covering the national, regional, and local levels in terms of the institutional, legislative, financial, and human resources needs. The tasks of the ICZM are summarized below.

- To coordinate all coastal activities in an integrated form that includes the EIA studies.
- To make sure that all land use plans and development takes into account contingency arrangements.
- To find harmony between the proposed development and carrying capacity of the ecosystem, working towards sustainable use of available resources.
- To ensure active participation in drafting and preparing the ICZM plan.
- To ensure efficient implementation of commitments to the regional and international conventions concerning the protection of the coastal environment.
- To approve programs and plans for restoration and rehabilitation of the coastal ecosystem.
- To coordinate and specify mandates for different authorities in the coastal zone.
- To approve national arrangements related to the protection of the environment.
- To study and evaluate major projects to be executed, especially those which lead to conflict of interest
- To look at any activities related to ICZM.

The institutions involved in ICZM are numerous and operate at different levels (national, regional, and local), but the existing interrelationships between institutions and the levels are diverse and difficult to discern from each other. ICZM's main goal at the national level is to bring together the knowledge of Egyptian staff and international experience to identify the relevant issues and tasks for the ICZM in Egypt, such as: a) evaluation of protective construction along the Coast, a feasibility study of shoreline planning, a feasibility study on GIS capacity in Egypt, inventory of existing land use practices and land ownership, preliminary environmental impact assessment (EIA), evaluation of present and future water quality, evaluation of the effects of tourism and recreational activities, and identification of "black spots" areas on the coastlines.

This coastal management plan shows great effort has been initiated by the Egyptian government to provide extensive institutional guidelines for the protection of the environment. However, it does not provide a plan for sustainability implementation or a link to a development capacity control tool. It also does not provide designers/planners as well as other decision-

makers with a practical tool for implementation; rather it simply provides the EIA evaluation process. This research attempts to fill this gap by providing a measurement tool that links sustainability indicators with both quantitative and qualitative carrying capacities control, giving decision-makers a broader and deeper view of potential impacts from development at a particular destination from the beginning of development. This study is a complementary addition to what has been done by the EEAA and the ICZM.

2.8.2. Coastal Zones in the U.S.

The American coastal zones have population densities five times the total average. The 1990 census shows that 50% of U.S. citizens live within 75km of a coast and this number is predicted to increase to 75% by the year 2010. The coastal states have had dramatic population increases since 1980, the largest being in the major tourism states of Florida and California (Williams et al., 1990). In terms of development, Culliton (1992) found that 50% of construction in the US between 1970 and 1989 occurred in coastal areas. The growth of coastal populations requires additional facilities for accommodation, transportation, recreation, water supply and waste disposal resulting in pollution increases and severe negative impacts on the environment as well as on recreation activities.

American concern about environmental protection does not go far, it essentially includes the same instructional procedures as Egypt, however, it started 25 years earlier with the National Environmental Policy Act of 1969. The purposes of this Act were: a) to declare a national policy which encourages productive and enjoyable harmony between man and his environment; b) to promote efforts which prevents or eliminates damage to the environment and biosphere and stimulate the health and welfare of man; and c) to enrich the understanding of the ecological systems and natural resources importance.

These actions don't extend much beyond what the Egyptian government established recently in 1996. Both emphasize the institutional base for the environmental protection and do not consider the need for sustainable action or providing a practical tool of implementation that can be utilized by designers and planners. Again, this research attempts to meet this demand by providing a conceptual framework that links to the institutional protection principles.

2.9. TOURISM IMPACTS ON COASTAL ZONE

The negative impact of coastal tourism to the environment of the coastal areas may include: (Stachowitsch, 1992; Hall & Page, 1999)

- Destruction of the coastal ecosystem to provide infrastructure;
- Damage to coral reefs and sea grass beds from the anchoring of pleasure boats;
- Disturbance of wildlife habitats and refuges;
- Littering of beaches; and
- Depletion of fish stocks by recreational anglers.

