

INVESTING AND PROVIDING THE SOLUTIONS TO CONFRONT THE ENVIRONMENTAL ISSUES OF THE PROJECTS RELATED TO COASTAL TOURISM IN KISH ISLAND

INVESTIR E FORNECER SOLUÇÕES PARA ENFRENTAR AS QUESTÕES AMBIENTAIS DOS PROJETOS RELACIONADOS AO TURISMO COSTEIRO NA ILHA DE KISH

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Abstract: Today, tourism industry is considered as the largest and the most various industries in the world and many countries regard the industry as a part of their main source of income, employment, the growth of the private sector and the development of infrastructure. Coastal areas naturally attract human beings and include the required potential for tourists. And coastal tourism can be undoubtedly seen as a source of added value and special income for coastal cities. But, the point is necessary that coastal environment is so sensitive and vulnerable and the resulted pressures from tourism-based activities such as creating different projects to attract tourist like hotels, markets, diving clubs, docks, etc. may destroy the environment's ecological balance. The method of the present research is descriptive-analytical, and data collection has been performed through library studies and field observations. The research's purpose is practical; and next to the basic knowledge of coastal tourism, it has been embarked on the study of the role of tourists in destroying the environment of Kish Island and the environmental effects of tourism-based projects. In the following, the research has studied the intruder factors like users' changes and their effects on the transformation of coasts as well as the changes made on sandy coasts caused by the impact of human structures. The results show that the increasing number of tourists and building the tourism and welfare facilities for them have destroyed and transformed the natural form of the coasts and the issue makes it necessary to planning for the sustainable development of the coasts.

Keywords: tourism; coastal areas; the environment; Kish Island; users' changes.

Resumo: Hoje, a indústria do turismo é considerada a maior e mais variada indústria do mundo e muitos países consideram a indústria como uma das principais fontes de renda, emprego, crescimento do setor privado e desenvolvimento de infra-estrutura. As áreas costeiras atraem naturalmente os seres humanos e incluem o potencial necessário para os turistas. E o turismo costeiro pode ser, sem dúvida, visto como uma fonte de valor agregado e renda especial para as cidades costeiras. Mas, o ponto é que o ambiente costeiro é tão sensível e vulnerável e as pressões resultantes de atividades baseadas no turismo, como a criação de diferentes projetos para atrair turistas como hotéis, mercados, clubes de mergulho, docas, etc. podem destruir o equilíbrio ecológico do meio ambiente. O método da presente pesquisa é descritivo-analítico, e a coleta de dados foi realizada por meio de estudos bibliográficos e observações de campo. O objetivo da pesquisa é prático; e, ao lado do conhecimento básico do turismo costeiro, embarcou no estudo do papel dos turistas na destruição do meio ambiente da ilha de Kish e nos efeitos ambientais dos projetos baseados no turismo. A seguir, a pesquisa estudou os fatores intrusos como as mudanças dos usuários e seus efeitos na transformação das costas, bem como as mudanças feitas nas costas arenosas causadas pelo impacto das estruturas humanas. Os resultados mostram que o aumento do número de turistas e a construção de instalações de turismo e bem-estar para eles destruíram e transformaram a forma natural das costas e a questão torna necessário o planejamento para o desenvolvimento sustentável das costas.

Palavras-chave: turismo; áreas costeiras; meio ambiente; ilha de Kish; mudanças dos usuários.

Introduction

Today, tourism is the best way to recognize the world, the friendship of nations, the dialogue among civilizations, the healthy economy and the optimal use of nature and the environment (Heidari, 2009: 10). Public opinions consider tourism as to be limited to the study of historical buildings and ancient works. But, marine phenomena and views undoubtedly are one of the most important areas of tourism and the prospect of the future economy, and can be considered so much.

But the important thing is that the prosperity of tourism in any geographic location, along with positive and negative economic and social consequences, includes some environmental impacts, which, if continued, could cause irreparable damages. Today, the volume of human activities and their impacts on the environment have become so large that the area of influence of pollution and environmental degradation is not limited to a specific point in the world; these problems have spread all over the world (Honarbakhsh, 2006: 79). Undoubtedly, Kish Island, considering its natural and ecological position, existing in the Persian Gulf as the only coral island in Iran, having areas full of unique natural phenomena, and maintaining marine and environmental conditions, has provided an appropriate ground for the development of tourism industry and the creation of tourism projects competing with different countries, and can play a significant role in transmitting science and economic development. But, not paying attention to these sensitive areas can ultimately lead to their destruction and the decrease of the amount of investment in the island, which needs targeted and sustained planning.

