

SEA RESORT

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Abstract

Over the past decade, ecotourism has largely depended on the environment and the prosperity of local communities. It has always been the fastest growing part of the tourism industry. The concept of ecotourism has become a practical option for enjoying natural and cultural heritage while retaining both. The proposed project creates a new hub in Farasan Island, Saudi Arabia, which able to stimulate the economy and bring benefit to local citizens. The development that combines hotels, commercial and business zone, cultural zone, mixed-use, a variety of mall and restaurants, retail and open space that is integrated with the natural beauty of the island. Several important site evaluation criteria were considered for site selection. This environmental and cultural tourism boom can bring many social and economic benefits to the Kingdom of Saudi Arabia. This includes comprehensively enhancing the vitality of the entire tourism kingdom, creating new jobs and jobs, and improving and strengthening local and national economies. In addition, this may arouse people's attention and interest in environmental awareness and education, and protection of natural and cultural resources.

Keywords -- Farasan Island, Ecotourism, Tourism, Cultural Heritage, Nature, Sea Resort

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INTRODUCTION

A new tourism sector has emerged, namely ecotourism. This tourist prefers to spend holidays, escape from the noisy city life, and enjoy the tranquillity and purity of nature and culture [1, 2]. Ecotourism activities include desert hiking, mountain climbing, bird watching and nature, desert camping, diving, snorkelling, mountain and valley exploration trips, caravan rides through the desert, safari, photography adventures, heritage tours and history and exploring culturally rich areas [3-5]. All these activities provide a wealth of entertainment resources, including new types of tourism activities and destinations.

The Farasan Islands (JazairFarasan) is a group of 84 islands in the Red Sea managed by the Kingdom of Saudi Arabia. The main Farasan islands are 50 km off the coast of Jizan[6]. Many uninhabited islands are breeding grounds for many birds. Although it is not a green island, it has a beautiful coastline and can spend a quiet time, and the rich marine animals can ease the divers' desire. It is also considered to be one of the most beautiful marine areas in Saudi Arabia. It is rich in nature, wildlife and marine life. Visitors can discover the beauty of coral and various beautiful and charming creatures in the nature reserve, or dive into the sea to experience [6].

The approach of this project is to design an environmentally friendly resort in a desert that will serve the environment. The resort is considered a place for entertain the visitors and tourists, and having this project in Farasn Island which the new place for tourism in the Kingdom of Saudi Arabia.

CASE STUDIES

There are two similar case studies are considered due to its unique design concept and attractive structure of development. They are Atlantis Dubai the Palm in UAE and Kuramathi Island Resort in Maldives.

Atlantis Dubai the Palm in UAE

Palm Island is the flagship resort of Palm Jumeirah and the first resort to open on Dubai's Revolutionary Island (Figure 1). The resort was created by the leading international resort developer and operator Kirzner International Holdings Limited.

This is a charming resort with 1,539 rooms. The design was inspired by making the lost city of Atlantis a reality and retaining the iconic design elements of Paradise Island Hotel. The legendary ancient islands used to be in the Mediterranean, Atlantic and even the Caribbean. The Atlantis Hotel 's decoration and art style combine Mediterranean-style art, water living themes and gilded luxury, and whimsical media (such as Dale Chihuly 's glass sculptures), combining traditional Arabic design themes Meet exotic legends [7, 8].

Kuramathi Island Resort, Maldives

Kuramathi is one of the most popular islands in Maldives, ideal for those seeking diversity and leisure (Figure 2). Kuramathi Island Resort is located in North Ali Atoll, surrounded by ocean and acres of tropical plants, as well as magnificent beaches and endless golden sandbanks. The path is set between dense foliage, causing many facilities to be scattered on the island. Visitors can snorkel directly on the stunning reefs on the beach, and water sports include windsurfing and excellent scuba diving. There is also a beachfront infinity pool and a lagoon-style pool shaded by palm trees. The rooms on the island range from simply designed garden villas and beach villas, nestled in lush vegetation. At the same time, it is just a few steps from the beach to the luxurious beach jacuzzi villa facing the lagoon. For the iconic water experience, there is the popular hydromassage pool villa, which sits on stilts and has direct access to the sea [9, 10].