Beach resorts have evolved within the natural context of the coastal environment, and are particularly dependent on the available natural resources and the quality of the environment. From this perspective, it is important that the design and planning of beach resorts be tied to a sustainable form of development in terms of what is to be built, where it should be located, and how to build it.

2.10. BEACH RESORTS

2.10.1. A Global View

One of the primary destinations for tourists in the coastal zone is a beach resort, which can be defined as geographic areas offering a variety of facilities, services and activities which are oriented toward seaside recreation for the accommodation, use, and enjoyment of visitors [adapted by Smith (1991) from Metelka (1978)]. Beach resorts can be classified into 3 groups: a) based on tourist type; public, private and membership, ethnical (citizenship) resorts; b) according to activities; recreational, treatment, sports, historical, exhibits and conferences; and c) according to site characteristics such as beach, desert, rural, and mountain areas (Atwa, 1993).

The evolution of beach resorts as well as their decline has merited considerable attention in the literature (Smith, 1991, 1992a) observed that while beach resort development begins well, as the resort matures, resort ambience deteriorates, pollution levels climb, negative social impacts increase, and questions of the distribution of economic benefits arise. This observation closely parallels concepts of tourist carrying capacities and tourism life-cycles discussed in chapter 3 (Butler, 1980). Various environmental factors have to be considered in developing the

coast for tourism (Jolliffe & Patman, 1986). In some cases, poor understanding of the coastal environment has led to the use of elaborate and expensive structures (Bird, 1985). Jackson (1986) attributed the beach erosion problem of some beach hotels in the Caribbean islands to the failure to establish a suitable setback from the beach and to the extraction of beach sand for construction. More specifically, Baines (1977) cited various issues related to beach resort sites in Fiji: a) the need for a "setback line" in accordance with the coastal type; b) the developers' unawareness of catastrophic events of low and unpredictable frequency, e.g., storms; and c) the disposal of sewage. On the east coast of Malaysia, one particular resort has been seriously threatened by coastal erosion (Jamaluddin, 1982) and a few more faced the same problem.

One important issue pertaining to coastal resorts has to do with the concept of carrying capacity. Sowman (1987) argues that in coastal areas which have been identified as suitable for resort development, it is important to ascertain the appropriate level of use that can be sustained by the environmental resources of the area, yet he also points out that relatively little progress has been made toward any practical application of this kind.

The conservation of both natural and man-made environments entails the incorporation of nature into the design, planning, and provision of unique and diverse beaches, public places, and biking, walking, and jogging trails. It incorporates wildlife into the setting providing ecological benefits to the area while providing educational opportunities. Resort developments have been opposed on environmental grounds, and are subjected to strict environmental controls. From this perspective, it is important that the design and planning of beach resorts be tied to sustainable development and sustainable measures.

2.10.2. Coastal Recreation Planning Patterns

The traditional pattern of design and planning mainly focuses on the determination of building densities, heights, openings, spacing, orientation, and forms [Chapter 5 will include examples of these patterns]. A sustainable design model (SDM), such as the one developed in this study, provides a broader perspective of design and planning that includes the efficient use of natural resources, the preservation of culture and local identity, in addition to minimizing wastes. SDM considers the globalization of the environmental problems, compatibility with local identity, integration of built environment with its surrounding nature, and provides flexibility in

space and time. SDM looks clearly at the many impacts that development can have on the environment. Many of these impacts are described in the following pages.

Coastal resort planning requires a buffer sandy beach zone determined by a planning law. In Egypt, sometimes this zone is very narrow and close to the shoreline. Planning laws determine that zones with narrow depths up to 75m, especially those with dense white sand, may be maintained to provide a natural beauty to the site. Zones with 50-200m depth from the shoreline may be used for agriculture, in spite of its limited production of date trees since it is essential to preserve it for the natural beauty of the place. Zones with depths ranging from 250-550m may not follow the rules designated by the law, rather the shortage of the depth may be substituted by increasing the capacity or using the land located to the south of the highway as an extension (PUD, 1978). Descriptions of four Egyptian buffer zones along the Alexandria shoreline are provided below as examples.