So far, various studies, surveys and reports on environmental issues of the island have been presented and some dissertations have also been written. Ms. Pegah Omidvar, in her thesis of master's degree, has assessed the environmental consequences of tourism in Kish Island and proposed a solution for managing coastal areas. Also, the consultant engineers of Sazeh pardaz Iran have performed a project called "comprehensive plan of the management of Kish Island environment and coasts (ICZM)" in 2007 with the management of the company "Fara Darya Arsheh" and the support of Kish Free Zone Organization, and have provided 15 volumes of books from their reports. The present study has been conducted to answer the following question: What are the environmental consequences of the projects related to tourism in Kish Island?

The present article, that has been conducted in descriptive and analytical manner and has collected data through library studies and field observations, after defining tourism and its role in destruction of coasts, has studied the user changes and its role in changing the shape of coasts and the destruction of the environment, and finally, has proposed some solution with presenting the swot table.

Theoretical Frameworks of the Study

History and Concept of Coastal Tourism

Coastal tourism is one of the oldest types of tourism. Initially, these spaces were reserved for people just visiting sea coasts; but in recent decades, the coastal tourism market has often demanded a wide variety of lodging types and tourists' uses, especially during the summer, and in an increasingly challenge, has called for major investments in the field of infrastructure and ... creating facilities and protecting natural resources such as sea, coasts, wetlands and other natural heritages. Tourism is a multipurpose activity that takes place outside the tourist's normal environment, and tourist travels not for more than a year, and the purpose is recreation, commerce or other activities. If coastal areas and marine environment are intended to carry out these activities, it would be called coastal tourism (Sarabi, 2009: 75). Coastal tourism requires traveling from a place of residence and focusing on marine environments (orams, 1999: 8). Coastal area is the linking location of water and land and the interface between two ecosystems with separate attributes (Danesh Kar, 2004: 10). Today, coastal tourism is considered as one of the greatest activities of the world, which directly affects forming the pattern of coastal area development and provides direct and indirect economic, social, cultural and environmental benefits for the host. But it should be stated that such an approach would be undoubtedly along with the concerns and fears of threats and destruction of the identity, environment and natural, historical and cultural heritages of the local people. Therefore, tackling the effects of uncontrolled tourism growth and, more generally, achieving sustainable tourism

requires the proper ways and manners of planning, design and management of these locations.

Of all the activities carried out in coastal areas, none are as diverse as the issue of tourism and coastal recreations, as the dynamic nature of this area and the extent of demand often include the relevant plans as national and regional plans, and all coasts are directly and indirectly affected by it. Clean water, safe coastal habitations and a safe and enjoyable environment are the basis of successful coastal tourism. Similarly, aquatic and marine resources (fishes, mollusca, coral hills and wetlands) are also of interest (Anvari and Nassaj, 1999: 10).

Coastal tourism activities can be divided into two main groups:

1. Activities relied on human-made facilities such as: shopping, recreation, use of restaurants, parks, coastal theme parks, open-air cinemas and etc. (Sarabi, 1999: 72).
2. Activities relied on nature such as: fishing, swimming, sun bath, diving, sailing, skiing, surfing, etc.

Sustainable Tourism

One type of sustainable development is tourism. According to Butler's definition, sustainable tourism is a type of tourism that continues at unlimited time in an environment and does not harm the environment in human and physical terms, and is active in such a manner that does not harm other social activities and processes with facilitating sustainable development (Tabibian, 2005: 94). Sustainability in tourism causes that the process of providing services to tourists is in line with maintaining the natural environment.

Figure 1, The position of social sustainability in Structural dimensions of Sustainable development (Source: keiner, 2003, 381)



Tourism in Kish Island

Kish Island, being the center of Kish state of Bandar Lengeh city in Hormozgan province in terms of country divisions with a surface area of 90.457 square kilometers, is located in 18 kilometers from the southern boundary of Iran.

