

Strengths and weaknesses in the assessment of sustainable tourism: a case study of the Nabq protected area in Egypt

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Abstract

Talks over the past decade have been concerned with achieving a more sustainable form of tourism; however, the problem is that the largest sector of tourism is that of mass tourism, which continues to be the worst form of tourism in terms of sustainability. Previous studies have focused on defining the term 'sustainable tourism'. However, these studies have not been able to agree on a single definition for the term, which has dozens of definitions. This research aims to discuss and analyze the concept of 'sustainable mass tourism' and its effects on the Nabq protected area. In addition, this research aims to focus on mass tourism in terms of three separate aspects for its development, which are: economic sustainability, social sustainability and environmental sustainability. Each of these aspects will be discussed separately. By dividing the concept into three different parts, each part will be studied so as to relate to or isolate from each other to determine the safest and most successful path to be used by developers of mass tourism with the aim of applying the results of this research to the Nabq protected area.

Keywords: sustainable tourism, mass tourism, sustainability of mass tourism, economic sustainability, social sustainability, environmental sustainability, Nabq protected area.

1 Introduction

A number of research concepts concerning sustainable development, sustainable tourism and the development of sustainable tourism are examined in this paper. It is important to begin by pointing out the definition of 'sustainable



development', which is 'a development that meets the needs of the present without compromising the ability of future generations to meet their own needs [1]. After the publication of this definition in 1987, discussion about the concept of sustainability began and the general debate on sustainability covered three main areas, namely: economic, social and environmental sustainability. In 1992, the Rio Declaration [2] concluded the discussion that began in 1987 by the Brundtland Commission. Tourism was initially included in the general debate on sustainability; however, it evolved over the past two decades and assumed a space of its own. Researchers had initially focused on sustainable development, but later turned their focus towards sustainable tourism and the development of sustainable tourism, both of whose definitions can be found here.

The term 'sustainable tourism' focuses on a product and/or service that aims to attract tourists, while the term 'development of sustainable tourism' is concerned with incorporating the development of tourism in the region to make it sustainable; thus bringing about a broader definition of development. 'Sustainable development' is therefore discussed on a broader scale in the tourism industry [3].

Over the past two decades, debates focused on how to achieve a more balanced approach in the overall development of tourism. The main conflict continues between tourism and the natural environment [4]. Since the 1980s, the debate has focused on the positive and negative effects of tourism on touristic areas, and how the economic, social and environmental impacts of tourism depend on the size of the touristic area.

Tourism often has a significant impact on the gross domestic product (GDP) – of any country – and the flow of foreign exchange, which gives precedence to the economic factor over the other factors. Tourism also has significant effects on both culture and the environment. The endurance of touristic sites and their ability to accommodate increasing numbers of tourists has become an important matter in recent years. It is, therefore, important that tourism developers, government and non-government agencies and organizations, as well as individuals that benefit from tourism and the tourists themselves be more responsible, because in the future mass tourism will become a major influential factor. It will also lead to an increase in demand to visit and enjoy nature as well as other cultural and social experiences, which will result in creating additional touristic destinations, and which also result in increasing both the positive and the negative effects on the environment.

The purpose of this introduction is to discuss and analyze the evolution of the concept of 'sustainable mass tourism' from the perspective of the different concepts that both affect and get affected by it.

2 The concepts of sustainability and sustainable development

As a concept, sustainability can be associated with all types of tourism. The problem, however, lies in the method for using or applying this 'sustainability'. While researches argue that 'sustainable development' is now an established



term, adapting and implementing it are not often successful. The concept of 'sustainable development' consists of two contradictory parts. The first part is concerned with growth (movement), while the second part that is concerned with maintaining the status quo (steadiness) is not clear due to the various definitions used in different contexts. For this reason, it is unlikely that in the future there will be single explanation for the concept of sustainable development, which should be divided into two separate terms to provide an equation:

$$\text{Sustainable Development} = \text{Development} + \text{Sustainability} [5].$$

Researchers have tried to define the concepts of 'sustainable tourism' and 'mass tourism development' over the past decade with reference to their origins in the Brundtland report of 1987 in achieving sustainable development [6].