Zone A: located on the Alexandria/Matroh highway (km34 to km52) with an area of 1,615 hectares (4,048 acres) has a capacity of 62,000 tourists and includes nine tourist centers and four public beaches for daily visitors. Visitors demand beach recreational activities in addition to horseback riding, golf courses and sport yards. The planning law assigned a buffer sand zone with a depth of 150m (non-built zone) the depth from the shore line to the highway forcing linear development.

Zone B: located on the Alexandria/Matroh highway (km52-km64) with an area of 674 hectares (1,685 acres) has a capacity for 52,000 tourists and daily visitors to the recreational beaches and water sports. The buffer sand zone is a narrow depth of only 400m from the highway to the shoreline.

Zone C: located on the Alexandria/Matroh highway (km64-km80) with an area of 1,588 hectares (3,970 acres) includes 10 tourist and daily visitor centers with a capacity of 56,000 tourists, and suitable for health treatment centers and zones with multi-service centers.

Zone D: located on the Alexandria/Matroh highway (km80-km96) with an area of 1,244 hectares (3,115 acres) to accommodate 31,000 tourists for water sports.

2.11. TOURISM MAJOR IMPACTS

Environmental damage to one part of the world may result in a major impact or damage to other distant regions. For example, spillage from oil tankers or damage to oil extraction plants could cause serious damage to an ecosystem in a distance coastal zone. Measuring the impact of tourism development on three levels (local, regional, and global) requires one to expand design considerations to recognizing even distant effects. Outlined below is a list of wide-range tourism impacts on the environment, culture, and economy of a destination. These impacts constitute a warning against mistakes made in the past due to improper decision-making in the planning and design process, or poorly managed development. Such impacts become all the more significant when activities are concentrated in time and space. The proposed sustainability model in this research will allow various stakeholders to examine a variety of impacts from a local and more distant view in an effort to make better development decisions. It assists stakeholders in becoming more proactive to environmental issues and concerns, rather than reacting “after the fact.” A better understanding of major tourism impacts on the local economic order, social structure, and natural environment of a tourism destination assists in utilizing positive impacts, avoiding the negative ones, and approaching a better solution for these problems.

2.11.1. Economic Impacts

Tourism can play a significant role in the economy of host destinations in areas such as foreign exchange, government revenue (direct and indirect taxation of tourists), revival of the local industries and crafts, improved living standards, and stimulation of employment. However, tourism's influences can be both positive and negative. It is also quite possible for tourism to provide benefits in one area, such as employment, while creating negative effects in other areas, such as inflation problems, government revenue (for example, when significant tax advantages are offered as an incentive to developers), and by the costs incurred in attracting and servicing the infrastructure needs of the tourism industry. The effects of tourism can be obvious and easy to quantify, and difficult to isolate from other economic influences. Whether the impact is positive, and benefits the local community, or negative to the economic disadvantage of the host, depends on a number of internal and external factors. Table (2-2) below highlights the potential

negative and positive impacts of tourism as reported in the extant literature. These economic impacts are reflected as indicators in the sustainability model developed in this research.

Table (2- 2): Economic Impacts of Tourism

POTENTIAL NEGATIVE ECONOMIC IMPACTS	POTENTIAL POSITIVE ECONOMIC IMPACTS
<ul style="list-style-type: none"> ▪ Competition in the labor market and land prices ▪ Loss of economic benefits if outsiders own and manage tourist facilities ▪ Decreasing foreign exchange when tourism uses imported goods and services instead of taking advantage of locally available resources ▪ Concentrating tourism in only a few areas of a country or region without corresponding economic development in other places can create economic distortions ▪ Inflated local prices of lands, goods, and services ▪ Loss and degradation of resources ▪ Increased tendency to import ▪ Seasonality of production ▪ Creation of other external costs (i.e. maintenance costs) 	<ul style="list-style-type: none"> ▪ Public investments for restoration and protection of cultural resources ▪ Increased national foreign exchange earnings ▪ Enhanced government revenue ▪ Created jobs ▪ Improved family incomes ▪ Support for direct and indirect costs of conservation and maintenance of tourism destination ▪ Influence of tourism on other economic sectors ▪ Encouragement of entrepreneurial activity

