The residents’ reactions to sustainable tourism development in the Red Sea coast of Egypt

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Abstract: The issues of tourism development and sustainability are now at the forefront of much tourism research to find new solutions to tourism resources management and destination problems. However, despite the value of such attention in the possible improvement of destination management and the development of more sustainable forms of tourism, the concepts have remained relatively poor when they are critically analysed from a public policy perspective. This paper aims to explain the attitudes of the local Red Sea citizens towards the socioeconomic indicators of tourism development. To achieve the research objectives, data have been collected through 133 questionnaires that were distributed among the local Red Sea citizens. The results revealed that tourism development has positive impacts on the Red Sea region from the viewpoints of the local people. The tourism development policies in the Red Sea should concentrate on tourism projects that fulfil the requirements of sustainable tourism development to guarantee a positive reaction toward tourism development. To maximise the benefits of tourism development in the Red Sea, it is essential to create local cultural consciousness for the importance of concentrating on sustainability requirements/criteria in the future.

Keywords: tourism; development; sustainability; Red Sea; impacts; measures; Egypt.

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1 Introduction

An important tourism policy objective is to sustain the local values, culture and quality of life. For tourism policy to be successful, it must deal with the changes that will inevitably occur to local community life and the surrounding environment (Williams et al., 1995). The term ‘community-based ecotourism ventures’ should be used to distinguish those initiatives which are environmentally sensitive, but which also aim to ensure that local residents and the members of communities have a high degree of control over the activities that are taking place and a significant promotion of the benefits accrue to them (Scheyvens, 1999). The nature and strength of the attachment to community and the surrounding landscapes may influence how residents perceive the potential impacts of a growing tourism industry and may be important determinants of the successful coexistence between residents and the tourism industry (Williams et al., 1995). Tourism is crucial to the maintenance and development of local areas and communities. It has the capacity to economically and socially deliver to local citizens and rural communities throughout the country by sustaining livelihoods in areas which can have little in the way of alternative employment (Burns and Holden, 1995; WTO, 2002). A primary challenge for local governance, both today and in the decades ahead, is steering increasingly external and global forces towards local development so that development may achieve the shared vision of the local population. In cities, towns and villages throughout the world, the primary responsibility for this steering process rests with the local government and its diverse local authorities (Hawkins et al., 1991; Tribe, 1995; WTO, 2000).

As the world of tourism continued to expand, however, a disturbing array of social and environmental impacts began to present themselves. These impacts included the modification of indigenous cultures, increases in prostitution and crime, the pollution of sensitive natural areas and the excessive use of energy and water resources (Jenner and Smith, 1992). By the early 1990s, national tourism authorities have generally come to realise that the economic benefits of tourism would not be achievable in the long run unless tourism was properly planned and managed to include an explicit concern for the social and environmental assets upon which its future prosperity depends. The established policy objective of tourism (to stimulate economic development) was, therefore, widened to include the condition that such a development must also be environmentally and socially sustainable (WTO, 1999).

Egypt’s Red Sea coast has seen the most extensive tourism development in the entire Red Sea basin. It is distinguished by its fine weather, both in the summer and winter seasons. It is a suitable tourist destination for fishing. It has wonderful coral reefs and marine life. It is a diver’s dream, as it abounds in tourist hotels, resorts and diving sites. The Red Sea sustainable tourism development strategy aims to enable people to enjoy and learn about the unique natural, historical and cultural resources in this area while simultaneously preserving their integrity and stimulating the Red Sea’s economic development. Recognising that any development or human activity may have negative impacts if not properly managed, sustainability resolutions are necessary to have positive reactions. Anderreck and Vogt (2000) have proved that residents behave differently for various types of tourism development in their community. This paper aims to explore the attitudes of the local Red Sea citizens towards the economic/social variables of tourism development and evaluate the impacts of Tourism Development Projects (TDPs) on the local citizens, depending on sustainable tourism development criteria.
2 Literature review