Accordingly, sustainable development studies have evolved and focused on three separate aspects within the definition, namely: economic, social and environmental sustainable development. In the application of sustainable tourism development, studies have found a contradiction between the three aspects of sustainability, which continue to be a challenge for researchers. How can there be an economic development without both an environmental and a social development in touristic sites? [6]. C. Hunter suggests that sustainable tourism means maximizing economic, social and environmental benefits in tourism while reducing costs at the same time, and with the need to find a balance between the three aspects without giving priority to the economic aspect over the others. In addition to maximizing profits, tourism developers need to address their environmental responsibilities. Where developers prefer mass tourism in order to achieve high returns and low costs, tourists prefer their own perspective of productivity which is to enjoy the social and cultural aspects of their destinations. So, the question remains: how can tourists and tourism developers find a balance between their different goals?

3 Sustainable tourism

Sustainable tourism is a positive approach to bring together the different parts of the tourism industry to include tourists, the environment and development. This is considered a long-term approach to plan for the quality of both natural and human resources. Therefore, sustainable tourism must include, through long-term development-planning, the various groups of stakeholders concerned when we discuss tourism, the environment, urbanization and the local community in tourist destinations. And because 'sustainability' entails environment protection, it is, therefore, important to maintain a balanced view of this concept by not limiting the growth of tourism, but by dealing with it along with tourists, the environment and the local host community [7]. Since the first issue of sustainability is the quality of the product or service provided, tourism can be better sustained and maintained through partnerships with local communities in tourist destinations.



3.1 Concept of sustainable tourism

The concept of sustainable tourism is seen as a new subject and is formulated in four approaches [8]. It is believed that mass tourism and sustainable tourism are polar opposites, and that the first is negative while the second is positive.

- Sustainable tourism, ranging from weakness and strength, results in very weak economic growth and technical innovation, but is also strong in protecting the resources of the site.
- The direction of sustainable tourism should include all types of tourism as well as working to improve them. Recognizing this shows the enormity of the problem and extent of mass tourism.
- An arguable point asks if all kinds of tourism should be sustainable.

The principle of sustainable tourism is subject to the process of rapid development, but developers are not keeping pace with the mandates of this concept. The reason is that developers are ready to apply this concept only when it serves their benefit by increasing their revenues and improving their public relations and public image; sometimes it is part of their marketing strategy. For example, in areas where water is scarce and where energy is deficient, developers invest in energy-saving and water-reduction systems. Developers view sustainability as a means of:

- Saving money.
- Having good public relations and maintaining a suitable public image to show that their companies come bearing good intentions. This image helps developers to construct buildings that are environmentally unfriendly and harmful to touristic sites without expecting the public or local community to object.
- Marketing because it can be a tool to attract tourists.

3.2 Sustainable tourism as an ideology

Applying sustainable development on tourism is discussed through three techniques:

1. Technique based on resources and focuses on the need to protect nature (environmental approach).
2. Technique based on activity and focuses on the need for the tourism industry as a means to acquire resources (economic approach).
3. Technique based on community traditions and focuses on the empowerment of different groups of people in tourism (social approach).

These techniques represent the advantages and disadvantages of the process of sustainable tourism. Since the late 1980s, rapid growth in the tourism industry has led to increased demand for more sustainable tourism, especially when it comes to mass tourism.

The development of sustainable tourism can be summarized in two key approaches:



- The first believes that environmentally sustainable tourism is a harmless economic activity. It focuses on tourism as a part of a broader policy for sustainable development.
- The second sees sustainable tourism as a tool for the development of tourism, and that the economic factor for the tourist destination is the most important factor in order to preserve the natural resources. This is the developers' point of view [8].

