Aqaba Ecotourism Development Plan
2014
Mainstreaming marine biodiversity conservation into coastal zone management in the Aqaba Special Economic Zone Project

The goal of this project is to mainstream biodiversity conservation in order to promote more effective and integrated management of the coastal zone in the Aqaba Special Economic Zone. The strategy to achieve this goal has four primary components: development and improvement of knowledge-management systems for coastal and marine biodiversity, promotion of biodiversity friendly investment and development, improving institutional capacity for integrated coastal zone management and biodiversity conservation and coral reef protection.

Copyright © 2014

All rights reserved. No part of this publication may be produced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior permission from Aqaba Special Economic Zone Authority and United Nations Development Programme. The views expressed in this publication are those of the author and do not necessarily represent those of the United Nations Development Programme (UNDP), the report is the work of an independent team of authors sponsored by UNDP.
10 Objectives of Aqaba Ecotourism Development Plan

2.0 Aqaba Informative Background
2.1 Governance, Location, Culture & Demography
2.2 History and Archaeology
2.3 Geology, Vegetation, Hydrology & Waste Water Treatment
2.4 Environmental Policies & Institutional Context
2.5 Marine Biodiversity
2.6 Coral Reef Translocation

3.0 Tourism in Aqaba
3.1 Linkages with Jordan Tourism Strategy
3.2 Aqaba Tourism Analysis
3.3 Eco-Labeling & Certification

4.0 Ecotourism & Sustainable Tourism
4.1 The Need for Alternative Tourism
4.2 Ecotourism Concept
4.3 Tourism, Ecotourism & Sustainable Tourism
4.4 Ecotourism Destination Planning Elements
4.5 International Ecotourism Market
4.6 Ecotourism in Jordan

5.0 Aqaba Tourism Opportunities & Challenges
6.0 Development Plan
6.1 Adaptive Planning Key to Success
6.2 Development of Leadership
6.3 Development Goal & Objectives
1.0 Objectives of Aqaba Ecotourism Development Plan

“Aqaba Ecotourism Development Plan” is the outcome of the Aqaba Special Economic Zone Authority (ASEZA) cooperation with United Nations Development Program (UNDP) project entitled: “Mainstreaming Marine Biodiversity Conservation into Coastal Zone Management in the Aqaba Special Economic Zone”, which is aiming to “Internalize biodiversity as an asset and value for economic development and promoting more effective and integrated management of the coastal zone in Aqaba”.

This plan promoted for the maintenance of marine biodiversity in the ASEZ, through providing options to assist taking pressure off the coastline, mechanisms to promote marine-biodiversity friendly tourism that focuses on Ecotourism options and the environmental image of Aqaba, as well as targeting Ecotourism and marine Ecotourism markets.

This plan considered as well the Ecotourism capacity needs assessment for ASEZA tourism department and Marine Park staff in the fields of Ecotourism/ sustainable tourism development and certification, providing bases for capacity development strategy and Action plan.

This development plan was presented, reviewed and endorsed by related different stakeholders through consultative workshops conducted in Aqaba during preparation of the plan and beyond obtaining feedback.
2.0 Aqaba Informative Background

2.1 Governance, Location, Culture and Demography

Under the direction of His Majesty King Abdullah II and in February 2001 the Aqaba Special Economic Zone Authority (ASEZA) was established as the statutory institution empowered with regulatory, administrative, fiscal and economic responsibilities for the Aqaba Special Economic Zone. The purpose of ASEZA is to transform Aqaba into a world class Red Sea business hub and leisure destination. In addition, it aimed at enhancing the quality of life and prosperity of the Aqaba community through sustainable development. Central to this mandate was to see Aqaba emerge as a competitive international investment location and the driving force for the economic growth of Jordan. ASEZA organizational structure is made of the following commissions:

1. Administrative and Finance
2. Customs and Revenue
3. Environment and Health Control
4. Investment and Economic Development
5. Land, Infrastructure and Services

The city of Aqaba is the southernmost part of Jordan, and at the north eastern tip of the Gulf of Aqaba, on the Red Sea. The total area of Aqaba is (6905) km², while Aqaba’s territorial waters are around (94) km². The coastal line of Aqaba is very limited, extending to around 27 km, provides Jordan with the only access to the sea for activities such as ship transport, fishing, tourism and recreation beside different industrial developments.
Owing to Aqaba’s location on a major trading route, Aqabawis are a unique mixture of Bedouin, Hijazi (of Arabian Peninsula), Egyptian and Levantine origins. They hold dearly to the customs for which Arabs are known; pride and hospitality.

Aqabawis enjoy nothing more than making sure their visitors feel at home and enjoy their visit. Aqaba’s cuisine is marked by frequent use of two main Aqaba ingredients: either fish or dates. Nevertheless, there are unexplored potential for Aqaba cuisine due to this cultural mixture.

According to the Jordanian statistics department, Aqaba’s population by the end of 2012 was around (139,000) persons While males consist around (77,000) of this number, females number is around (62,000) and youth numbers (between the ages 15-65) of both gender are more than (63%). While Unemployment in Aqaba for the year 2012 is above (15%), where unemployment amongst women is around (21%) and amongst men is more than (14%), however, poverty rates in Aqaba are amongst the lowest in the country with around (11%).
2.2 History and Archaeology

Aqaba contains sites reflecting human habitation back to 4000 BC during the Iron Ages, resulting from the city’s strategic location at the junction of trading routes between Asia, Africa, and Europe. Some Biblical sources suggest that Aqaba was referred to as (Ezion-Geber), where King Solomon built ships to export copper from Araba Valley area to the known world that time, as trading routes developed connecting Aqaba with southern Arabia and Yemen, while the town grew into a thriving city.

The Nabateans populated the region extensively, drawn by the strategic trading location of Aqaba. In Roman times, the great Via Nova Triana came down from Damascus passing through Amman to Aqaba, where it connected with a west road leading to Palestine and Egypt.

During the Roman and Byzantine era, the city continued to be very active, as one of the most exciting discoveries in recent times, archeologists working in Aqaba.
have unearthed what they believe to be the world’s oldest church. Dating from the late third century BC, the 26 x 16 meters structure is thought to be the oldest building built specifically as a church. It is slightly older than the Church of the Holy Sepulcher in Jerusalem, and the Church of the Nativity in Bethlehem, both of which date from the fourth century.

The early days of the Islamic era saw the construction of the city of Ayla. The ruins of Ayla, unearthed in the mid-1980s by an American-Jordanian archeological team, are a few minutes’ walk north along the main waterfront road. By 1170, Aqaba was conquered by Salahuddin. The Mamluks took over in 1250, but by the beginning of the sixth century it had been overtaken by the Ottoman Empire. The city then declined in status and for 400 years or so it remained a simple fishing village of
During World War I, however, Ottoman forces were forced to withdraw from the town and the Aqaba Fort, after a raid by the Arab Revolt Forces. In 1965, King Hussein traded 6000 square kilometers of Jordanian desert with Saudi Arabia for another 12 kilometers of prime coastline to the south of Aqaba. This gave Jordan’s only port room to expand and added the magnificent Yamanieh coral reef to the Kingdom’s list of treasures.

From the Collection of Aqaba Heritage Museum
2.3 Geology, Vegetation, Hydrology & Waste Water Treatment

Jordan’s oldest rocks (of Precambrian age, 570 million years old) form the mountains behind Aqaba. They mainly consist of granites, which are criss-crossed with sheets of intruded igneous rock, known as dykes. At the time of dyke formation, the granitic rocks were still deep below the surface. The rocks were affected by great tensional stresses, and the cracks which this created where subsequently filled by molten rock. Today, the dykes form the characteristic dark stripes across the hillsides.