Figure 1. Atlantis Dubai the Palm, UAE [8]



Figure 2. Kuramathi Island Resort, Maldives [10]

SPACE PROGRAM

This project consists of five main important components namely residential zone, entertainment zone, outdoor activities, mosque and clinic. Each of the primary zones has its subzone for various activity and purpose. Table 1 tabulates the space diagram of project.

Table 1. Space program

Zones	Sub zones	Area (m ²)	Area of each zone (m ²)
Residential zone	Main Public Facilities	680	29964
	Administration	244	
	Guest room	3710	
	Chalet villas	20500	
	Restaurant & café	2430	
	Spa & Salon	800	
	Sport & fitness	680	
Entertainment zone	Services and maintenances	920	9937
	Shopping mall	2690	
	Restaurants core	1490	
	Aquarium	5367	
Outdoor activities	Diving center	390	4907
	Beach sports activates	480	
	Water park	3687	
	Dolphin bay	740	
Mosque			540
Clinic			230
Total			45578

There are several hotel standards were considered in this project. The overall circulation layout should be convenient for activities, guests, employees and maintenance personnel should be separated. This not only avoids disturbing guests, but also allows effective service. The circulation of residents and non-resident guests is separate; for example, through direct access to restaurants and banquet halls. This avoids crowding in the main reception area and provides better control and supervision. The corridor shows the general relationship covering the entire hotel. The circulation of public places should be through other areas such as lounges or shopping areas, or special-purpose areas such as halls.

The bedroom is the heart of the hotel industry. For flexibility, most rooms have a double bed or twin beds. The bedroom

usually has an en suite bathroom. In the preliminary calculations, it can be assumed that the capital cost of the room is approximately 1,000 times the room price per night.

Multi-function rooms are usually connected to business facilities because they are also used for meetings and so on. However, due to the high cost of providing these meeting rooms, these large meeting rooms must be designed to be multi-functional and must be used frequently. They may need to adapt to the needs of banquets, dances, conferences or exhibitions. The floor may need to be replaced, for example by replacing the covering. Furniture storage requires a lot of adjacent space. It may be necessary to use sliding screens to separate the rooms, but the sound insulation is poor and it may not be possible to use both parts at the same time. Usually, a separate entrance is required from the outside, and there must be at least two emergency exits.

Regarding the design standards of the food court, there are large halls that can accommodate small shops selling various specialty foods. Besides that, the customers can sit in the restaurant to eat or take away food. The food court has an attractive display effect and a market-style environment, provides a pleasant shopping environment, and can be added in other supermarkets outside the checkout. The food are mainly fresh or cooked in the factory, so one day of trade storage space is sufficient, and delivery is usually carried out in the early morning. A typical food court may include bakeries, butchers, cafes and bars, deli snacks seafood, fruits, vegetables, flowers, etc.

Several design of restaurants standard such as the space requirements. To be able to eat comfortably, a person needs a table about 60 cm wide by 40 cm deep. This will allow enough space between adjacent diners. Although it is sometimes necessary to leave a 20cm space in the center for dishes, the total width of 80-85cm is suitable for the dining table. There are six or eight sides around the table, with a diameter of 90-120 cm, which is ideal for four people to dine and can also accommodate one or two diners. So, in general, a person requires- as an average- a space of 25m² from the overall space of the restaurant. In addition, the function, organization and capacity of the restaurant kitchen depend primarily on the amount of customer seating, customer expectations and raw materials that must be freshly prepared, and the frequency of customer replacements throughout the day.

Regarding the design standard of shops, the market can be built in streets, squares and open spaces. The booth includes erected booths, renovated vans and trailers, which are lined up along the curb or back to back between the aisles. A small store refers to a store with a sales area of less than 280 square meters and no more than three stores, one of which may be a basement. Shops with fewer than 20 or 10 employees on the first floor usually do not need to be fireproof. In addition, the shelf from which the customer picks up the goods should be no higher than 0.8m above the ground and no less than 0.3m above the ground. Attention must be paid to the circulation routes of large shops. They should start with pulling the trolley / shopping basket and ending with the checkout. All stores need some regulations to handle the goods. These requirements may vary from off-road delivery of small units to complex operations performed by large retail enterprises.