4 Sustainable mass tourism

The tourism industry differs from other industries in three aspects:

1. It must bring touristic activity for the tourist destination.
2. The tourist is the participant who plays an active role in production and consumption.
3. Tourist destinations include various groups who compete to attract tourists looking for entertainment. Generally, touristic programs are fixed when it comes to mass tourism. Developers look for short term gains and profits without long term planning when it comes to tourist destinations.

4.1 Sustainable development and mass tourism

Sustainable development for sustainable tourism is a four-stage process [8] Identifying and establishing the concept of sustainable tourism.

1. Determining the conditions required to achieve it.
2. Developing criteria for measuring its progress.
3. Developing a set of techniques for maintaining sustainable tourism in many destinations that are subject to growth and to the environmental effects of mass tourism.

4.2 Effects of mass tourism

Tourist destinations all over the world go through different phases, beginning with exploration and early development and ending with recession; because each destination has a limit for growth thus resulting in recession after that growth limit is reached.

After reaching recession, tourist destinations can be changed through development by improving infrastructure, marketing, or production of domestic goods and other services. Developing tourist destinations results in generating more money and provides tourists with a sense of improvement at their respective destinations; it also provides more growth compared to the phase before development [5]. This should be implemented in Egyptian tourist destinations so that we can achieve the sustainable development of mass tourism and achieve the target of the Ministry of Tourism in having a sustainable and well-maintained tourism industry by increasing the number of hotel rooms thus increasing the generated income as well as providing more job opportunities.



The goals to be achieved by the year 2017 include attracting 14 million tourists and increasing the number of tourist nights to 140 million nights, in addition to having 240,000 hotel rooms. This would generate around 12 billion dollars as income from the tourism industry and would provide around 1.2 million jobs.

5 Applying the concept of sustainable and collective tourism in Egypt

There was, and still is, a conflict between the three elements that make up the concept of sustainability; a conflict that is difficult to overcome. There is, often, a need for economic development of the tourist destination as local communities want to work in tourism to increase their income and improve their standard of living. There should many projects that positively affect the environment; such projects are seen in Egypt in: South Sinai, Sharm El-Sheikh, and Nabq protected area.

5.1 Identifying and defining the study area of the Nabq protected area

The Nabq protected area is situated at the extreme southern part of the Sinai Peninsula on the Gulf of Aqaba. It covers an area of about 600 km² (with around 440 km² on land and around 130 km² in the water). It is 35 km north of Sharm El-Sheikh. It also covers an area of 3-5 km of deep coral reefs from the east passing through Om Adawy Valley. The Nabq protected area was declared a multi-purpose nature reserve in 1992 by the Egyptian Prime Minister's decree no. 1511 of 1992, amended by the Prime Minister's decree no. 33 of 1996. The Nabq protected area features various and magnificent ecosystems and habitats, the most important of which are the dunes located at the entrance to the Valley of Kid as well as the largest gathering of plant mangroves (Avesenaa Marina) on the Gulf of Aqaba. There are also other types of habitats in the mountainous areas of the reserve where conditions allow plants to grow. The area also contains 134 protected species of plants including 86 long-lived species. All desert areas are fragile and vehicles are banned from most areas except specific tracks. Figure 1 shows the Nabq protected area, Sinai, Gulf of Aqaba.

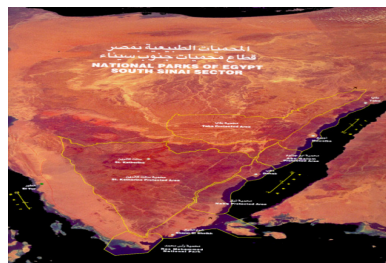


Figure 1: Nabq protected area, Sinai, Gulf of Aqaba.

5.2 Resources for tourist attractions in protected areas

- Tourism depends on the natural resources in the region with around 2 million tourists visiting the South Sinai governorate annually. Around 13,600 tourists visited the Nabq protected area in 2010 (93% of that figure represented various foreign nationalities while only 7% were Egyptian).
- The Maria Schroeder shipwreck lies at a 24-meter-depth and is used as a dive site in an area called 'Al Gharkana' (the Sunken Ship) across from the fishermen's village. The Maria Schroeder was originally passing through Aqaba on its way to Germany when it sank in the forest of Nabq in the Red Sea in 1956.
- This site has attracted many foreign grants to preserve its natural resources.
- In late 2010, the protected area was used as a safe beach for tourists for swimming after shark attacks plagued the beaches of Sharm El-Sheikh.