Inappropriate tourism development results in the increase of stress on destinations and negative changes in the destinations’ physical, economic and sociocultural characteristics (Puczko and Ratz, 2000). The residents of any destination may perceive tourism in a positive way because of its potential for job creation, income generation and the enhancement of local community infrastructure and may perceive it in a negative way owing to its sociocultural and environmental costs (Andriotis and Vaughan, 2003). Residents perceive tourism market segments differently, depending on the economic productivity and the level of interaction between residents and tourists. The perceptions of the impacts of economics and the quality of life may depend on a variety of factors, for example, the number of tourists in a particular tourism segment, the economic return of investments made to attract targeted tourist groups (e.g., building a port or museum to attract cruise ships or heritage tourists) or the level of sharing of community places and services between tourists and residents (Tribe, 1995; Andereck and Vogt, 2000). In a community with a growing tourism industry such as the Red Sea sector in Egypt, it is hypothesised that the economic impacts from tourism would be perceived positively and the quality of life impacts would be somewhat compromised. This will be based on what the Red Sea area residents’ believes, their thinking about tourism resources and if they see tourism as an economic development strategy or not.

Before community residents begin the development of tourism resources, it is imperative to gain an understanding of the residents’ opinions regarding development. A commonly cited objective for understanding the residents’ reactions is that without community support, it is difficult to develop a sustainable tourism industry in a community (Andereck and Vogt, 2000; Harrill, 2004). Although it might be very nice to say that sustainability means the use of resources without the reduction of their utility value for future generations, sustainability is pretty much an unworkable concept for many of the world’s developing countries. A process of adaptation to the local needs of the existing planning, management and monitoring techniques in tourism is needed and this has to be done with a prior condition: understand the needs and desires of the local people (Gartner, 2001; WTO, 2006). Developing countries confront similar general challenges and obstacles to sustainability. There are three variables that might make the sustainability strategies and policies different from one developing country to another. These variables are the internal economic situation, socio-cultural and environmental circumstances and changes that each country experiences. However, for developing countries, it is necessary to ensure that their policies and actions for the development and management of tourism fully embrace the principles of sustainability (WTO, 2006). A primary challenge for local authorities, both today and in the future, is steering increasingly external and global forces on local development so that development achieves the shared vision of the local citizens (Jamal and Getz, 2000). The main responsibility for this steering process rests with the local government and its diverse local authorities. At the same time, the level of competition has been developed on a global basis; there has been a parallel emergence of almost universal pressure for an increased democratisation of governing processes at all levels. In tourism, the pressure has translated itself into a movement that demands the greater involvement of the local citizens in the broad range of decisions that are associated with virtually all forms of
tourism development and promotion. These demands have become particularly forceful in relation to those forms of tourism development and promotion that have a significant potential to harm the environment and host communities or indigenous cultures (Getz and Jamal, 1994; WTO, 1995; WTO, 1997; WTO, 1998; WTO, 2000). Tourism management, which respects the values of the indigenous community, is essential if tourism is to be a positive contributor to the sustainable development of destinations. This requires a form of governance which is sensitive to both the values of the tourists and those of the local communities (WTTC, 1990; Manning and Dougherty, 1995). A number of studies indicated that there is apparently an assumption that positive attitudes toward tourism imply support for tourism development (Jafari, 1986; Jafari et al., 1990; Andereck and Vogt, 2000). Tourism and recreation play increasingly important economic roles in the process of economic development of many countries.

Tourism expenditure contributes with more than 10% of Spain’s Gross Domestic Product (GDP) and 11% of the total employment. The main problems that arise from Spain’s reliance on tourism are:

- its dependence on economic prosperity in the economies of countries such as the UK, Germany and France. Recessions in those countries in the early 1980s and 1990s caused tourism expenditure to fail in Spain
- tourism employment tends to be low-skilled and seasonal
- the dash for tourism growth in the 1960s and 1970s caused environmental degradation, which threatened the continual prosperity of some of the earlier resort developments (Tribe, 1995).

France exports leisure goods (particularly skiing and camping equipment) and has domestic air activities and ferry capacities in the form of Air France and Brittany Ferries. The latter was set up specifically to promote tourism to Brittany and, in turn, promote the economic development of that region. The demand for tourist facilities stimulates considerable private investments in hotels and other provisions beside the encouragement of the history of the country (Tribe, 1995). The governmental responsibility is to issue the suitable procedure to guarantee the sustainability of tourism investment.