Image 1, Aerial photograph of the location of Kish Island (Source: Earthobservation.nasa.gov)



In 1970, an American-Iranian delegation visited the Island, and selected it as an international tourist center given its natural characteristics, the beautiful coral coasts and the clear waters surrounding it (Etemadfar, 2009). King's palace, Kish Hotel, Airport and Casino are regarded as the first modern buildings of Kish. Until the victory of the Islamic Revolution of Iran, Kish was considered as the center of recreation for the king and his friends. Kish Island was chosen as the country's first economic free zone in 1982, and today, Kish economy is based on tourism and business. Kish Island has very good facilities and potentials to attracts tourists and can attract a wide range of domestic and foreign tourists.

The coral structure, the historical and cultural attractions, the ability to swim and recreation in cold months of the year, the rich underwater life, native vegetation, the proper beach topography, the position of the Island compared to the main body of the country and etc. are some of the facilities of the Island. Due to the sensitive ecosystem of Kish Island, any development and suggesting any project for tourism development requires a careful investigation and the assessment process of the environmental impacts. (Niazmand, 1999: 9).

Map 1, Kish Island (source: map.kish.ir)



2. The role of tourists on Kish coasts

Probably, due to high tourism facilities and better management on Kish Island compared to other Iranian coasts, it includes fewer problems than other coasts, but unfortunately, tourists have always had negative impacts on the coasts and waters of the coastal zone, which needs to be programmed better and more thoroughly. Nowadays, in Kish Island, the largest volume of recreational and tourist centers has gathered in the eastern part of the Island. As a result, tourism performance has the greatest impact on the eastern and northeastern coastline of the Island. In the northern part of the Island, Portuguese valley and the ancient city of Harireh are located and there are fishing tackle and pergolas near the coast and shopping centers in the northwest of the Island, alongside the Arabians area. In the western part, tourists visit the Hoor hut, and in the southwest, there is also the Greek ship, which is often the gathering place of many tourists at the dusk. In other parts of the island's coastline, especially along the southern coastline, original coasts are remained, and there is no user change for tourist uses. According to the east and northeast sandy coasts of the island, these areas are appropriate for sport and recreation applications such as coastal beaches and water sports and the largest amount of tourists and the largest user changes of coasts are undoubtedly observed in this part of the coast for tourists to use them.

Residential centers (hotels and facilities) have been effective on land use, beauty and attraction of landscapes (facilities and waste), soil (erosion and degradation), pollution (water and sewage), and surface waters. Commercial centers have also affected land use, surface water, the beauty and attractiveness of landscapes, soil, environmental pollution, culture and the economy of the region. Finally, recreational tourist and sports centers, especially the facilities provided in the coasts have affected land uses, surface and underground waters, the beauty and attractiveness of landscapes, soil, environmental pollution and wildlife of the region. In the present situation, buildings and constructions are constructed in extensive lands and numerous spots in the island, especially in

sensitive and fragile areas, without any environmental justification (Heidari, 1999, 137).

Indiscreet degradation and transformation of natural spaces into artifact ones and the construction of large and high-rise buildings due to the limitation of the natural landscape of the island and making the balance between natural and artificial environments (man-made) in the coastal zone is completely observable. The fragmentation of natural landscapes with the construction of roads and buildings will have the effects of the destruction of sensitive ecosystems, the reduction of values and physical damage. For environmental support in the actions, precise programs must be made to prevent the destruction of ecosystems before projects are implemented (ibid. 177).

Studies have shown that the eastern and northeastern parts of the island, which include the largest volume of tourists, have a high concentration of tourist facilities (such as pergolas along the beach, hotels and restaurants, and sports facilities, etc.), and the coasts are often sandy, with the most significant morphological change, or more directly, the direct degradation of the sandy coasts. In this regard, coastal constructions have played a major role as a barrier to coastal sedimentation and erosion, and they themselves cause forming a particular shape of the coast. As a result, it can be said that the density of tourists on special areas of the coasts leads to increase the facilities and constructions in these parts for the well-being of tourists and attract more tourists, that the existence of these facilities will change the shape and morphology of the coastline, and sometimes in some cases, for special utilizations, they cut some parts of the coast or add to it in the form of advancing in water, leading to a change in the coastline (ibid. 177). On the other hand, the traffic of tourists to the coasts not only increases the pollution of water and coastal environment, but also because of their use of coasts causes changes in the coastal environment, such as the collection of shells and decorative corals by tourists.