Intense fluvial erosion of the Aqaba granites has produced extensive alluvial fans which fill the wadis and mantle the lower hill slopes. With the availability of water supplies at depth beneath these fans, acacia savannah woodland
residential areas. The largest plantation in Aqaba is the palm plantation project, in the northern part of the town to serve two reasons: to utilize the treated waste water of the Aqaba Waste Water Treatment Plant, and to create a barrier against the wind borne sand coming from Wadi Araba.

The second large one is the private plantations called (Al Hafair) located to the north-east of the Gulf of Aqaba which are planted by the inhabitants of the city; where about 20 randomly distributed very shallow wells (1-3 meter depth) were dug to supply irrigation water. These plantations are overlooking the coastal area at about 50-100 meter away from the shore. Palm and some other seasonal plants are planted.

The water supply of the city of Aqaba before 1960 was covered from the local shallow aquifer in the town, where some distributed shallow dug wells existed. Some of them are close to the shorelines, in Al Hafair, and others were dug in the surrounding of some houses and were manually pumped, they were used to cover the need of the local population, and to irrigate the light plants. Then during 1980’s, some wells were drilled in Wadi Al Yutum aquifer to meet the increase in water demands of the city. That was the situation till the city was supplied from Al Disi aquifer (80 km north east of Aqaba). It presently supplies Aqaba and the industries on the south coast with their needs of fresh water.
Aqaba was not connected to any type of waste water treatment plants till 1987, when a treatment plant was constructed north of Aqaba on an area of about 0.21 km² at the end of Southern Wadi Araba, about 2 km from the bay, to treat a flow of 9000 m³/day at that time. The Aqaba treatment station works according to the natural and mechanical purification methods. Currently, most of the city is connected to the treatment plant.
2.4 Environmental Policies & Institutional Context

As seen in ASEZA regulations, the natural environment of Aqaba is very important and significant component, particularly in terms of marine, flora and fauna and some terrestrial habitats, species and the landscape. Therefore, it is acknowledged that all developments remain environmentally sustainable in the long term as the environmental resources of the area are themselves an integral part of its attraction to investment. Therefore, a directorate under the supervision of Environmental Commissioner was established with the right to permit or reject the projects according to their environmental impacts.

Environmental protection was further strengthened with the ASEZA Environmental Protection Regulation No. 21 for the year 2001. This regulation requires that all existing and potential investors within the zone satisfy the Authority with regard to environmental effects and their capacity to comply with all the relevant environmental requirements, rules and instructions within the zone.

This regulation provided the overall basis for the environmental policies in ASEZA and lists a number of prohibited acts regarding waste management, use of sea water, and emission of harmful substances to the environment. The regulation addresses the legal framework for environmental management and monitoring in the zone including environmental clearance and post-clearance phases of the economic activities in the Zone.

The regulation also details appropriate measures to prevent environmental pollution and protect the marine resources, and sets out a legal framework for the imposition of penalties for pollution incidents.
ASEZA has adopted a number of policies associated with the control, management and protection of the natural environment. Aqaba environmental policies require preservation and protection of the environment and the sustained development of the Zone’s natural resources.

The water policy requires the protection and management of groundwater resources to bring down annual abstractions from the various renewable aquifers to a sustainable rate, as well as the development of wastewater management and reuse schemes.

Water conservation is to be enhanced by managing both supply and demand and efficiency of use through the utilization of improved water-saving technologies, management practices, and the modification of current practices through public awareness programs.

The energy conservation policy promotes the provision of adequate energy to consumers at the least possible cost, while attempting to achieve sustainable development of the energy sector and to meeting the needs of socioeconomic development in the Zone.
ASEZA has adopted a stringent discharge policy of “Zero Discharge” to the sea in order to preserve the marine environment through the complete elimination of marine pollution. The Gulf of Aqaba is defined as a ‘special area’ according to the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) signifying that discharges of oil are prohibited from vessels.

As the ASEZA Environmental Protection Regulation No. 21 for the year 2001 is considered a very solid foundation for Aqaba environment protection handling all types of developments, the articles related to Environment Impact Assessment (EIA), Environment Impact Statement (EIS), Environmental Audit (EA) and Marine Environment Protection are identifying, examining and defining environmental, social and economic impacts of different types of developments in Aqaba. Next to that it is providing the mechanisms for continuous monitoring for the level of compliance of these developments.
2.5 Marine Biodiversity

The most significant feature of the marine environment of Aqaba as Jordan’s only port to the sea is the coral reef ecosystems. Aqaba reefs lie within the Red Sea which is designated as a World Wide Fund for Nature global 200 Eco-Region on account of its unique marine biodiversity. The Gulf of Aqaba is a separate bio-geographic zone within the Red Sea, and is of global significance in having the northern-most latitude reefs in the Western Indo-Pacific.

Marine endemism is relatively high in the Red Sea; for instance, there are an estimated 25 species of fish that occur only in the Red Sea, which are found in the vicinity of the Jordanian reefs. The Indo-Pacific humphead wrasse Cheilinus undulates, listed as Endangered by IUCN, is found on these reefs, as well as globally-threatened marine turtles.

Equally important is the high resilience demonstrated by these reefs, which - to date - have been unaffected by bleaching and other effects of global warming. The Jordanian reefs are thus a vitally important potential reservoir of reef species, and a natural laboratory for the study of climate change impacts on coral communities.

More specifically, this coastline supports small but important coral reef communities comprised of a discontinuous belt of fringing coral reefs with two different morphological reef units; the coral reef flat and the outer reef slope. This coral habitat is one of the most diverse high-latitude reef systems in the world.
The complexity of these ecosystems is illustrated by high biodiversity, with approximately 250 species of stony corals, and 180 species of soft corals found on reefs in the Red. More specifically, the reefs in the Gulf of Aqaba are reported to support high coral diversity with varying records that range from approximately 129 species of hermatypic corals, and in the order of 120 species of soft corals to more recent records of 158 coral species from 51 genera. Coral habitats of the Gulf therefore contain a relatively significant proportion of the total Red Sea coral diversity.

The Red Sea coral reefs also support a wide range of associated taxa including echinoderms (sea stars, brittle stars, sea urchins), sponges and molluscs. In addition to the sedentary taxa, there are a number of mobile species that utilise the reefs as places of shelter, for food and other biological resources. Studies indicate that a total of 507 fish species belonging to 109 families are found along the Jordanian coast.

The Red Sea area is incorporated into the World Wildlife Fund (WWF) Global 200 Ecoregion (no. 231). This is attributed to the fact that it is the warmest and most saline of the world’s seas, with no permanent coastal rivers or streams, and partial isolation from the ocean.
The northern limit of the Marine Park is located to the south of the Aqaba Container Terminal (ACT) container terminal and current passenger ferry facilities, in the vicinity of the Marine Science Station, and extends for approximately 7 km to the south. This region contains coral coverage up to 90% in some areas and, consequently, has some of the greatest coral coverage of the Jordanian coastline. Similarly, high coverage of coral habitat continues between the southern limit of the Marine Park and the Saudi Arabian boarder.

Reefs in Aqaba are among the most threatened in the Red Sea because they are shallow, easily accessible, and adjacent to a major population and industrial centre. They are suffering from a combination of factors common to reefs worldwide, that includes sedimentation caused by construction, algal overgrowth due to nutrient enrichment from sewage, physical damage from divers, boats and other recreational activities, and pollution from toxic industrial waste.
2.6 Coral Reef Translocation

The coral reefs of the Aqaba coast are considered the northern border of the occurrence of reef corals, but due to the multi-use nature of Aqaba port (industrial, tourism, etc.,...) that have put forward great challenges for the authorities and the decision makers in the Kingdom of how to use the coast both feasibly, and at the same time environmentally responsible in order to conserve its environmental value. Those needs dictated the need to move the heavy industries and the main marina to the most southern point coast of Aqaba at “Al Dirrah” crossing point with Saudi Arabia.