The tourism sector makes a significant contribution to the Egyptian economy, representing around 4.4% of the GDP and 7% of the total employment if only the direct effect is considered. However, when secondary/indirect effects are taken into account, these percentages rise to 11.6% and 15%, respectively. Tourism is also the largest foreign exchange earner in the country, with receipts reaching a value of US$4.3 billion (Eraqi, 2003).

It is important to note that this broad picture disguises the considerable variations at the national level and still greater variations at the regional level. In a number of developing countries, tourism represents a leading economic activity, having already overtaken cash crop agriculture or mineral extraction as their major source of national income, employment and export earnings. For example, tourism in Kenya has now displaced tea, coffee and horticultural products as the country’s leading export earner. At the regional level, meanwhile, the economic significance of tourism is often heightened (WTO, 2000).
Tourism activity in almost all countries is concentrated within certain regions, typically where there are large cities or extensive coastal areas. This pattern can be seen, for example, in Spain, where the Mediterranean coastal regions, the island territories and Madrid dominate the regional distribution of tourism activity (Jenner and Smith, 1992). The same pattern can be seen in countries such as Turkey and Tunisia.

Another difficulty with these broad measures of the economic importance of tourism is that they do not, in themselves, provide a particularly good measure of tourism’s economic impact. First, they measure the gross impact of tourism, while it is usually the incremental impact of tourism development that is important, i.e., the capacity of additional tourism activity to generate additional income, employment and other economic benefits for the destination economy. Second, the national tourism statistics are subject to a number of measurement defects which can seriously limit their value in making international comparisons of the economic role of tourism. It is usually considered preferable, therefore, to supplement these broad measures of the economic importance of tourism with information on a range of tourism multipliers (WTO, 1999).

The capacity of tourism to generate economic development is best seen by examining the impacts of additional tourist spending on a destination area which, in turn, serves to generate incomes, employment and a range of other benefits for the host economy. Tourism multipliers attempt to summarise these incremental impacts in the form of a simple coefficient. The two most common formulations are the tourism income multiplier and the tourism employment multiplier (Beardshaw, 1992; Sinclair and Stabler, 1997; Baum and Mudambi, 1999; Boyd, 2002).

Countries with well-established local supply networks for the tourism sector, on the other hand, tend to exhibit higher income and employment multipliers. Where strong links exist between tourism and the other sectors of the economy, the demands of the tourism sector are more easily met by local suppliers. Some countries have, therefore, attempted to reduce expenditure leakage from their tourism sectors by developing stronger links between tourism and its supply industries. For example, government policy in Jamaica has concentrated on the strengthening of the economic links between tourism and the agriculture sector, thereby reducing the need for the tourism sector to import food (Sinclair and Stabler, 1997; WTO, 1998; WTO, 1999; Boyd, 2002; Yeoh et al., 2002).

2.1 The focus on coastal, rural and remote areas

Decision-makers are increasingly turning to tourism as an available economic development strategy as many countries experience industrial restructuring (Harrill, 2004). Developing countries are seriously looking into the sustainable development of tourism as a vehicle of poverty alleviation in remote and rural areas (WTO, 2006). The early development of world tourism was focused particularly on coastal areas. Indeed, the ‘tourism resort’ originated as a purpose-built response to the evident popularity of coastal areas as tourist destinations. However, with the growth of demand for less geographically-specific forms of tourism, such as cultural tourism, adventure tourism and ecotourism, many coastal resort destinations now find themselves in economic decline (Fletcher and Snee, 1989). With few alternative economic activities to fall back on, many coastal resorts are now trying to ‘reinvent’ tourism in their area by diversifying into those market segments that are presently experiencing growth. A good example is Spain, which
The residents’ reactions to sustainable tourism development in the Red Sea

experienced a downward trend in coastal resort tourism and reoriented its marketing strategy to emphasise cultural and rural tourism in the coastal hinterlands (WTO, 1999; Boyd, 2002; Yeoh et al., 2002).

Tourism is often more effective than other industries in generating income and employment in the rural, remote and depressed regions of a country. Indeed, the development of tourism usually has a relatively greater economic impact in such areas. Where incomes are relatively low, an involvement in tourism can provide a huge lift to the economic well-being of the local people. Tourism also stimulates economic development in the other sectors of the economy where it has backward linkages, including agriculture, transport, catering and retailing (Archer, 1989).