[Sources: Inskeep, 1988; Priestley, 1990; Smith, 1992; Thomas, 1990]

2.11.2. Social Impacts

Tourism begins with an examination of the concept of culture as the major determinant of the lifestyles that characterize different societies. The social and cultural impacts of tourism can assist in community and individual enrichment, as well as be aware of the potential problems. Tourism affects the host community in a number of ways. Tourism can change the way people live, think and work. It can change the social and cultural values of the people involved. When tourism achieves its most noble social and cultural goals, it helps to develop the sense of a global community. People share their cultures, their festivals, and their special experiences. Through this they learn to respect the opinions and lifestyles of others. When tourism does not achieve such ideals it can leave in its wake social disorder, crime, degradation, a loss of community values, and a sense of either inferiority or superiority - both of which can be dangerous.

For example, People engaging in recreational activities need a minimum amount of physical space in order to pursue their activity in an unconstrained manner. Interference with these functional needs for space due to excessive density will cause physical crowding to be experienced (Choi, et al., 1976; Stokols, 1976). Heberlein (1977) refers to these conditions as representing the "facilities carrying capacity," which when exceeded, places pressure on people to modify physically their normal behavior in order to accommodate the presence of others. This places constraints on usual behavior patterns, producing the experience of physical crowding.

The issue of crowding, or perceived crowding, in tourism development and environment protection research, has been one of the most frequently studied aspects of outdoor recreation (Shelby & Heberlein, 1986; Westover, 1989). Crowding has been defined simply as a negative evaluation of a certain density or numbers of encounters (Schmidt & Keating, 1979). Most theorists recognize a difference between density and crowding (Gramann, 1982). Density is a descriptive term that refers to the number of people per unit area. It is measured by counting the number of people and measuring the space they occupy, and it can be determined objectively. Crowding, on the other hand, is a negative evaluation of density; it involves a value judgment that the specified number is too many (Shelby, 1989).

Table (2-3) below highlights the positive and negatives social impacts of tourism as reported in the extant literature. The social impacts outlined below are reflected in the sustainability model presented the research model.

Table (2- 3): Social Impacts of Tourism

POTENTIAL NEGATIVE SOCIAL IMPACTS	POTENTIAL POSITIVE SOCIAL IMPACTS
<ul style="list-style-type: none"> ▪ Overcrowding of amenity features and transportation, shopping, and community facilities to the extent that residents cannot conveniently use them ▪ Over commercialization and loss of authenticity of traditional customs, arts, and crafts to suit tourists demands ▪ Increased “demonstration effect” on residents, especially young people, who may begin to imitate the behavior, dress, and lifestyle patterns of tourists ▪ Preemption of beaches and other tourist areas for exclusive tourist use ▪ Increased misunderstandings and conflict between residents and tourists because of differences in languages, customs, and value systems ▪ Exacerbation of problems of drugs, crime and prostitution 	<ul style="list-style-type: none"> ▪ Increased awareness of local people to the need to protect resources ▪ ▪ Develop renewed local pride in their culture ▪ ▪ Improved cross-cultural exchanges between tourists and local population ▪ ▪ Gaining mutual understanding and respect ▪ Overcoming ideological and religious barriers ▪ ▪ Improved transportation facilities and other infrastructure for tourism that residents can also utilize

[Sources: Inskeep, 1988; Priestley, 1990; Smith, 1992; Thomas, 1990]