At the same time, since Al Dirrah is a prime location for coral reef; it has come as an agreement to pay compensation to the damage that will result out of this project and to use the compensation value responsibly to translocate part of the coral reef to the Aqaba Marine Park, and so the “Aqaba Reef Translocation Project 2012” came to light.
in partnership with ASEZA, and after consulting with all related stakeholders, the UNDP commenced the project in 2012 by contracting an expert in the field of coral reef translocation and re-plantation, to design an implementation plan and train a team of local human resources during the Project period. The Project also aimed to create some coral study material units to:

- Improve the uses of the coral reef along the Aqaba coast
- Improve environmental awareness
- Create a trained local community nucleus
The Project was conducted according to the following Steps:

- A Coral nursery was constructed under water.
- A rehabilitation area of destroyed reef was chosen in front of the Visitor Center was chosen to become a new diving area.
- Construction of new man-made reef units started. These model areas created new spots for diving to be utilized for tourism activities.
- 500 reef seedlings were planted in galvanized steel mesh units.
- Five (5) steel mesh “tents” were used to plant reef settlements in the same area.
- A design of “cave” was created using 7 pieces of cement tubes (each 2m long by 2m in diameter). The purpose of these tubes is to create a new tube of diving activity; cave diving. It is supposed to be the first cave of many to come depending on its success Rocks were used on the tubes’ sides where reef settlements were planted on them.
- In total 150 settlements of Al Dirrah coral reef were translocated to the reef reserve no. 3.
- Sea cement - a world recognized method - was used to fix the coral which proved its efficiency and durability.
- An area empty of coral reef was chosen in front of the Visitor Center - the largest so far - was used to translocate coral reef for the sake of awareness and interpretation.
- In total around 5000 coral reef settlements were translocated.
- A monitoring Plan was designed including a periodical cleaning procedure of some predators due to environmental disorders and solid waste left by visitors.
- To ensure the well being of the translocated coral reef a numbering system was used to monitor the rate of growth, changes and adaptation indicators as well as the success of adaptation methods.
- After 3 months of monitoring, the first results have shown that indicators of success; many fish and invertebrates have started to inhabit the coral settlements.
3.0 Tourism in Aqaba

3.1 Linkages with Jordan Tourism Strategy

Tourism is one of the biggest industries and is of vital importance to the national economy of Jordan. The National Tourism Strategy (NTS) 2004-2010, stated that tourism in Jordan as “It is the Kingdom’s largest export sector, its second largest private sector employer, and its second highest producer of foreign exchange. Tourism contributes more than USD 800 million to Jordan’s economy and accounts for approximately 10% of the country’s gross domestic product (GDP).

This strategy worked towards strengthening marketing and promotion efforts, improving the quality and variety of tourism products and services, adopting professional human resource practices across the industry, and conducted important steps in creating a regulatory environment that is more conducive to tourism development. Tourism in Jordan through 2010 was accounted for over 12.4% of Jordan’s GDP.

As part of this strategy, Ecotourism was highlighted as a “segment with ready product” and it was indicated that protected areas around Jordan and the marine park in Aqaba are “central to the destination’s appeal” (NTS 2004-2010, page 29).

However, the National Tourism Strategy 2011-2015, which is considered as a continuation for the old one, acknowledged that “Jordan’s strategic challenges facing tourism development are undoubtedly complex, involving multiple supply and demand factors”.

24 Aqaba Ecotourism Development Plan 2014
Accordingly, its vision for the coming period will be a distinctive destination offering diverse, year-round visitor experiences that will enrich the lives of Jordanians and their guests. This strategy stated that Jordan’s tourism product development approach is intended to:

1. Ensure sustainability, environmental and archaeological protection.
2. Create clusters of relevant and sufficient core, and support products to maximize visitor experience.
3. Ensure the spread of economic and social benefits across the Kingdom via new visitor experiences.
4. Create public-private partnerships for product development and investment; facilitate private sector and community participation in publicly-owned assets
5. Improve visitor services and conservation at key sites quickly.
6. Transform products to experiences according to visitor requirements.
7. Diversify Jordan’s product and service options and establish high quality standards.
The National Tourism Strategy 2011-2015 key activities were to:

- Engage with the private sector to improve the presentation, management & interpretation of cultural resources and key heritage sites.
- Enhance visitor entertainment experiences at key regional destinations.
- Implement national and mandatory best practice standards in hotels and restaurants.
- Develop themed culinary activities and events
3.2 Aqaba Tourism Analysis

Aqaba is a primary tourist destination for local and foreign tourists. Its potential has yet to be fulfilled. The major asset of Aqaba is its diverse tourist potential due to its unique location at the border of desert and sea, and at the crossroads of two continents; interesting topography of mountains and deserts; world-renowned coral reefs; sandy beaches with favorable climate; rich history and culture; clear linkages with Wadi Rum and Petra; and one of the key diving locations in the world.

According to the Tourism Marketing Strategy for Aqaba 2005-2010, the Aqaba Tourism branding was based on sea, sun, sand alongside to the golden triangle (Petra, Wadi Rum, Aqaba), while its marketing strategy was built around four product clusters: “Rest, relaxation, beaches and boats/Diving/Soft adventure and touring Aqaba as a Cruise liner destination”.

<table>
<thead>
<tr>
<th>Description</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rooms</td>
<td>411,931</td>
<td>466,620</td>
<td>508,092</td>
<td>487,674</td>
<td>507,233</td>
</tr>
<tr>
<td>Arrivals</td>
<td>435,838</td>
<td>473,419</td>
<td>597,111</td>
<td>464,167</td>
<td>481,365</td>
</tr>
<tr>
<td>Bed Nights</td>
<td>812,801</td>
<td>896,677</td>
<td>1,014,218</td>
<td>985,416</td>
<td>1,010,451</td>
</tr>
</tbody>
</table>

*Source: ASEZA*

*Table (1) Aqaba Bed/Nights figures (2008-2012)*
In order to supply for this target, large investments have been deployed, especially hotels and resorts development in different parts of the coastline area. Nevertheless, the draft update of (Aqaba Marketing Strategy 2013-2015) indicate that “Over the period 2008 to 2012 Aqaba has seen growth in tourism in terms of overnights yet a very slight increase in regards to occupancy. Bed nights have fluctuated dramatically mainly due to the adverse effects of external effects such as the Arab Spring and the economic crisis” (Aqaba marketing Strategy 2013-2015, page 8).

A consultative workshop was conducted end of 2013, at the Marine Park premises in order to discuss potential and challenges of Ecotourism development in Aqaba, joining related stakeholders. The workshop participants indicated that Aqaba is providing and can provide for a long list of activities, such as:

<table>
<thead>
<tr>
<th>Diving</th>
<th>Fishing</th>
<th>Meditation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine museum</td>
<td>Aquarium</td>
<td>Aqabawi cuisine</td>
</tr>
<tr>
<td>Connections with Wadi Rum</td>
<td>Bedouin life style</td>
<td>Aqabawi music</td>
</tr>
<tr>
<td>Mountain climbing</td>
<td>Ballooning</td>
<td>Paragliding</td>
</tr>
<tr>
<td>Sand skiing</td>
<td>Star Gazing</td>
<td>Aqaba castle</td>
</tr>
<tr>
<td>Hafaiter</td>
<td>Fishermen Harbor</td>
<td>Birdwatching</td>
</tr>
<tr>
<td>(Doum) palm tree</td>
<td>Aqaba climate, biodiversity, geology and virgin nature</td>
<td></td>
</tr>
</tbody>
</table>
The draft updated Aqaba Marketing Strategy agrees with this potential, but it remarks that “It is generally understood by the industry, that though the potential for Aqaba is high, hotels and resorts in themselves are not generally a motivating cause for travel. Aqaba will not succeed unless it can provide and market a unique, desirable and multi-faceted destination experience that can effectively compete in global markets. Also it states that “It is not viable for Aqaba to compete purely as a Red Sea resort destination, which is perceived, by source markets, and positioned alongside other Red Sea resort destinations such as Taba, Sharm Al Shiekh and Eilat, as a low cost holiday option. If Aqaba is to be competitive, it is critical that it is marketed as a “unique destination and strong brand” (Aqaba marketing Strategy 2013-2015, page 5).