3-User changes and their role in changing the shape of the coast

As mentioned above, one of the factors changing coastline is human factor that is being considered as land user changes. Because Kish Island is one of the most beautiful and most touristic islands in the country, we will see the increasing of its user changes day by day which leads the island to be transformed from a natural environment to a human-made environment. Thus, the process of land user development in the island can be divided into three general periods:

- First period: Kish in 1960s and earlier - Second period: Kish in 1970s - Third period: The present Kish (Consultant Engineers of Sazeh Pardaz Company, 2007: 8).

•First Period

In the first period, Kish could be called an isolated, traditional structure. fishing, agriculture and trade activities dominated its economy. The island was governed by the tribes' kingdom. The island's population in the 1966 census was 110 people, of which more than 80% were in Masheh, Based on the information displayed on Razmara's map in 1962 as well as the aerial photo in 1967, human-made elements occupy less than 8% of the island's surface during this period and include the following elements:

Anchorage	Many gardens, mostly located around the settlements.	The ruins of Harireh city
Qanats		
Dirt roads	Two sea lights	Residential areas (and related services)

(Afshar Sistani, 1991: 39 and 243)

The rest of Kish lands, which constitute its dominant surface, are devoted to utilized lands and scattered vegetation (Caseruni, 1988: 111). As a result, during this time period, user change was not really existed or was very limited, and the coasts also often maintained their natural form.

• Second Period

The second period of Kish, which began in the late 1960's and actually in the early 1970s,

can be called recreation Kish, which by establishing the organization and allocating financial mainly governmental resources, Kish became a aristocratic tourism environment at a relatively short time. During this period, the use of space was developed for the establishment of recreational activities and temporary residences and various infrastructural and communicational services, and new urban elements were established in the island, especially in its north and northeast based on a comprehensive plan. In this regard, the largest settlement of Kish, namely Masheh and Sejem which were in prestigious positions and whose lands and neighboring coasts were one of the most privileged and valued lands of the island, was destroyed and its inhabitants were transferred to a new and planned residential area in the east of Seffeyn. In this period, in spite of the considerable occupancy of the land by entirely new users, the significant part of the land of the island was still scattered vegetation and forests, and a small part of the land belonged to the human-made environment. The island's occupancy rate in this period has been computed the maximum about 81%. The major occupants of the land at the end of this period are the following elements:

Water facilities	Administrative buildings (county office, customs, organization of civil, media, etc.)	Travel band villas	Old Seffeyn, new Seffeyn and Baghoo	Organizational houses
Fisheries facilities	Hotels and motels of Kish	Royal Palace, etc.	Airport	Seffeyn market and the French people
Training sections of the new Seffeyn	Air Force facilities	Casino	Harbor and Customs	Forested lands
Clinic	Agricultural lands and gardens of Seffeyn	Imperial staff's Camp		

And asphalted roads, which provided communications, airport, Seffeyn's harbor and tourist band (ibid: 881). With the advent of the revolution, Kish developmental constructions were stopped for about a decade.

• Third Period

The third period, which began almost after the early 1990's and can be called Kish Growth Period, has seen observed the widespread developments in how the island's land was used. These developments were happened for turning Kish into an industrial business free zone and removing it from isolation and stagnation. During this period, commercial and business activities increased unprecedentedly and the organization's policy change in terms of land ownership and permissible definitive assignment of island lands for a variety of uses has been very effective in increasing investment in various fields, especially in the field of tourism, commercial and residential activities. At this time, as a medium sized urban environment, the various types of urban utilities were established in a short time in Kish, including: industrial, workshop, recreational, sporting, bicycle, official, higher educational and cultural applications. As it will be mentioned, the vast parts of Kish, especially the eastern and northern sides of the island, were allocated to residential, tourism, commercial users, as well as foresting purposes. In this period, in view of the widespread construction, some parts of Kish have been similar to a large construction workshop, and at the same time, the various applications have been dispersed in the southern and western parts and in the northern and eastern half. Of course, there are still many parts of the island remaining waste (Ganou Consulting Engineers, 1992: 59).