5.3 Sustainable tourism and its application in Egypt in the Nabq protected area

As the number of tourists coming to Sharm El-Sheikh continues to grow, there is a persistent need to increase the number of hotel rooms to accommodate this rise in tourists. In 1985, there were 1500 hotel rooms. In 2010, the total number of hotel rooms surged to 49,500 rooms (according to the Tourism Development Authority, 2010). This shows the rapid growth in tourism which is looked at as mass tourism, and which cannot be tolerated by the environment.

The development of Sharm El-Sheikh began in a linear fashion from Umm El Sid Hill through Naama Bay towards Shark Bay, Ras Nasrani (which harbors the city's airport) to the protected area of Nabq instead of growing to the west of the city in the direction of the hills to minimize the cost of the infrastructure. This type of linear development has affected and continues to affect the southern boundary of the Nabq protected area.



Figure 2: The buildings over the southern boundary of the protected area Nabq.

The social conditions of the local population have given rise to many problems due to the increase in population, which rose from 54,806 inhabitants in 1996 to 149,335 inhabitants in 2006, according to the Central Agency for Public Mobilization and Statistics (CAPMAS). This rise came due to high migration rates to the city and the demographics of the community. In addition, the indigenous population working in environment-related professions such as

fishing and grazing began searching for work in the field of tourism as touristic activities have various economic benefits. An example is shown in Fig. 3 after the fishermen abandoned the Fishermen's Village Park.



Figure 3: The Fishermen's Village Park after it was abandoned by the fishermen.

The city of Sharm El-Sheikh has a high income per capita, making it have the highest standard of living in all cities in the area and amongst the top paid areas in the Arab Republic of Egypt. This feature has economically benefited the city alone [9].

An analysis of tourism developers in different areas in Egypt and a study of the opinion of J. Saarinen have indicated that tourism developers are always interested in the sustainability aspect which often affects other aspects, for example:

- **Egypt: Red Sea Governorate – City of Hurghada**

Tourism developers are interested in environmental factors that attract tourists and cause them to revisit these destinations. Coral reefs have been eroded due to either building over them or neglecting them, in addition to the increased number of visitors from 1985 to 2010. This rise in tourists has also resulted in a demand for more hotel rooms. However, as a result of coral reef erosion, many tourists have changed their destination and began going to places such as Marsa Alam, which lies in the south of the city of Hurghada. This shift in tourist destination has resulted in a decline in tourists and accordingly in a drop in revenues. Tourism developers need to work on improving the environment in the hope of bringing back economic growth to the city. Fig. 4 shows a satellite image of building on coral reefs in Hurghada.

- **Egypt: Luxor Governorate – City of Luxor**

Tourism developers are interested in cultural aspects, which are the main attraction in Upper Egypt and which have positive effects on both the economy and the society. This concept has led to the redevelopment of the city such as through the re-opening of the Rams Road (Tareeq El-Kebash) linking the largest temples in Luxor, namely the Karnak and Luxor temples, the development of the Nile marinas as well as the development of Nile transportation from Cairo to Luxor.

Tourism developers should work on improving the environment in the hope of redirecting economic growth to the city once more. Fig. 5 shows the proposed Rams Road (Tareeq El-Kebash) with its final layout, while Fig. 6 shows the current image of Rams Road.



Figure 4: Building on coral reefs in Hurghada (satellite image).



Figure 5: Proposed Rams Road (El-Kebash) with final layout.



Figure 6: Current image of Rams Road (El-Kebash).