This “product” competition is also noticed by the Aqaba Tourism Product Development Plan that mentions the fact that Aqaba is “A Development within an existing City, which is already a value that none of the five star resorts on the Red Sea have. This allows Aqaba to differentiate itself from its Red Sea competitors. What will differentiate Aqaba from the other Red Sea Five Star Resorts and competitors is Aqaba becoming a “unique Brand by itself”. (Aqaba Tourism Product Development Plan 2007-2011)
The Aqaba Tourism Product Development Plan highlighted an alert to a notable challenge that is “There is an obvious danger that a two-speed Aqaba could develop, with islands of luxury in a city left far behind, the so-called “bubble tourism” phenomenon. An inevitable consequence of this would be the rapid erosion of local support for tourism. It is widely accepted that without local support, tourism becomes unsustainable and cannot have a successful long-term future. Residents play a very important role in the overall quality of the cultural experience enjoyed by visitors”.

The consultative workshop indicated as well to a group of “Aqaba Ecotourism development challenges” that can be summarized in the following ideas:

- Lack of infrastructure
- Specialized land use plan and related polices and standards not available
- Security clearances
- Lack of specialized work force
- Lack of coordination and mainstreaming efforts among different authorities
- Unclear Aqaba experience and branding
- Unclear one unified responsible management/organizational authority

Another development planning challenge can also be highlighted on Aqaba tourism planning is the local tourism that is made of Jordanians coming for different Jordanian cities for vacation and shopping during weekends and holidays, or Aqabawis domestic tourism activities around the year, with lack of attempts made till now in order to have documented statistics or analysis for their volume, numbers and activities.
3.3 Eco-Labelling & Certification

The two voluntary Eco-labelling and certification initiatives in Aqaba are conducted by the Royal Marine Conservation Society of Jordan (JRDES). The two programmes are supervised by a steering committee joining ASEZA and other related stakeholders:

- Green Key is an eco-labeling certificate for tourism facilities that aims to contribute to prevention of climate change and sustainable tourism by awarding and promoting good initiatives. The Green Key aims to change the practices and behaviours of tourism actors including enterprises, authorities, guests, local communities, and to involve them in increasing their responsibility towards their own environment. The Green Key programme started in 1994 in Denmark and was adopted in 2002 by the Foundation for Environmental Education (FEE).

- Blue Flag is a voluntary and exclusive eco-label awarded. The concept of the Blue Flag was born in France in 1985, now it has certificated more than 3200 beaches and marinas in 38 countries worldwide. The Blue Flag works towards sustainable development at beaches and marinas through publicly awarding sites that meet strict criteria dealing with water quality, environmental education and information, environmental management, and safety and other services. A few of the issues covered in the criteria include cleanliness, provisions for waste and recycling, zoning of activities, and environmental education activities for a variety of people.
The Programme has also recently started a voluntary scheme for private boat owners called the Individual Blue Flag, which boaters can fly if they have signed and agreed to follow an environmental code of conduct. Despite toughening criteria, the number of beaches and marinas participating in the Programme has increased. The criteria is updated as needed to keep abreast of new scientific findings, legislation, and generally to keep the campaign participants striving for ever better environmental quality.

The two eco-labeling and certification initiatives (Green Key and Blue Flag) are a very good step towards improving Aqaba sustainable and quality tourism services; nevertheless, ASEZA, with its clear environmental legislations and attention for different impacts on the environment can adopt its own eco-labelling and ecotourism certifications for different tourism developments and activities and can provide opportunities to a wider sustainable tourism certification umbrella.
4.0 Ecotourism & Sustainable Tourism

4.1 The Need for Alternative Tourism

Tourism as defined by United Nations World Tourism Organization (UNWTO) is “any type of travel outside home from more than one night and less than one year”, this travel transformed into an industry by mid 1950s of the last century due to many reasons - including the huge development in transportation types especially airplanes - and the new employment measures that included standard working hours and yearly vacations.

Tourism by 2012 became one of the leading five industries in the world with more than 1 billion travelers, and around USD 1 trillion of tourists’ expenditure. Tourism industry is without doubt one of the main drivers of economy around the world, especially when related to developing countries, and is considered as the primary source of foreign exchange earnings in 46 of the 49 Least Developed Countries. Tourism is a crucial contributor to these countries’ income; up to 70% for the world’s poorest countries. It is also included in the Poverty Reduction Strategies of more than 80% of low income countries.
Tourism is thought to be a “clean” industry without the negative impacts associated with other types of economic development. Relative to some industries this is true. However, the tourism’s impacts are related to the ability to plan for its huge expansion and development needs on one side, and on the other taking the tourism resources use for granted, without considering its ability to be sustainable.

This continuous pressure on tourism resources, especially during the seventies to eighties of the last century, forced hosting countries, scholars, planners and other related tourism components to search for a response to what was usually referred to as “mass tourism”. One response to environmentally and culturally degrading tourism has been to find “alternative tourism”.

For more than a decade, (UNWTO) has been carrying out studies and research, seminars and symposia and producing publications and papers, with a view to assisting governments and tourism enterprises in their efforts to develop tourism in a more sustainable manner, particularly when studies started to show that consumers (tourists) became more aware and sensitive to sustainability issues in general and travel according to environmental and cultural considerations in particular.

Alternative tourism is essentially the antithesis of undesirable tourism, or mass tourism. It ideally results in less severe impacts while still providing positive economic effects. Numerous types of tourism are considered alternative: scientific tourism, geo-tourism, responsible tourism, pro-poor tourism, farm and ranch tourism, village tourism, special interest tourism and others.
4.2 Ecotourism Concept

Ecotourism has been widely promoted as a viable alternative to ecologically and culturally degrading mass-tourism, as a form of sustainable development, which can yield immediate economic returns without risking major damages to local communities and the natural environment. However, a precise and unambiguous definition of eco-tourism and subsequently a common understanding of its meaning and goals do not exist.

The most commonly used definition for Ecotourism is by The International Ecotourism Society (TIES) as: “Responsible travel to natural areas that conserves the environment and improves the well-being of local people”. Nevertheless, there is a general agreement that Ecotourism is nature-based, sustainably managed, inclusive of social and cultural aspects, and educational to tourists.

For the purpose of this report, Ecotourism will be referred to by the following set of guiding principles that can be the base of Ecotourism natural and cultural heritage planning, development and management objectives:

1. Minimizing negative social, cultural and environmental impacts.
2. Reinforcing natural and cultural heritage.
3. Maximizing the involvement in, and the equitable distribution of economic benefits to, host communities (directly and indirectly).
4. Maximizing revenues for re-investment in conservation.
5. Educating both visitors and local people about the importance of conserving natural and cultural resources.
6. Delivering a quality experience to tourists which is reflecting “Green Management” procedures within the day-to-day operations.
7. Encouraging responsible business practices.
4.3 Tourism, Ecotourism & Sustainable Tourism

The position at (UNWTO) is that all tourism activities, be they geared to holidays, business, conferences, congresses or fairs, health, adventure or Ecotourism itself, must be sustainable.

This means that the planning and development of tourism infrastructure, its subsequent operation and also its marketing should focus on environmental, social, cultural and economic sustainability criteria, so as to ensure that neither the natural environment nor the socio-cultural fabric of the host communities will be impaired by the arrival of tourists. On the contrary, local communities should benefit from tourism, both economically and culturally.