In rural areas that are experiencing the decline of traditional industries such as agriculture, forestry and handicrafts, tourism may represent the only realistic opportunity to create economic activity and bring about economic regeneration. Diversification into tourism-related activities can help supplement the incomes of those who are working in depressed economic sectors and ease some of the pain of economic restructuring. The development of tourism may also help moderate or even arrest the migration of people from rural areas to cities in search of work (WTO, 1999; WTO, 2002; Weaver and Lawton, 2004).

Furthermore, in some countries in Africa, the economic returns on the lands devoted to tourism (e.g., game parks in South Africa, Zimbabwe, Botswana and elsewhere) have proved to be much higher than on similar lands with agricultural crops or cattle (Tribe, 1995; WTO, 1999). There is a limited local control of the tourism industry in developing countries. Economic, environmental and sociocultural factors need to be taken into consideration during the planning and implementation of tourism development projects. The local access to land, water and other precious or scarce resources that are vital for subsistence is often negatively impacted, because when they have to compete with tourists, they invariably lose out, which accentuates their poverty levels. The challenge for the public is how to perceive tourism in order to gain local support for tourism projects and initiatives.

2.2 The Red Sea development characteristics

The Red Sea region consists of two subregions, namely, South Sinai and the Red Sea. This region is a marine resort area which has newly grown as a main tourism destination in Egypt. Over 1.2 million tourists visit the Red Sea coast, bringing in over $1.2 billion in foreign exchange and generating more than 275 000 jobs. The number of hotel guests is around one million (Egypt, 2003). A majority of the visitors are European holidaymakers. The Red Sea area has become one of Egypt’s premier tourism destinations, based in large part on its unique and fragile marine environment. The Red Sea area is that exquisite corridor of tinted mountains and radiant water which runs from the Gulf of Suez to the Sudanese border. The major cities and towns of the Red Sea are Ain Sukhna, Berenice, Bir Shalatein, El Gouna, Red Sea, Mersa Alam, Al-Quseir, Safaga, Suez and Zafarana. The Red Sea region, dotted with coral reefs, fringed by ancient ports and teeming with underwater life, has a rich maritime history that stretches back to Pharaonic times. Its mineral-rich red mountain ranges inspired the mariners of antiquity to name the sea ‘Mare Rostrum’ or the Red Sea (MOT, 2001).
The Red Sea governorate contains four principal population centres and tourist destinations – Red Sea, Safaga, El Quseir and Mersa Alam. The main resort area in the region, however, is Red Sea. The Red Sea region is lined with resorts and towns that are eager to receive sun-worshippers. While the sun is the same, the resorts and towns are not. Unrestricted mass construction along the Red Sea region has managed to change once pristine destinations like the Red Sea or Sharm el Sheikh into shells of their former selves, with diving and snorkeling areas and the local charm permanently damaged (Gartner, 1996).

With the Egyptian tourism industry expanding at a rapid pace, despite some temporary setbacks that were caused by events following the terrorists attacks in the USA, fully integrated resorts are representative of what tourists can expect to experience in Egypt in the years to come. Rather, discriminating tourists choose to stay at one of the many private sector tourist developments that have blossomed in Egypt over the last 15 years. These fully integrated communities are the equivalent of small towns that are devoted to the pursuit of leisure, offering golf courses, five-star hotels and diving centres. While that may be one nod to luxury, it does not come at the expense of the local environment, an overriding rationale of the new integrated resorts (Crown, 2003).

The resort that started the movement in Egypt and continues to inspire other resort projects is El Gouna (‘The Lagoon’). About 22 km north of the Red Sea, El Gouna consists of a planned community of nine million square metres, with a remaining three and a half million under construction.