4. Lands and major user groups

Kish can be considered a relatively unconstructed environment. Of its 970 hectares, about

6,880 hectares are waste areas, forests, gardens and agricultural lands, with a dispersed vegetation covering 75 percent of the whole island. Only 2,210 hectares of the island are constructed. The main users of Kish can be divided into the following groups:

- Residential and tourism
- Industrial, workshop and service
- Freight and warehouses, waste and dispersed vegetation lands
- Forestry, agriculture, garden and green environment
- Other, including urban and military installations and facilities, and so on

5. User changes in coastal areas

Since most of the constructions of Kish Island have been made on the edge of sandy coasts, these facilities have added to the speed and intensity of coastal deformation, and it can be said that human-made constructs have had a direct impact on morphological change of coastline, and the user change of lands from natural to artificial form has changed the shape of the coast. Therefore, on sandy coasts where morphological changes can be made due to the shape, structure and type of the coast, if the potential of carrying the sediment parallel to the coast is performed and adequate sediment resources exist, and if coastal constructs preventing the flow of sediment are constructed, some changes have been made on the two sides of the construct as erosion and coastline's retrogression or sedimentation and coastline's progress that the amount and status of the changes will depend on the direction of the transfer of net sediment as well as the amount of carrying potential (Sazeh Pardaz consulting engineers, 2007: 386). In the following, some instances of the made changes on sandy coasts caused by human-made constructs have been showed.

• Sediment on the West Coast of Kish Commercial Harbor

The comparison of satellite images of the commercial harbor (located in the northeast part of the island) in the years 1987 and 2004 shows that in the west of the harbor, there has been a relatively small sedimentation and coastline has been advancing. The transport the net sediment parallel to the coast also justifies that in this part of the coast, the direction of sediment transport was from the west to the east and accumulation of sediments in the west of the western arm of the harbor was natural (Mojahed, 2010:163). The left figure shows that the Free Zone Organization has completely filled the left side of the harbor with soil, and this is a perfect example of human-made constructs in this part of the coast.





Figure 2, The sedimentation in the west of the commercial harbor (middle) based on the image from 2004 compared to the image from 1987 (right) (Source: Sazeh Pardaz Consulting Engineers) and the left image from 2016 (Source: google earth, 05/16/2016)

• Changes made on the coast around Dariush hotel

Satellite images show that the coast opposite to Dariush hotel (located in the east of the island) can be considered as a disturbed coast due to the constructions being performed for tourist attraction. The main change clearly observed in this area of the coast is the construction of a breakwater and in the following, the sedimentation on the east coast and less erosion in its western coast.

Figure 3, Changes made on the coast opposite to Dariush Hotel (Source: Sazeh-Pardaz Consulting Engineers, 2007)



Figure 4, Changes made on the coast opposite to Dariush Hotel (2016) (Source: google earth, 05/16/2016)



- **Coastline changes around the Pavion Pier**

The private pier of the Pavion is located in the east of the island, and in front of it, a rocky construct has been constructed that the shape of its end is similar to the anchor of a ship. This construct has caused a wider sedimentation on the southern coast with less area on the northern coast. The sedimentation on its southern coast is parallel to the coast due to the south-to-north direction of sediment transport that due to the obstruction of its movement by the construct, sedimentation has been done on its southern coast. Local sedimentation on the northern coast and immediately after the stone construct is related to the specific shape of the forehead of this construct. In this way, the shape of the rocky construct at the end of it has caused the north coast (immediately after the construct) is located opposite to the propagation of the eastern to southeast waves in the shade of the rocky construct and the erosion of these waves disappears in the north coast, and in contrast, the transported sediments by the flows from the northeast waves create local sedimentation on the north coast of the construct (ibid., 166-167).

Figure 5, Sedimentation around the Pavion Stone Pier (Source: Sazeh Pardaz Consulting Engineers, 2007)



- **Changes in the position of the coastline on the coast around Simorgh Hotel**

On the southwest coast of the island and opposite to Simorgh hotel, a rocky recreational pier has been constructed, and in the area of the coast in accordance with the direction of northward movement of the sediment, sedimentation has been created on the south of the pier.