SITE SELECTION AND ANALYSIS

It is very important to select the proper location for any project to function successfully as well as to add the aimed values to the overall location and its inhabitants. This project specifically its location is restricted to the sea according to the functions it holds. Accordingly, the site will be placed by the sea and make a good connections with the island landmarks. Generally, the site selection should fulfil certain requirement such as the availability of road, water, sewage and electricity infrastructure supporting.

There are sufficient land and site development costs. Temporary land use should include sufficient space for both the currently planned waterside and onshore facilities and for future expansion. Since Farasan is still a neutral place that has not been touched by man works; the selection of site should consider protecting the natural water life and environmental current conditions. The local citizens shell acceptance and their willingness to accept the new proposed facilities. It should consider the distance between all the targeted cities that the project is willing to connect Farasan with either national or international. Figure 3 demonstrates the three proposed sites location in the Farasan Island, Saudi Arabia.



Figure 3. Three options for the proposed project

Figure 4 shows site 1 located on the south western side of the island. It is characterised by the cleanest shores and being in the zone of the future development plan of roads, infrastructure and tourism. Figure 5 shows site 2 located on the west side of the island close to the most populated square in it and it is accessed easily by the current road map. Figure 6 shows site 3 is located on the east side of the island close to the existing boat deck which is closest location to Jaizan port.



Figure 4. Site 1 [11]



Figure 5. Site 2 [12]



Figure 6. Site 3 [13]

This project considered eleven site evaluation criteria for site selection. The site criteria are rated with the weighting factor from 1 to 3, where 1 is least important, 2 is average important and 3 is most important. The first criterion is accessibility. It is critical to select a site that could be easily accessed from the countries where are located on the coastline of the Red Sea as well as the Kingdom's coastal cities. Safe access to the island should be noticed while selecting the boat terminal and the whole development in general due to the great existence of coral reefs.

The second criterion is views. In order to market Farasan as the future touristic Island in the Red Sea, there should be attracting views that are already exist as a natural source of beauty. It should be studied how to manipulate the wanted views and avoid the unwanted ones. And since the project is mainly depending on the marine services, it should be placed in an area that make use of the existing recreational areas if there are ones and create others easily and creatively on the direct seashore.

The third criterion is demographic pattern. The site should be located where people can easily reach it and conduct other activities during the same trip, a place where people naturally converge. In this project, it could be placed in a location that creates a new spot of activities later due to the rareness of activities and services in the island.

The fourth criterion is surroundings of site. What surrounds the site is critical to understand where to place what facility in order for it to benefit the project and the users. In this type of project that represent a gat or future spot of interest, it is preferable to place the project in a location that connects it with the important landmarks and points in the island to market them and attach them to the future plan.

The fifth criterion is utilities. In order for a project to function correctly, the presence of electrical, water, gas, sewer, and other services should be existed in the place. Since Farasan is somehow a neglected island, most of the areas there lack the basic infrastructure needed for any project specially a harbour.

The sixth criterion is visibility. The project is not located in the middle of a city to be a landmark for the city citizens or the visitors. Farasan is an island that has a small number of populations and a very limited built-up area that does not affect the options of making the project a landmark or not. However, if considered the future plan, the project could be the landmark for the first development seed for the island.

The seventh criterion is site topography. The coastal sites are usually characterized by a different slope and topographic levels that could be used in design or could be neglected for design wise.

The eighth criterion is image and visual quality. The overall image of the project is highly important in this type of projects in order to serve its aim which is depend on the attraction of the national and international audience. Marketing the project through the high visual quality is highly recommended in this project.

The ninth criterion is future development plans. Considering the proposed plans for developing the site "if exists" is very important in order to make use of them as a future development for the project or the project itself could be integrated with the future vision of the area.

The next criterion is noise levels. The project in itself is considered as a noise source and this should be taken into consideration in placing it far enough from residential areas.

The last criterion is shape and site proportions. Considering the shape of the site is not recommended in this case because there will be a lot of open areas and master planning that does not require certain shape or restricted site proportions. The site evaluation result is tabulated in Table 2.