In 1989, Orascom Projects and Touristic Development (OPTD) was established to develop and build resorts from scratch, thus ensuring complete control of the final product. OPTD’s first project, El Gouna, was built following several principles, including development in a carefully planned manner to prohibit the unforeseen planning that would affect the quality of the resort. The idea of El Gouna really started as a very small project that would improve the lifestyles of families and friends who love fishing and boats. A place like the Red Sea should be increasingly visited by large numbers of tourists, but places like that have been ruined by overdevelopment over the last 15 years or so. Michael Graves, an architect for Walt Disney, designed sections of El Gouna, as did Alfredo Fredda, a prominent Italian architect. El Gouna is the home of several five-star hotels, including Movenpick Resort, Sheraton Miramar Resort and the Steigenberger Golf Resort. It also offers numerous boutique hotels and four-star accommodations. The 18-hole par 72 golf course was designed by Gene Bates. The town of El Gouna is supported by an infrastructure that is independent of any surrounding towns. OPTD built four electrical power plants, a water treatment plant, a sewage treatment plant, roads, lagoons, microwaves and satellite phones, a local and regional transportation network, two marinas, a private airport, a hospital and an international school (TDA et al., 1998).

Another resort is taking shape about 20 km south of the Red Sea. Sahl Hasheesh is one of the largest concessions in the Red Sea, covering 32 million square meters. Similar to OPTD’s philosophy of retaining sole control, the Egyptian Resorts Company (ERC) retains direct control of the development, which the company has dubbed ‘A New Place in the Sun’. The ERC has very ambitious plans to make Sahl Hasheesh the best integrated resort on the Red Sea and the plans reflect that it also has to have a character of its own. Sahl Hasheesh will be developed in three phases: the first and second are six million square meter increments and the third consists of 20 million square meters. During the
The residents’ reactions to sustainable tourism development in the Red Sea

first phase, 13 sites are allocated for hotels with a total capacity of nearly 3000 rooms. There are currently six hotels under construction, as well as two golf courses. The first phase is scheduled to be completed by the end of 2004 (TDA et al., 1998).

The 120 km coastal stretch between El Quseir and Mersa Alam is earmarked by the Tourism Development Authority (TDA) for significant tourism investment. It is anticipated that a large number of hotels, along with real estate components and a variety of other ancillary leisure facilities, will be developed over the next decade. In recent years, however, tourism development has increasingly come into conflict with the protection and conservation of Red Sea resources. To assure that future tourism development in the southern Red Sea preserves the environmental resources that make the area so attractive to tourists, the Egyptian government proposed the development of a land use management plan that identifies the zones for different types and levels of development and preservation. In addition, to counteract tourism’s negative efforts while still encouraging economic growth, the government proposed a programme to protect designated marine and coastal areas through the establishment of nature reserves and build the capacity of national and local government agencies, as well as private tourism enterprises, to cope with the many challenges that are presented by a booming tourism industry (Biliana and Knecht, 1998; TDA et al., 1998; Nahla, 2001; MOT, 2001). A relatively recent phenomenon is the development of new hotels within master-planned resort communities. These offer a variety of facilities, including retail, leisure (golf), entertainment and increasingly residential real estate components. The El Gouna resort, a fully self-contained and independent resort community, pioneered this type of development. The success of El Gouna in the establishment of a precedent for a destination resort development in the Red Sea has stimulated the development of other integrated resort communities, notably the Sahl Hasheesh Resort Community and Abu Soma (Smits and Shousha, 1998).

It is clear that tourism development is becoming an important component of the economic development programmes in the Egyptian Red Sea coast. To gain support for tourism projects and initiatives, it is necessary to understand how the residents of the Red Sea region perceive tourism development in their community. Also, it is important to understand that most individuals and communities who do not receive economic benefits from tourism growth will not support further tourism development (Martin et al., 1998).

3 Research methodology

To reach a reliable and adequate evaluation of the local Red Sea citizens’ points of view toward tourism development in the Red Sea region, an in-depth interview survey with tourism development experts from the TDA in Egypt was undertaken in the spring and winter of 2005. This was based upon a pilot survey that was undertaken in 2004, where the scope of the interviews was tested and the key opinion leaders were identified. The interviews focused on the evaluation of the Red Sea’s residents of the variables of tourism development and sustainability. Based on the viewpoints of the TDA experts, random sampling was employed to choose 250 persons from the population of the Red Sea. The main criterion for the selection of the participants was to be a local citizen of the area (sector of Hurghada-Safaga).
A questionnaire was designed for the purpose of achieving the research objectives. The questions were chosen according to the main criteria that should be considered when one tries to measure the tourism development impacts as extracted from the tourism economic literature (WTO, 1999; Weaver and Lawton, 2004). Also, the viewpoints of a number of experts in the area of tourism development were considered in the pilot stage and when deciding the final questions to be included. There were 133 questionnaire forms that have been collected from the chosen residents and the response rate was about 53%. Statistical methods such as frequency distributions, the statistical mean, t-test and Chi$^2$ have been used for measuring the survey results and interpreting the research outcomes (Babakus et al., 2003).