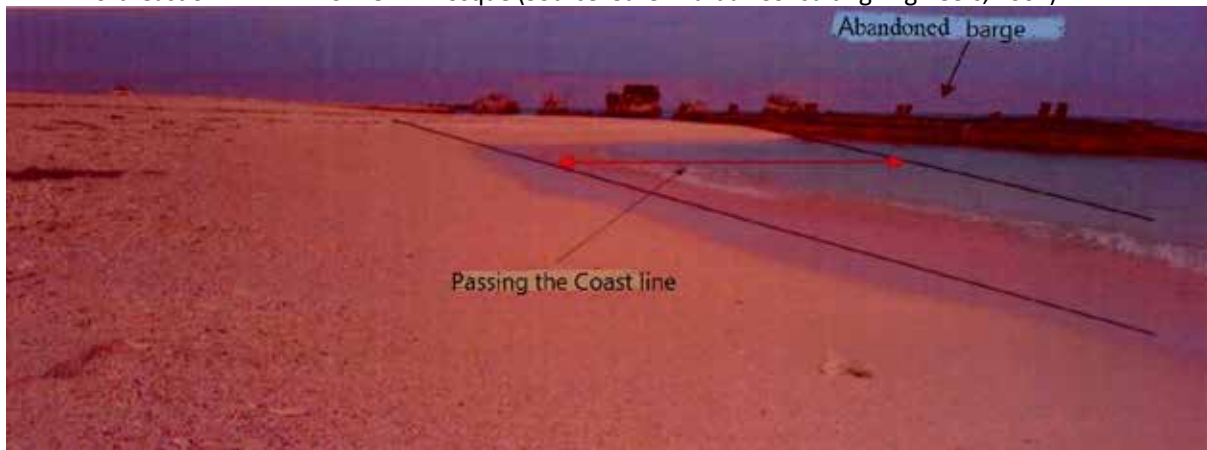
Figure 6, Sedimentation manner on the southern coast of Simorgh Hotel's Pier (Source: Sazeh Pardaz Consulting Engineers, 2007)



- Changing the position of the coast line behind an abandoned barge on the eastern coast
Above the new women's beach, there has been a barge (floating barge for transportation)

being abandoned along the sandy coast and parallel to the coast. This barge, similar to a parallel breakwater, through creating a quiet area between the coast and the barge, and dispersing the perpendicular waves to the coast, has led to the formation of a phenomenon called Tombolo (a kind of land face resulting from sedimentation).

Figure 7, The coast being advanced behind the abandoned barge parallel to the coast in the northeast of Amir Al-Mo'menin mosque (Source: Sazeh Pardaz Consulting Engineers, 2007).



Data analysis

In the present study, next to the classification of the strengths and weaknesses and the existing opportunities and threats, the matrix of strategies corresponding to the position is presented in the table below.

	Strengths	Weaknesses
SWOT	<p>High tourist attraction in the year due to the natural and ecological position and being located in the waters of Persian Gulf as the only coral island in the country.</p> <p>Various marine ecosystem and coral structure</p> <p>Underwater rich life, native vegetation, proper coastal topography</p> <p>Wonderful sandy and coral coasts and clean waters</p> <p>Historical and cultural attractions, swimming and recreational use in the cold months of the year</p>	<p>Lack of coherent and consistent skeletons in the allocation of appropriate space and users</p> <p>Failure to observe the principles of users' adjacency and the lack of rules on the preference of users at the time of land allocation (such as the industrial zone in the vicinity of the historic city of Harireh and the Olympic stadium)</p> <p>Lack of a hierarchical system in the network of passages and sometimes excessive occupation of space by these users</p> <p>The existence of half-finished and abandoned projects</p>
Opportunities	Target strategies (SO) Optimal and rapid use of opportunity	Strengthening Strategy (WO) Keep the opportunity