Sustainability implies that enterprises, as well as the communities in which they operate, have something to gain from tourism. The sustainability of Ecotourism development and management is, or at least should be, a top priority for all governments - central and regional alike - local authorities, tourism enterprises and their trade associations.

For Ecotourism, sustainability is a much stronger imperative than for other forms of tourism. Yet, as we see in any other form of tourism, unsustainable Ecotourism is practised in many regions and countries, putting at risk the survival of the natural environment that is the very bedrock of the Ecotourism business and, more serious still, detracting from and even discrediting this activity.
4.4 Ecotourism Destination Planning Elements

According to the (UNWTO) Ecotourism destinations must be committed to some or all of the following planning elements:

1. Ecotourism must contribute to the conservation of natural areas and the sustainable development of adjacent areas and communities.
2. Ecotourism requires specific strategies, principles and policies for each nation, region and area. It cannot be developed in an anarchic and disorderly way if it is to be sustainable in the long term.
3. Ecotourism needs practical and efficient systems of coordination between all the players involved, including governments, private enterprises and local communities.
4. The planning of Ecotourism must include strict criteria for territorial zoning, including reserves and low-impact and medium-impact areas.
5. The physical planning and design of Ecotourism facilities, especially hotels and other means of accommodation, restaurants and tourist information centers in national parks, should be carried out in such a way that any negative impact they may have on the natural and cultural environment is minimized; ideally, building materials, architectural styles, furniture and Interior Design should be local, and low-pollution energy sources should be used.
6. Similarly, the means of transport and communication to be used in Ecotourism areas by both tourists and the companies providing services to tourists should have a low impact. Sports involving noisy or heavily contaminating means of transport should definitely be prohibited in these areas.

7. The practice of Ecotourism in national parks and other protected areas (e.g. archaeological parks or places of religious pilgrimage) should strictly comply with the management rules of such areas. Appropriate legal and institutional mechanisms should be established at national and local level to facilitate and make effective the orderly participation of local communities in the processes of planning, developing, managing and regulating Ecotourism.

8. Appropriate legal and institutional mechanisms should be established at national and local level to facilitate and make effective the orderly participation of local communities in the processes of planning, developing, managing and regulating Ecotourism.

9. Consistent with the foregoing, mechanisms should be a set up that would enable a sizeable proportion of the income resulting from the arrival of Ecotourists to be channeled to the local communities and/or, in uninhabited areas of national parks, to conservation of the natural heritage.
10. It is however important to ensure that Ecotourism is a good business, that is to say, that it should also be economically sustainable. In other words, if Ecotourism is not profitable for enterprises it will not be engaged in and yield no benefits for the host communities. It is worth recalling that the Ecotourism business should be highly sensitive to ecological and cultural aspects.

11. All those concerned with the Ecotourism trade, including the host communities themselves, local governments and, of course businessmen, must be aware of the costs of mitigating the possible negative effects of the Ecotourism activity. These effects - and the costs of averting them - should be assessed beforehand, and be included in the cost-benefit analysis of any Ecotourism project.

12. Compliance with tourism regulations should be improved, and be stricter in the case of Ecotourism, combining supervision and monitoring with awareness-heightening campaigns, as well as providing more comprehensive information to Ecotourists and the training of service suppliers. Self-regulation systems should be encouraged and duly checked.

13. Consideration should be given to the prospect of establishing a certification system for self-styled Ecotourism facilities and operations, at least at regional level and possibly also on a global scale, to guarantee that their quality is consistent with Ecotourism principles and regulations.
14. Education and training are prerequisites for a sustainable Ecotourism activity. Executives and managers of companies, as well as their employees and the local population, should receive training on general and specific aspects of Ecotourism, tailored to the needs of each. In particular, Ecotourism requires highly-qualified guides, so far as possible natives of the actual locality or area.

15. Ecotourists need detailed and specialized information, both before and during their trip. The provision of complete, good quality information is one of the elements that differentiate the Ecotourism experience from traditional tourism. Various forms can be used to provide the information, including pamphlets, brochures, books and other graphic material, interpretation/visitor centers or Eco-museums (which ideally should use traditional architecture and materials from the locality), properly signposted nature trails, other interpretation programmes and, of course, guides.

16. Catalogues, pamphlets and brochures on Ecotourism should contain substantial information on the experience to which potential tourists are invited; details on flora, fauna, geology and, in general, on the bio-system to be visited are fundamental to all advertising concerning Ecotourism, without overlooking truthful information on means of accommodation.

17. Both the marketing channels and tools, and the means for promoting Ecotourism products should be consistent with the type of tourism the consumer is being offered, on the one hand, and with the typology of the Ecotourists, on the other. In this segment, certain commercial practices more suited to mass tourism, such as all-inclusive package tours, excessive surcharges for the use of a room by one person and inflexible dates and flight times, are inadmissible.
4.5 International Ecotourism Market

As surveys rarely ask either travelers or businesses specifically about ecotourism, precise statistics are difficult to determine. Ecotourism is frequently lumped together with nature tourism and other forms of ‘experiential’ or ‘alternative’ tourism. At the same time a variety of market studies over the past years have documented sustained interest among consumers in tourism products and services that protect the environment and respect local cultures. The International Ecotourism Society (TIES) reflects the size of international Ecotourism market by the following figures:

- Beginning in 1990s, till now growing 20% - 34%/year, ecotourism/nature tourism was growing globally 3 times faster than tourism industry as a whole.
- Sun-and-sand resort tourism has now “matured as a market” and its growth is projected to remain flat. In contrast, “experiential” tourism—which encompasses ecotourism, nature, heritage, cultural, and soft adventure tourism, as well as sub-sectors such as rural and community tourism—is among the sectors expected to grow most quickly over the next two decades.
According to a 2012 survey, the ‘green’ travel trend is gaining momentum among TripAdvisor members, as 71% said they plan to make more eco-friendly choices in the next 12 months compared to 65% that did so in the past 12 months.

65% of corporate travel executives responsible for more than $10 million in annual travel budgets are in various stages of implementing ‘green’ business-travel guidelines, according to a 2011 survey of Association of Corporate Travel Planners members.

The hospitality industry spends over $7.5 billion on energy each year. Reducing energy use by 10% would result in approximately $750 million in annual savings.

About half the U.S. states have voluntary ‘green’ lodging certification programs, most focused on environmental efficiencies.

Nearly a third of travelers (30%) would choose a destination for a trip because it is considered eco-friendly. Costa Rica is the most popular destination in the world for travelers interested in an eco-friendly trip, according to a 2012 TripAdvisor survey.

In 2011, Barcelona was awarded the first Biosphere World Class Sustainable Destination certification by the Responsible Tourism Institute, granting it the title of the first city in the world to be a certified sustainable urban destination.
• Between 1986 - when ecotourism began to take off in Costa Rica - and 2007, tourist arrivals increased 7-fold while tourism revenue increased 14-fold. This demonstrates that as Costa Rica grew to become a leading ecotourism destination, it doubled its earnings/tourist.

• In 2010, international tourists to Costa Rica spent on average $944 per visit, while tourists in France spent $666 per visit. Costa Rica, a predominantly ecotourism destination, therefore generated 42% more revenue per tourist than did France, a more conventional mass market tourism destination.

• In 2010, Russian Prime Minister Vladimir Putin pledged to spend at least $160 million over the next five years to build and improve ecotourism attractions, in order to increase visitation to Russia’s parks. This decision came after Russian experts saw the economic benefits of ecotourism in the United States where tourists pay $14.5 billion per year to visit the national parks.

• In Dominica, in the Caribbean, “stay over” tourists using small, nature-based lodges spent 18 times more than cruise passengers spend while visiting the island.