4 Results and discussions

This section of the research paper attempts to measure the reactions of the local residents of the Red Sea towards the process of tourism development in their area. This measure is considered as the indicator of the extent to which the local people have socially and economically benefited from the TDPs in the Red Sea area. Table 1 explains the main criteria that have been used for tourism development impact assessment using the frequency distribution and statistical mean methods. Tables 2 and 3 show the Chi$^2$ test and t-test that have been used to measure the statistical consistency of the results.

Most of the residents said that tourism increases the cost of living for the local people (75.9%) and there are only 24.1% of them who saw that tourism does not increase the cost of living of the local residents in the Red Sea area. The consistency of this result is accepted (statistical mean = 1.7594 and Chi$^2$ = 35.7971, p < 0.05) (Tables 1 and 2).

Concerning the degree of that tourism creates business and more opportunities of work only 45.9% of the respondents saw tourism as a means to create businesses and reduce unemployment. The higher percentage of the respondents (54.1%) saw that tourism does not create businesses and does not reduce unemployment for the local people (mean = 1.4586, Chi$^2$ = 0.9101, p > 0.05 and t = 33.632 > 2, p < 0.05) (Tables 1, 2 and 3). This result may not be completely correct; however, it is necessary to note that most of the people who work in the tourism sector in the Red Sea are not local residents. Local people may have not been involved well and they still need more training to have the suitable skills and awareness to be involved and employed in the tourism sector.

Approximately 52.6% of the respondents said that tourism raises the personal standards of living (mean = 1.5263, Chi$^2$ = 0.3681, p > 0.05 and t = 35.121 > 2, p < 0.05) (Tables 1, 2 and 3). It is necessary to note here that for the people who have a chance to work directly in tourism, their standards of living are improved. Also, some people who work in farms and other industries still have the opportunity to gain benefits from tourism by selling their products to tourists and so their standards of living will rise, compared to the situation before tourism.

The majority of the respondents (77.4%) said that tourism yields more facilities and economic activities for the local people (mean = 1.7744, Chi$^2$ = 40.0681, p < 0.05) (Tables 1 and 2). This result is matched by the personal standards of living that have been improved because of tourism.
Table 1  The tourism development impact assessment

<table>
<thead>
<tr>
<th>Tourism development impact statements (measures)</th>
<th>Frequency of yes</th>
<th>Frequency of no</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism increases the cost of living for the local people.</td>
<td>101 75.9</td>
<td>32 24.1</td>
<td>1.7594</td>
<td>0.42906</td>
</tr>
<tr>
<td>Tourism creates business and reduces unemployment.</td>
<td>61 45.9</td>
<td>72 54.1</td>
<td>1.4586</td>
<td>0.50017</td>
</tr>
<tr>
<td>Tourism raises the personal standards of living.</td>
<td>70 52.6</td>
<td>63 47.4</td>
<td>1.5263</td>
<td>0.50119</td>
</tr>
<tr>
<td>Tourism yields more facilities and economic activities for residents.</td>
<td>103 77.4</td>
<td>30 22.6</td>
<td>1.7744</td>
<td>0.41953</td>
</tr>
<tr>
<td>The efficiency of transport and infrastructure has been improved because of tourism.</td>
<td>47 35.3</td>
<td>86 64.7</td>
<td>1.3534</td>
<td>0.47983</td>
</tr>
<tr>
<td>Tourism increases property values and housing prices.</td>
<td>48 36.1</td>
<td>85 63.9</td>
<td>1.3609</td>
<td>0.48208</td>
</tr>
<tr>
<td>The level of security and safety has been improved because of tourism.</td>
<td>54 40.6</td>
<td>79 59.4</td>
<td>1.4060</td>
<td>0.49294</td>
</tr>
<tr>
<td>Tourism development has adverse impacts on the environmental quality.</td>
<td>56 42.1</td>
<td>77 57.9</td>
<td>1.4211</td>
<td>0.49559</td>
</tr>
<tr>
<td>Tourists have negatively affected the lifestyle of the local people.</td>
<td>96 72.2</td>
<td>37 27.8</td>
<td>1.7218</td>
<td>0.44980</td>
</tr>
<tr>
<td>Tourism has encouraged more positive cultural exchanges between tourists and the local residents.</td>
<td>93 69.9</td>
<td>40 30.1</td>
<td>1.6992</td>
<td>0.46032</td>
</tr>
<tr>
<td>Tourism has positively affected the cultural identity of the local community.</td>
<td>82 61.7</td>
<td>51 38.3</td>
<td>1.6165</td>
<td>0.48807</td>
</tr>
</tbody>
</table>