2.11.3. Cultural Impacts

Cultural impacts are important in our consideration of communities and tourists. The term ‘culture’ is frequently used to identify aspects of language, religion, foods, festivals and so on. Culture is such a pervasive part of human life that almost no human thought and behavior is free from its influence. The need for understanding and planning to avoid or ameliorate the negative cultural impacts of tourism needs to be emphasized. Sociologists regard culture as the patterns of learned behavior that are transmitted to each generation of a society. In fact, almost everything we believe and do as individuals reflects a degree of cultural conditioning. Cultures are durable, but they are not static. As communication has become easier and faster, cultures have become modified by adopting some characteristics from other cultures. It is argued that once a society comes into contact with another society, change is inevitable. One concern is the extent to which tourism is responsible for such change. It is recognized that change is inevitable when there is intercultural contact. The perception of tourism as a negative influence can lead to hostility between a host community and the operators or visitors. Some have argued that tourism

is a form of neo-colonialism, in which poorer countries are exploited for the benefit of the world's more affluent people. Table (2-4) below reflects the negative and positive cultural impacts of tourism as presented in the current literature. Cultural impacts are reflected as important indicators of sustainability in the model presented in this study.

Table (2- 4): Cultural Impacts of Tourism

POTENTIAL NEGATIVE CULTURAL IMPACTS	POTENTIAL POSITIVE CULTURAL IMPACTS
<ul style="list-style-type: none"> ▪ Loss of artifacts by unscrupulous sales people ▪ Enhancement of museums with greater interest in cultural resources ▪ Changes in the cultural landscape (e.g. Loss of traditional agriculture or a move away from traditional dwellings) ▪ Changes in the vocabulary of languages (e.g. The inclusion of western words and phrases in language) ▪ Pressures on religious places and shrines as a result of increased visitor numbers ▪ Decline in religious practices ▪ Changes to the traditional economic order (e.g. A move away from self-sufficiency to dependency) ▪ Dominance of leisure time by western television ▪ Changes in family structures and values ▪ Adoption of servile attitudes towards tourists ▪ Increase in prostitution ▪ Increase in criminality 	<ul style="list-style-type: none"> ▪ Increasing the demand for local, traditional crafts ▪ Increased demand for traditional drama, music and dance ▪ Renaissance of traditional festivals and other cultural and artistic events ▪ Increased awareness of, and demand for, traditional literary forms ▪ The growth of minority languages ▪ Increased importance of religious festivals and pilgrimages ▪ Increased variety of food

[Sources: Inskip, 1988; Priestley, 1990; Smith, 1992; Thomas, 1990]

2.11.4. Environmental Impacts

On a global scale, many environmentally destructive developments are practiced worldwide. As a result, our environment is undergoing significant degradation. A 1993 U.S. Department of Interior report revealed the extent of our earth's conditions and a list of major indicators caused by these devastating practices (p. 3-4):

- Increase in global warming
- A growing hole in the ozone layer causing a gradual global air depletion

- A 1.5-4.5 Celsius degree rise in temperature is estimated by the year 2050
- A 4.7-7.1 feet rise in sea level is projected by the year 2100
- 11 million hectares of tropical forests are destroyed every year
- 31 million hectares of forest cover in industrial countries have been damaged
- 17 million hectares of tree coverage are lost each year by air pollution and acid rain
- 26 billion tons of topsoil are lost in excess of new soil formation annually
- Six million hectares of new desert are formed annually by land mismanagement
- Thousands of lakes in the industrial north are biologically dead; thousands more are dying
- 140 plant and animal species become extinct daily
- 20% of all plant and animal species may disappear over the next 20 years.

These indicators provide strong evidence of a global environmental crisis and the urgent need to replace the traditional pattern of development with more sustainable approaches. Global warming, growing hole in the ozone layer, increase in sea level, in addition to the degradation of natural resources are greatly affect the future of human being and threaten life basic needs. These issues point to the urgent need for remodeling the traditional planning and design standards and the patterns of coastal resort development, aiming for a sustainable approach to development. This need is echoed by the 1992 Earth Summit which was held to create an international action plan balancing the human need for development and environmental conservation.