ACTIVITIES
• A survey of U.S., British, and Australian travelers revealed that 70% would pay up to $150 more for a two-week stay in a hotel with a “responsible environmental attitude.
• In the UK, 87% say their holiday should not damage the environment; 39% said they were prepared to pay 5% extra for ethical guarantees.

International travelers, however, are not interested in only hearing about sustainability practices, but also looking for green travel products in the stage of purchase. In addition to having those experiences, they are keen for sustainability practices embedded into the business and the experience themselves. Sustainability is still part of the story, but not the story itself. People don’t travel for sustainability, they expect it to be sustainable but they travel for the authenticity of the destination or the place and for the experience.
4.6 Ecotourism in Jordan

While at present there are few good examples of Ecotourism in Jordan, the country clearly has enormous potential to develop this niche market further. There is a wealth of scenically dramatic ‘undiscovered’ areas in the Kingdom that could, with adequate investment, become focal points for Ecotourism and generate an alternative and complimentary tourism sector of considerable economic value.

Furthermore, the development of Ecotourism offers the chance to promote and sustain biodiversity conservation programmes in Jordan across all tourism sites, especially in protected areas, where this potential has already been demonstrated by pioneering initiatives like those in the Dana Nature Reserve and the rest of protected areas managed by the Royal Society for the Conservation of Nature (RSCN).
In addition to site-based programmes, a number of independent tour companies are promoting and operating “Ecotourism” excursions in Jordan but, in reality, it would be more accurate to describe them as nature-based or adventure tours. These tours embrace bird watching and hiking trips, river safaris, desert camping tours and other special interests programmes.

Ecotourism principles have also been introduced by Aqaba Special Economic Zone Authority (ASEZA) in Wadi Rum, which is among the top three most visited sites in the Kingdom. In Wadi Rum, a conservation-oriented management plan is being prepared based on the involvement of local communities and improved benefit sharing. The implementation of these plans, however, will always be the main challenge since the site has a long history of use and conflicts with local community.

Building on the success of the Dana pilot program, RSCN has been transferring the lessons learned to other protected areas under its jurisdiction. Progress has been made in the Azraq Wetland Reserve, Ajloun Forest Reserve and Mujib Reserve, a range of purpose built facilities, including a visitor centers, bird hides and camping areas. It has been developing outreach and education programs with local communities and recently established a number of reserve-based socio-economic activities, most of which are related to tourism.
5.0 Aqaba Tourism Opportunities & Challenges

• All evidences are showing the high potential of success for Aqaba as a destination that it has all what it needs of a product mix: landscape, geology, history, culture, biodiversity, climate, infrastructure, legislations, previous ideas and plans, and the commitment to that success is communicated loudly by the tourism industry. Unlike its Red Sea competitors, it is a city with real, living Arab community within the walls of an existing city. Aqaba as a destination can offer unique experiences, if packaged well.

• Aqaba has been successful in attracting multiple large-scale investments that are transforming the destination and providing growing opportunity for tourism growth.

• While the Red Sea is one of Aqaba’s great attributes, Aqaba has high completion from other lower cost Red Sea destinations. Accordingly, Aqaba’s other attributes must be amplified to position it as a unique destination to create a marketing edge and increase demand.

• The current range of activities other than water based activities and excursions to Petra and Wadi Rum are extremely limited. There is an understanding that a number of desired experiences are being developed by the mega projects, such as Saraya Aqaba, Ayla Oasis, Ma’abar and others. However, more activities are required in the city. The development of such activities is critical.
- Because of the speed at which the new top quality hotel supply is expected to come on stream, urgent action is needed to improve the product offered in the rest of Aqaba. Otherwise the guests in the new resorts will not be tempted to venture out into the city. On the other hand, Aqaba’s hotels are not considered price-competitive when compared to neighboring destinations.

- Present Aqaba’s product development process needs a period of accelerated action. Thousands of new bedrooms and extra bed nights will already be on the market during the coming few years. The damage which results when a destination is opened up before the product is ready can be considerably critical. Word of mouth is a very powerful element in tourism, and negative feedback spreads more rapidly and more widely than positive.

- Even though the potential for Aqaba is high, hotels and resorts in themselves are not generally a motivating factor for travel. Aqaba will not succeed unless it can provide and market a unique, desirable and multi-faced destination experience that can effectively compete in global markets.

- While some achievements have been realized, there are significant weaknesses in human resources, visitor attractions and activities, beach quality, family activities, night entertainment, general service quality both in direct tourism services and supporting tourism services, marketing and competitiveness, which need to be addressed.

- Until now Aqaba is linked to the Golden triangle of Petra and Wadi Rum, but still, it is not a destination by itself and a visitor will not make a promise to come back to Jordan to visit Aqaba as is the case with the other two.
• There is an obvious challenge that a “two-speed” Aqaba could develop, with islands of luxury in a city left far behind, this can have an inevitable consequence of rapid erosion of local support for tourism. It is widely accepted that without local support, tourism becomes unsustainable and cannot have a successful long-term future. Residents of Aqaba play a very important role in the overall quality of the cultural experience enjoyed by visitors.

• International case studies have proven the importance not to depend solely on international market but also to plan for the local market. Political changes, as well as demographical ones have created opportunities that cannot be neglected, local tourism will always exist and needs to be targeted, increased, educated and its requirements must be taken into consideration in future planning of accommodation, activities and infrastructure.
• Moreover, as Jordan’s only access to the sea, the domestic market will always be important to Aqaba, and is entitled of having good marine tourism experience. Restriction of local access to beaches and other facilities will be counter-productive in the long run.

• The southern beach area that is serving as public beach is not functioning up to its purposes in regard to management, facilities, sanitation, and quality of services on one hand, visitor’s safety and security on the other. Meanwhile, any international visitor would hesitate to use the central beach in its current disorganized, littered, and crowded situation.

• Many factors, including the continuous political changes and global economic situation that are changing projections have been the cause that brought many projects to a halt resulting in empty concrete blocks; turning some parts of Aqaba into “ghost city” of unknown destiny, therefore, development should take care of a softer approach of tourism architectural design that is sustainable and in harmony with nature.

• ASEZA environmental legislations and regulations, beside to the current two eco-labeling and certification initiatives can be a very good base and an umbrella to improving Aqaba tourism services quality and sustainably.
6.0 Development Plan

6.1 Adaptive Planning Key to Success

Planning in general is a very complicated process, as planners always have to deal with very changing and colliding factors; tourism is one of the most ever changing industries that is affected by all types of elements, needless to mentions the interaction among a big number of involved stakeholders with different interests.

The success of any planning study will depend on the integration level among different related stakeholders as part of their roles, as well as, the ability to re-visit and re-examine the study’s assumptions in an adaptive manner to challenge its outputs and redesign its objectives according to different changing circumstances.

Management strategy evaluation (MSE)
Source: Jones, G, 2005, ‘Is the management plan achieving its objectives?’
6.2 Development of Leadership

Once the decision has been made to proceed with Ecotourism development, the next step is to establish leadership and a decision making and implementation structure.

Establishing leadership to guide, monitor and adjust the tangible and intangible costs and benefits of Ecotourism is critical to ensure the long-term sustainability of the industry and the environment. A structure for leadership organization should therefore be created, such that continuous and long-term management of Ecotourism is undertaken, and the input and participation of a wide diversity of the community’s stakeholders is made possible.

Regardless of the structure of the existing or newly created leadership organisation, some major areas of this Aqaba Ecotourism leadership organization responsibility can be:

- Guiding and evaluating physical development, programs and activities
- Ongoing monitoring of tourism development and impacts
• Guiding impact mitigation and adjusting tourism strategies
• Ensuring that sustainable tourism practices are implemented including: economic incentives for local ownership and local control of tourism, education, and training of locals to participate in the tourism industry, and equitable access for residents to tourism facilities and activities

One of the most important lessons that have been established in all areas of development around the world is the considerable influence of partnerships on the success of any initiative. Public/private partnerships between government, public organisations, community organisations, industry and commerce are seen as the cornerstone of success in many destination initiatives.