Note: Research scale: Yes = 2 and No = 1.

Table 2  The Chi² test of the measures of the tourism development impact

<table>
<thead>
<tr>
<th>Tourism development impact statements (measures)</th>
<th>Chi²</th>
<th>Chi sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism increases the cost of living for the local people.</td>
<td>35.7971</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism creates business and reduces unemployment.</td>
<td>0.9101</td>
<td>0.340</td>
</tr>
<tr>
<td>Tourism raises the personal standards of living.</td>
<td>0.3681</td>
<td>0.544</td>
</tr>
<tr>
<td>Tourism yields more facilities and economic activities for residents.</td>
<td>40.0681</td>
<td>0.000</td>
</tr>
<tr>
<td>The efficiency of transport and infrastructure has been improved because of tourism.</td>
<td>11.4361</td>
<td>0.001</td>
</tr>
<tr>
<td>Tourism increases property values and housing prices.</td>
<td>10.2931</td>
<td>0.001</td>
</tr>
<tr>
<td>The level of security and safety has been improved because of tourism.</td>
<td>4.6991</td>
<td>0.030</td>
</tr>
<tr>
<td>Tourism development has adverse impacts on the environmental quality.</td>
<td>3.3161</td>
<td>0.069</td>
</tr>
<tr>
<td>Tourists have negatively affected the lifestyle of the local people.</td>
<td>26.1731</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism has encouraged more positive cultural exchanges between tourists and the local residents.</td>
<td>21.1201</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism has positively affected the cultural identity of the local community.</td>
<td>7.2261</td>
<td>0.007</td>
</tr>
</tbody>
</table>
Table 3  The one-sample test of the measures of the tourism development impact

<table>
<thead>
<tr>
<th>Tourism development impact statements (measures)</th>
<th>t</th>
<th>t. Sig. (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism increases the cost of living for the local people.</td>
<td>47.290</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism creates business and reduces unemployment.</td>
<td>33.632</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism raises the personal standards of living.</td>
<td>35.121</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism yields more facilities and economic activities for residents.</td>
<td>48.778</td>
<td>0.000</td>
</tr>
<tr>
<td>The efficiency of transport and infrastructure has been improved because of tourism.</td>
<td>32.528</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism increases property values and housing prices.</td>
<td>32.556</td>
<td>0.000</td>
</tr>
<tr>
<td>The level of security and safety has been improved because of tourism.</td>
<td>32.894</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism development has adverse impacts on the environmental quality.</td>
<td>33.068</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourists have negatively affected the lifestyle of the local people.</td>
<td>44.145</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism has encouraged more positive cultural exchanges between tourists and the local residents.</td>
<td>42.572</td>
<td>0.000</td>
</tr>
<tr>
<td>Tourism has positively affected the cultural identity of the local community.</td>
<td>38.197</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Around 64.7% of the respondents did not see that tourism has improved the efficiency of transport and infrastructure for local people (mean = 1.3534, \( \chi^2 = 11.4361, p < 0.05 \)) (Tables 1 and 2). This outcome may be correct because tourists use special transport means and there is no significant contact with the local people. In the Red Sea region, in which a large scale of the accommodations is planned, transport system improvements and upgrades are also needed, in accordance with the increase of visitor arrivals. For example, for international visitors, it is difficult to use the bus network because of limited information. Diversification of accommodation development in the Red Sea will bring traffic congestion in the city area. So the development of bypass roads and improvements in traffic junctions will be needed in the nearest future. This will improve the quality of the security and safety conditions.