The environmental impacts of coastal tourism developments result from two different types of tourist activity. First, the activities and associated development provided to accommodate tourist demand, and second, the access points for tourists (i.e. transoceanic travel). For example, the large number of people attracted to coastal resorts generates great amounts of consumption and waste. Tourists in coastal resorts use large amounts of fresh water, approximately six to ten times that of the local population, for bathing, refreshing, cooling, or recreation (i.e. golf). Excessive consumption of local resources increases the expense of providing fresh water from large-scale desalinization plants, and can exclude other forms of industrial activity from developing (Gartner, 1996). The use of salt water in septic systems prevents adequate biological breakdown of waste, and when discharged into a marine environment, may cause detrimental impacts on marine life (Mathieson & Wall, 1982). Also, it may leach pollutants into the fresh water aquifers or the closely located ground water surfaces. Some early resorts did not even bother to treat sewage, choosing instead to dump it directly into

the natural waters, resulting in pollution of the swimming water and causing health problems for swimmers.

Impacts on animal life are also a concern. For example, tourism facility construction may destroy sea turtle nesting sites and excessive human pressure may reduce success in prime nesting areas. Over-fishing certain species to satisfy tourists' desires may cause some species to increase and others to decline. Resulting is the difficulty to predict the extent of the environmental damage to an ecosystem (Gartner, 1996). Table (2-5) below shows the variety of potential negative and positive environmental impacts caused by tourism development as noted in the recent extant literature. Environmental impacts are considered in the development of the sustainability model in this study, helping to measure the carrying capacity of a destination.

Table (2- 5): Environmental Impacts of Tourism

POTENTIAL NEGATIVE ENVIRONMENTAL IMPACTS	POTENTIAL POSITIVE ENVIRONMENTAL IMPACTS
<ul style="list-style-type: none"> ▪ Increased pollution ▪ Degradation of architectural style ▪ Loss of natural landscape ▪ Destruction of flora and fauna ▪ Increased congestion (overloading of tourist amenities and infrastructure) ▪ Loss of habitat areas and forest land due to urban development ▪ Decline in biodiversity of species, ecosystems and interspecies variation as a result of losses in habitat areas ▪ Increased coastal erosion as a result of a rise in sea levels ▪ Increased quantities of waste water ▪ Change in character of built environment ▪ Overload of infrastructure 	<ul style="list-style-type: none"> ▪ Revival of historic and cultural heritage ▪ Generation of government revenues for improvement of community facilities and services ▪ Maintaining usage of natural resources ▪ Beautification ▪ Re-use of disused buildings ▪ Restoration of derelict buildings ▪ New architectural styles

[Sources: Inskeep, 1988; Priestley, 1990; Smith, 1992; Thomas, 1990]

In spite of the positive economic outcomes from tourism growth and facilities development, many negative social and environmental negative impacts reach well beyond the

acceptable limits. Economic benefits should be utilized to mitigate negative outcomes to the social and natural structure of the environment. This research addresses the issue of sustainable development through three approaches including the economic, social, and environmental aspects of development. These approaches will be discussed in detail in Chapter 3.

2.12. CHAPTER SUMMARY

The chapter has provided a review of the literature on tourism development with specific reference to the coastal environment and beach resort development. The literature review has shown the importance of tourism to the economies of the United States and Egypt; the environmental sensitivity of coastal zones; and how poorly planned tourism development may cause major impacts. This points out the need for non-traditional approaches to tourism development. Meanwhile, the current beach resort development patterns and high levels of crowdedness clearly indicate the need for additional research directly related to carrying capacity controls of beach areas to support both recreational activities and sustainable development. This applies not only to existing beach resorts, but also to currently undeveloped and future developments, since coastal zones face increasing pressure of population and development growth as more people seek to live, work and recreate in coastal zones worldwide.

The next chapter introduces two concepts, sustainability and carrying capacity, followed by an extensive discussion of the three approaches to the three major problems facing tourism development. The environmental approach to sustainability discusses the ecotourism option for sustainable tourism development in the natural coastal settings. The economic approach to sustainability discusses the product lifecycle concept. The social approach discusses host/guest community interactions at tourism destinations.