Partnerships can bring together many different sets of ideas, points of view, and contributions of various kinds whether they are financial, social or political in nature in helping to achieve a successful development.
This study recommends that Aqaba Ecotourism Product Development can be managed through the ASEZA tourism department heading a multi-stakeholder representatives committee who will participate in the development and implementation of the plan, or as suggested by the draft Aqaba Tourism Strategy by creating, financing and staffing a new “Destination Aqaba” entity that will be made of representative of all Aqaba stakeholders. Having the government as a head role of this committee is a key role that can give credibility and recognition of the end product.
6.3 Development Goal & Objectives

The strategic base of any study affects all decisions related to the planned development and its influence on related stakeholders, while at the same time providing better targeting at one unified and clear aim.

Regarding the case of this study, the previous analysis of Aqaba tourism opportunities and challenges, displays a group of strategic decisions that should be addressed in order to build on its prospects.

The Aqaba tourism situation analysis indicates the need to take focused steps over the next three years to diversify its product and strengthen its differentiation brand to match the spectacular success achieved in attracting investment, in order to create a healthy environment for its incoming tourism industry and pin itself fully on the international tourism map.

Ecotourism development in Aqaba can provide a solution for many of Aqaba’s tourism hindering issues, at the same time it can contribute in generating a variety of sustainable and authentic nature-culture based products that can attract new and increasing number of current market segments, cost effective and budget facilities, quality certified services and new range of activities that will engage and educate all types of visitors, most important of which are Ecotourists, domestic local visitors, and Arab family tourism.

As a result, the “Development Goal” of this study is: “To initiate a successful Ecotourism Program building on Aqaba’s potentials, boost its tourism market compete ability while sustaining its natural and cultural resources” through the following objectives:
6.3.1 Develop Aqaba Ecotourism Product Base

A destination’s “product” consists of built and natural attractions, tours and packages, services for travellers (e.g. shopping, restaurants, accommodation) and activities. Destinations may choose to concentrate on services such as tour packages, guiding and interpretation. Natural resources are generally not thought of as “product” but an “Ecotour” in a natural reserve is a product. The heritage architecture of a community is not a product, but its interpretation, through a guided tour can be seen as a product.

Developing Aqaba Ecotourism Product does not mean that only attractions which appeal to tourists, regardless of their appropriateness should be developed. It means, rather, that the product should be seen as a community’s livelihood and marketed and protected accordingly.

Planning for Ecotourism Product must avoid developments which do not fit the community or which cause undesirable impacts. Aqaba as a destination has its own unique product mix, based on its resources, values, needs and preferences.

Achieving the desired result of Aqaba Ecotourism product development needs good rooted foundations within a workable organizational system and environment, accordingly, the following actions is to be undertaken:
6.3.1.1 Develop Aqaba Ecotourism Certification Program

Certification is the process of assessing compliance with pre-established criteria and it is becoming globally required and implemented as an important tool that can be used to address the impacts of the growing tourism industry.

Certification programs can be divided into two major categories, those for mass or mainstream tourism and sustainable tourism/Ecotourism. These programs usually address three main aspects, namely: 1) environmental performance of companies, operations and destinations; 2) product quality; and 3) corporate social responsibility of operations. They normally target tourism suppliers, such as accommodation, restaurants, sport and leisure facilities, tourist attractions, destinations, tour operators, (tourist) transport companies, tourist associations, etc.

Even though tourism Certification systems are playing an increasing role in regulating tourism operations as voluntary instruments above legal frameworks, ASEZA with its advanced environmental regulation (No. 21) is providing a minimum standard performance-based certification program, as this regulation is tackling the number one concern in any certification program, as it sets the ground to deal with:
• Waste management
• Use of sea water
• Emission of harmful substances to the environment

This minimum standard performance-based certification program is also based on the regulation addresses the legal framework for environmental management and monitoring in the zone including environmental clearance and post-clearance phases of the economic activities in the Zone, through the articles related to:
• Environment Impact Assessment (EIA)
• Environment Impact Statement (EIS)
• Environmental Audit (EA)
• Marine Environment Protection

Aqaba environmental regulations and articles are as well, identifying, examining and defining environmental, social and economic impacts of different types of developments in Aqaba. Next to that it is providing the mechanisms for continuous monitoring for the level of compliance of these developments.

This study recommends the activation of this regulation and its articles as an obligatory minimum standard performance-based certification program for all current and future tourism ventures and activities.
To have a successful Aqaba Ecotourism Performance-Based Certification Program, the ASEZA environmental regulations and articles must be presented in the shape of a certification package that insures:

- Tangible criteria that permit comparisons among certified businesses
- Measure achievement and results, not intent
- Can include check list intelligible to both business and consumers
- More transparent; less expensive
- Include environmental and socio-economic criteria
- Can involve variety of stakeholders
- Suited for small, medium & large businesses

Following awarding Ecotourism minimum standards certification for all Aqaba tourism businesses, products, processes, or services, the specialized step towards “accreditation” applies to the process of qualifying, endorsing and licensing entities that perform certification on a higher level of commitment. In other words, accreditation is certifying the certified.

This step must embed the already running two Eco-labeling initiatives of Green Key and Blue flag embedded in its criteria, this accreditation must be reflected in different levels of logos reflecting different levels of performance.

Aqaba certification and accreditation criteria must be developed through multi-stakeholder consultation processes, involving all relevant interest groups, such as different government authorities (tourism, environment, transportation, finance, and education); tourism associations and other private groups; academic, education institutions and NGOs.
Aqaba certification and accreditation criteria must be based on indicators that evaluate the key environmental and socio-economic impacts of the sector. Criteria should refer to attainable and realistic goals for private sector participants through different levels of requirements: from more easily achievable to very demanding criteria. Thus, the certification system sets a framework for continuous improvement whereby applicants can achieve higher performance levels step by step.

Management strategy evaluation (MSE)
Source: Jones, G, 2005, ‘Is the management plan achieving its objectives?’

This certification program should be open to all potential applicants, provide clear and easily accessible information on the criteria, costs and benefits and other conditions of certification, show tangible benefits for applicants (costs savings, marketing advantage, access to technical assistance and modern technology and financial possibilities).
The program application documents should be clear, easy to understand and fill in, while the program certification body should conduct a pre-evaluation/assessment of the applicant in order to identify technical and technological aspects that need to be improved to meet the criteria.

Compliance with criteria can be measured through process and performance-based assessments. Indicators are essential tools for measuring environmental, social and economic impacts of tourism operations:

*Environmental indicators* relate to some of the following factors:

- Health and safety
- Energy (consumption, reduction, efficiency)
- Water (consumption, reduction, quality)
- Solid and liquid waste (reduction, reuse, recycling, treatment, disposal)
- Appropriate building materials
- Hazardous substances (reduction, handling, use of nature friendly cleaning products)
- Noise (reduction)
- Air quality (quality, improvement)
- Habitat/Eco-system/wildlife maintenance and enhancement
Interpretation In Corporate Areas Showing how much consumption has increased
Recycling as Part of Project Image

Cleaning the Beach is Part of an Activity

Recycle Remains of Workshops
Recycling as Part of Architecture, Interior & Public Awareness

Recycling Cooking Oil for Candles (Micro Socio Economic Projects)

Recycling Plastic Jewellery
This report recommends establishing a comprehensive solid waste management system. This system needs to cover the solid waste resulting from the residents as well as the visitors, cleaning and from regular maintenance processes.

This system should include the distribution of solid waste disposal tanks.