- **Egypt: Marsa Matruh Governorate – Siwa Oasis**

In the western part of Egypt, the main attraction is social tourism as seen in the Bedouin lifestyle, which even includes the treatment of diseases by burial in the sand or the use of sulfur hot water or simply by staying in Bedouin homes. There are some environmental hotels in the area such as Adrere Amellal Ecolodge.

- **Mass tourism and its various effects in Egypt**

As shown in the above examples, constructing new buildings is often carried out in tourist destinations without considering the social and environmental aspects in those areas, which results in harming the natural resources of those areas (the plants in Nabq and the coral reefs in Hurghada). Tourism developers should consider constructing buildings that are more environment friendly and which use solar energy instead of geothermal energy. Figures 7 show the negative impact of tourism in the future. It will be hard to predict what tourists will want for their future entertainment destination. Accordingly, there should be means to create a more sustainable tourism in all three aspects for the various tourist groups. Tourism is an essential part of development and growth in the world, and many countries, including Egypt, depend heavily on tourism to maintain and increase the level of income and employment opportunities.



Figure 7: Environmentally unfriendly construction with expected negative impact on tourism.

Statistics in 2011 showed that overall tourism in Egypt represented 49.2% of service exports, a 20% of foreign cash flow, and a 11.30% in the country's gross domestic product (GDP). Tourism represents 2% of the total implemented investments, 7.8% of the total investment in the services sector and 25% of the total taxes on services.

The seasonality of the demand on tourism in terms of tourists and tourist agencies or bodies results in high demand for only a few months each year, making tourism unsustainable in terms of economic, social and/or environmental respects. Tourists are considered consumers of the environment as their presence in a destination is considered a type of consumption. This currently coexists alongside the rapid and unplanned development. Thus, the development of mass tourism should be sustained from a global perspective but only environmentally sustainable on the local and regional levels. Mass tourism has grown along with the developments in the transport sector. There can be no tourism without travel. Accordingly, travel problems negatively affect tourism. Travelling requires various means of transportation. For example, we find that the phenomenon of mass tourism began with the rise in privately-owned cars in the United States in the 1920s and 1930s, and in Europe in the 1950s. Using private cars, tourists can visit local areas like beaches and rural areas. International travel started with the development of commercial aircraft and with the development of low cost

airlines, group tourism developed to remote destinations. The use of aircrafts in tourism represents about 30% of all transport-related tourism [5]. We find that one of the major problems with the comprehensive development of tourism is transferring tourists to their destinations. Studies show that 40–60% of problems affecting the environment result from means of transport in tourism. In addition, climate change affects air traffic, which is an important factor when discussing sustainable tourism. The issue is not the consumption of energy, but it is the noise and the pollution, as well as the waste and abuse of the landscape and residential areas. Only 20–30% of environmental damage caused by tourism is a result of tourism activities in places such as housing, restaurants and other services provided. So far we have discussed the concept of sustainable tourism without focusing on the means of transport [5]. Sharm El-Sheikh International Airport is located 10 km away from the borders of the Nabq protected area, which causes much environmental damage due to noise and general pollution on the reservation.

6 Conclusion

Creating a new model of sustainable tourism can develop tourism but cannot be completely sustainable; it can improve mass tourism but it is difficult at the same time to achieve economic, social and environmental sustainability. Previous studies have reached the same results, as tourism developers do not work with all three aspects of sustainability at the same time. They focus on one aspect, which in the end affects the others [8]. In order to develop the concept of sustainable tourism we have to separate the three components (economic, social and environmental) because grouping them as one concept creates contradiction. To be constructive and conclusive, we have to treat and analyze each concept individually. By focusing solely on environmental sustainability, sustainable mass tourism becomes a reality and not a fantasy. This study should be considered as a first step in acquiring a new perspective to change the focus in research on sustainability, because the world wants to continue the process of achieving a more sustainable tourism development in the future but with different approaches of study. More studies should be conducted to explore more views to achieve sustainable tourism. Instead of trying to use the concept of the report by the Brundtland Commission in 1987, which has not worked so far and is difficult for tourism developers to implement, we need a new perspective and a new starting point for sustainable tourism.

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