Tourism does not increase the property values and housing prices for local residents. There are 63.9% of the respondents who saw that (mean = 1.3609, \( \chi^2 = 10.2931, p < 0.05 \)) (Tables 1 and 2). This is because most of the tourist buildings and facilities were established in the desert areas and there is still a wide area of desert that needs to be exploited.

About 59.4% of the respondents did not believe that the level of security and safety has been improved because of tourism (mean = 1.4060, \( \chi^2 = 4.6991, p < 0.05 \)) (Tables 1 and 2). This can be seen in the appearance of some crises and inconvenient circumstances that have happened to the local residents.

There is a big piece of the respondents (57.9%) who did not see that tourism development has adverse impacts on the environmental quality (mean = 1.4211, \( \chi^2 = 3.3161, p > 0.05 \) and \( t = 33.068, p < 0.05 \)) (Tables 1, 2 and 3). This result shows that the local people are not aware enough of the effect of tourism on the natural environment and the side effects of mass tourism on the Red Sea reef and wildlife. However, the situation has now improved because of the new governmental policies regarding the enhancement and maintenance of the natural environment in the Red Sea area. Ecological zones have been defined in order to assure that tourism development preserves the marine and terrestrial ecosystems of highly sensitive areas. This involved
a meticulous process to determine an optimum land use management strategy that identifies the various zones for different types and levels of development and environmental management, including the development and promotion of ecotourism activities. The zoning efforts recognise the importance of conservation policies in securing long-term benefits from the tourism development in this area. These arrangements will lead to a respondents positive situation.

Most of the respondents (72.2%) said that tourism has negatively affected the lifestyle of the local people (mean = 1.7218, \( \chi^2 = 26.1731, p < 0.05 \)) (Tables 1 and 2). This has always been happening because of the rising level of crime and the new practices that the local residents did not used to. Tourism increases the level of prostitution and crime, the pollution of sensitive natural areas and the excessive use of energy and water resources.

Approximately 69.9% of the respondents said that tourism has encouraged more positive cultural exchanges between tourists and the local people (mean = 1.6992, \( \chi^2 = 21.1201, p < 0.05 \)) (Tables 1 and 2). This result can be supported if one sees the change of work patterns for the local people. Residents become more active and look for a better life.

Again, the previous result can be more supported if one knows that 61.7% of the respondents saw that tourism has positively affected the cultural identity of the local community (mean = 1.6165, \( \chi^2 = 7.2261, p < 0.05 \)) (Tables 1 and 2). This placed greater importance on the social, psychological and managerial indicators in conveying a positive attitude towards the tourism development strategies and policies in the Red Sea area.

5 Conclusions and implications

Most of the local Red Sea residents’ reactions toward tourism development are positive, on average. They consider tourism development as very important and generating positive benefits for the local people. This is because tourism yields more facilities and economic activities in the Red Sea community. The local people’s living conditions have considerably improved due to tourism development. Tourism has positively impacted on the cultural identity of the local community and encouraged more positive cultural exchanges between tourists and the local people. It yields more facilities and economic activities for the local people, etc. However, tourism has negatively affected the lifestyle of the local people and increased prostitution and crime. The tourism development policies in the Red Sea need to concentrate on the requirements of sustainability. The local residents need more training to improve their skills and raise their awareness to be involved more and more in the tourism development processes. A transport network is generally identified as an important tourism infrastructure, which can be called ‘basic tourism infrastructure’. The expansion of the capacities of each transport facility and the upgrade of transport services are indispensable measures to make the local residents more involved and realise the area’s tourism development target.

To maximise the benefits of tourism development in the Red Sea region, it is important to create local cultural consciousness for the importance of taking sustainability requirements into consideration when designing new tourism projects or strategies. The Egyptian tourism policy has reduced the gap between the theoretical concept of sustainability and real-world coastal development implementation.
References

M.I. Eraqi
The residents’ reactions to sustainable tourism development in the Red Sea