<p>Considerable waste land with limited vegetation which covers about 61.7% of the island's total area, allowing for the establishment of a variety of activities and new users.</p> <p>The flexibility of the administrative system and the urbanization of Kish against the necessary changes in the existing users and the previous decisions</p> <p>Extensive coast and potential for recreational and tourism activities</p> <p>Existence of views and fairly original and attractive natural environments by the sea for a variety of tourism and recreational activities.</p> <p>Kish Island being near to the coast of Iran and the possibility of marine transporting activities related to Kish in these coasts</p>	<p>The construction of expensive tourism attractions, including drift and Rally racing in waste lands of the island</p> <p>The attraction of domestic and foreign investors to the island's economic prosperity with the cooperation of Kish Free Zone Organization</p> <p>Providing welfare services for recreational sports and holding various competitions</p>	<p>Allocating domestic lands to build tourism attractions that do not require coastal views</p> <p>The need to implement a balanced land use pattern adapted to demographic, tourism, environmental and economic needs</p> <p>Planning and the need to seriously implement the rules to maintain the coastal area and lift them back to rebuild the coastal area of 120 to 200 meters</p> <p>Controlling future construction in order to maintain sustainable development</p>
<p>Threats</p>	<p>Stability Strategies (ST) Making an opportunity</p>	<p>Avoidance Strategies (WT) Looking for an opportunity</p>

<p>Destruction of coastal lands, environmental impacts and affecting natural views</p>	<p>Keeping facilities and the developing areas off the coast line (Comprehensive Plan of contour line +2 meter) and protecting them from the areas with high risk and exposure to environmental hazards through observing coastal area to construct behind this line.</p>	<p>Planning and proper management for land use allocation</p>
<p>Disruption of wildlife settlements (including turtles and corals) and disruption of their sensitive biological periods</p>	<p>Controlling and monitoring the protected environmental areas, especially during sensitive biological periods</p>	<p>Adopting appropriate rules to avoid dividing the coastal area of the island</p>
<p>Water pollution and the increase in carbon content, sedimentation, soil erosion and pollution making, coastal erosion and degradation</p>	<p>A thorough and scientific study to determine the extent of coastal erosion during certain years and present these changes in the form of charts and specialized report and abandon the construction or reconstruction along the area between the line and the sea</p>	<p>Criteria of appropriate and effective controlling and monitoring to record and report the effects of malicious activities and human development</p>
<p>Destroying Natural Ecosystem</p>	<p></p>	<p>The requirement for the execution of the crimes of delayed constructions and revoking the permits for the buildings that have been abandoned more than the arranged time</p>
<p>Changing land user</p>	<p></p>	<p></p>

SWOT analysis and presenting tourism development strategy in Kish Island

Proposals and initiatives

Initiatives related to land users that must be taken after the adoption of a comprehensive development plan can be summarized as follows:

1. Preparation of improvement, reconstruction and restoration plans to reduce the environmental degradation
2. Serious efforts to protect sea area in construction and tourism projects
3. Preparation of the plans of complexes and service and tourism major elements.

It should be borne in mind that the sea area should be regarded as an essential constraint for the construction of buildings and infrastructural facilities. This constraint is due to two urbanization and natural factors. In addition to the need to observe the tide area of the sea, an area that will go underwater due to the warming of the air and the rise of free waters including Persian Gulf, should be considered as a possible limitation. In Comprehensive Plan, the contour line +2 meter is considered as a definite boundary of the sea, in which no facilities and buildings should be constructed. The proposed boundary of the plan is between 120 to 200 meters, which only the northern and eastern parts are 120 meters, with many constructions built on the margin (the space between Taban Hotel and old Seffeyn) and the observed boundary is limited. In the axis of old Seffeyn, little area has been left out and its precise boundary should be specified in detailed plans. In other places, the proposed area is at least 200 meters (ibid: 79).

Conclusion

Kish Island, considering its natural and ecological position and being located in Persian Gulf as the only coral island in Iran, possessing areas full of unique natural phenomena and maintaining the environmental and marine conditions, attracts many tourists annually, but environmental studies in recent years and the comparison of aerial photographs suggests that the increasing rise of tourists and the establishment of tourism and welfare facilities for them has caused the destruction and deformation of the natural face of the coasts, and the issue undoubtedly makes it a need for planning in the field of sustainable development of the coasts.

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Recebido em 21 de fevereiro de 2019.

Aceito em 22 de fevereiro de 2019.