Table 2. Site Evaluation

Criteria	Weighting Factors	Site 1	Site 2	Site 3
Accessibility	3	12	15	9
Views	3	15	12	9
Demographic Pattern	3	12	15	9
Surroundings	3	9	12	9
Utilities	3	12	15	9
Future Development Plans	3	15	12	9
Image and Visual Quality	2	15	9	12
Visibility	2	10	8	6
Topography	2	10	8	6
Noise Levels	1	5	4	3
Shape and Site Proportions	1	5	4	3
Total		120	114	84

Based on the site evaluation result shown in Table 2, site 1 is selected for project location. One of the effective factors on this site is the massive existence of coral reefs around the island shores. The selected site has a sandy and clean shores that are perfect for swimming and water activities that are part from the marina which is one of the development parts.

The site is located away from the pollution sources that are caused by the water station and the fish loading deck. At the same time, the site is on stable line that is not affected by the waves' movement that causes corrosion the shore line. One of the most important advantages of this site is its location on the area of possible connection to the international waterway. The site also is located in an area that is special in its natural beauty and the massive existence of archaeological features.

The ministry of economy and planning has a future plan for the development of Farasan. They are basically focusing on improving the roads and the infrastructure of the island as a first stage to have it ready for the investments and make the environment permeable for the future ideas. The selected site is already located in an area that is planned as a centre for the tourism development in the future which will create a good opportunity for the success of the plan. In the future plan, there is a suggested airport located near to the selected site which will energize the project and connect the project to the visitors coming from the different areas of the Kingdom and other

countries. The site also is close to a centre for the ship maintenance that is also suggested in the future plan and this will offer easy and near maintenance services for the yachts and ships.

The climatic analysis raised an important point that is the wind and the massive sun light has no built areas that could protect the project users from the excessive sun and exposure. This point should be taken into consideration in design to create a comfortable environment for the visitors.

For the SWOT analysis, the strengths is the site it located on the area of possible connection to the international waterway. The weakness is the site location is further away from Jaizan than the old location of the port. While, the opportunities of the selected site is the area is planned as a center for the tourism development in the future. The threat of the selected site is no built areas that could protect the project users from the excessive sun and exposure.

ZONING AND PROJECT DESIGN

Figure 7 shows the site zoning of the project. The entertainment zone located at the middle of the site and close to the beach. The entertainment zone is surrounded by clinic, mosque and residential zone. Figure 8 and Figure 9 demonstrate the site plan and main perspective of the project respectively.

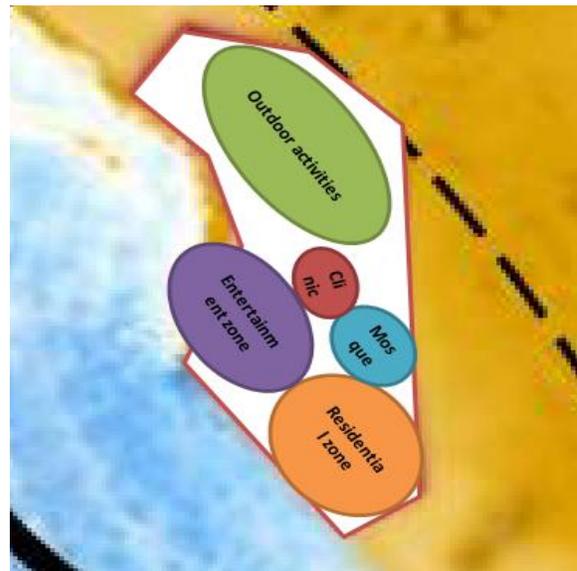


Figure 7. Site zoning



Figure 8. Site plan



Figure 9. Main perspective of the project

CONCLUSION

The proposed project creates an inspiring environment that gathers people with all interest of many activities in one place as well as enjoying the aquarium. The main zones covered in the space program are residential zone, entertainment zone, outdoor activities, mosque and clinic. The appropriate site location is chosen based on the site evaluation criteria of accessibility, views, demographic pattern, surroundings, utilities, future development plans, image and visual quality, visibility, topography, noise levels, and shape and site proportions. While Farasan Island will create a new hub for tourists and Saudi citizens to be economically developed and culturally connected.

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