The solid waste disposal tanks should include the separation of paper, metal, glass and others.
Compliance with criteria can be measured through process and performance-based assessments. Indicators are essential tools for measuring environmental, social and economic impacts of tourism operations:

Environmental indicators relate to some of the following factors:

- Health and safety
- Energy (consumption, reduction, efficiency)
- Water (consumption, reduction, quality)
- Solid and liquid waste (reduction, reuse, recycling, treatment, disposal)
- Appropriate building materials
- Hazardous substances (reduction, handling, use of nature friendly cleaning products)
- Noise (reduction)
- Air quality (quality, improvement)
- Habitat/Eco-system/wildlife maintenance and enhancement
- Environmental information/interpretation/education for customers
- Transportation services (public transport, environmental friendly alternatives)
- Indicators and standards on the impacts at specific tourist use areas (e.g. beaches) and on the impacts caused by specific tourism activities and facilities (e.g. diving, golf, marinas etc.)
- Visual impacts of establishments and infrastructure
**Water Consumption Conservation**

The expected increase in water consumption during any operation phase can be controlled through implementing water usage management plan:

- The installation and usage of water-saving devices. These devices include:
  - Low flow shower heads
  - Low flow toilets
  - Faucet aerator in the vanity sinks, kitchen sinks and showers

- The installations of water saving devices in kitchens. These devices and machines include:
  - Faucet aerator in the kitchen sinks
  - Water saving dishwashers

- Implement the concept of water reuse

- Gardens’ watering should be done in the evening time in order to reduce the evaporation rate. Moreover, it is highly recommended to use the reclaimed water for this purpose

- Use notes to encourage guests to conserve water
Public Awareness about the Importance of Life Style Change
Bedouin Experience &
To create a favourable micro-climate for the users through formulating solutions to the specific problems of desert habitation, which stem both from natural conditions, such as resource availability and climate, and from human issues which take on special significance in an arid environment: thermal comfort, energy consumption and construction technology.

**Bioclimatic Approach to Architecture**

**Why Desert Architecture?**

Despite the environmental implications, man’s dependence on non-renewable energy resources continues to increase.

The burden of resource use in the buildings’ settings can be minimized in many ways, and the first requirement is a basic understanding of climate and local conditions. This «bioclimatic» approach to architecture to be applied, and its pertinence is in fact amplified:

- Often characterized as an «extreme» environment, the desert makes considerable inputs of natural resources, such as water and energy, necessary to provide acceptable levels of human comfort.
- The opportunities for utilizing «natural energies»—solar radiation, night ventilation, evaporation, or nocturnal sky radiation—are among the many passive systems and design strategies whose effectiveness is especially pronounced in an arid climate.
Optimal Geometries for Buildings

Manipulating the geometry of the building envelope is the most fundamental way in which an architect adapts a building’s design to the constraints of energy and climate. Through specialized geometry, shading of the envelope may be facilitated in summer while solar exposure is enhanced in winter, often with little or no added construction costs.
Environmental Design Concepts

DETAIL SECTION
Not to Scale

SECTION
scale 1:50

Aqaba Ecotourism Development Plan 2014
Architecture in Harmony with Context
The outer shell of the truss consists of a layer of metal mesh covered with newspapers and plaster. An insulation layer will provide water proofing and will be covered with mud paint as a finishing material. As for the interior shell, the same concept will be applied by the use of newspapers and metal lath with plaster.
LANDSCAPE OF GARDENS
Aqaba Design Guidelines 2001

Volume 2 is a 92 page volume of architectural and urban guidelines that need to be updated and enforced in the designated design and construction departments.
Social indicators relate to some of the following factors:

- Staff policies and management (information, education, training, incentives, health, safety)
- Relationships with local communities (local employees, outreach and education programmes)
- Emphasis on and conservation of local/regional culture, heritage and authenticity
- Maintaining aesthetics of physical development/architecture
- Community feedback systems, satisfaction of local population
- Contribution to community development purposes (infrastructure improvement, social services)
- Information provided to guests on sustainability aspects
- Guest feedback systems and customer satisfaction indicators
Economic indicators relate to some of the following factors:

- Creation of local employment (number of employees from local communities and their level of skills)
- Supply chain management through green and sustainable purchasing policies
- Creation of networks of environmentally friendly businesses within Aqaba destination
- Responsible marketing
- Use of locally sourced and produced materials and food

Aqaba certification body can be managed through the ASEZA tourism department heading a multi-stakeholder representatives committee who participated in the development and implementation operation of the system, or as suggested by the draft Aqaba Tourism Strategy by creating, financing and staffing a new “Destination Aqaba” entity that will be made of representative of all Aqaba stakeholders. Having the government as a head role of this committee is a key role that can give credibility and recognition of the system.

Verification of compliance with criteria should be done by an independent or third party organization. In other words by a body which is independent from the parties being certified and of technical assessment or funding.
6.3.1.2 Building Aqaba Ecotourism Product Image

Ecotourism was not discussed as a potential market segment through the Aqaba Marketing Strategy in its old and new versions, even though a very important discussion was made by the new draft marketing strategy about the importance of developing an authentic product that can distinguish Aqaba’s tourism product, highlighting the importance of collaboration of public-private partnerships (PPPs) in tourism promotion and product development, while identifying responsible tourism as a strong market trend.

This study recommends to reviewing the Aqaba Marketing Strategy and updating it to include Ecotourism as an indentified market segment that can have a new breakthrough within current and new tourism markets and at the same time labeling Aqaba Ecotourism Product as a promotional tool.

Aqaba Marketing Strategy should emphasize on ensuring that Aqaba as a tourism destination is competitive and sustainable. At the same time the Aqaba Marketing strategy must consider the fact that not all forms of tourism or types of visitor are compatible with local goals and conditions. Careful attention must be given as well to attracting high-quality, high-yield visitors who can benefit the community much more than indiscriminate marketing.
Image-making will be an essential part of developing Aqaba’s tourism marketing. Aqaba as an Ecotourism destination should portray itself using attractive symbols and messages. On the other hand, international experience shows that words “green”, “eco-tourism” and environmentally friendly” have often been abused, so clichés must be avoided. Most often the best approach is to stress authenticity, exclusivity, uniqueness and sound visitor management practices. The focus should be on the image-making for precise targets.

As general ideas, Ecotourism marketing and promotion must consider a number of factors:

• Promotion must be targeted and fully informative, otherwise false expectations are generated
• Quality tourists are informed tourists
• Quality products are marketed differently from mass tourism products (e.g. value is more important than price)
• Information and interpretation are also important elements in the travel experience

Aqaba Ecotourism product image buildup can also be managed through the ASEZA tourism department heading a multi-stakeholder representatives committee, or as suggested by the draft Aqaba Tourism Strategy by creating, financing and staffing a new “Destination Aqaba” entity that will be made of representative of all Aqaba stakeholders.
The Aqaba Ecotourism product image promotion considerations must be supported by an image supporting actions that must be implemented beforehand. The must do build up actions are:

- Introduce and activate Aqaba Recycling/Reusing Program
- Redesign Aqaba Tourism Information Center and produce new publications to reflect Aqabas’ New Brand
- Prepare and activate Aqaba Ecotourism integration Program through different tourism and educational sectors
- Seek to “Aqaba A Smart Destination” that incorporate sustainability and technology embedded into its DNA in all the links of the value added chain of the Aqaba destination elements

6.3.2 Develop Aqaba Ecotourism Facilities & Activities

Each destination has its own unique product mix, based on its resources, values, needs and preferences. The result should be an authentic Ecotourism product that will be attractive to travellers seeking hospitable and unique experiences. International experience shows that when developing a destination’s product, the following elements should be considered:

- Choose authentic themes which reflect the local culture and environment-human relationships
- Keep development in scale with the community and environment
- Ensure that developments also meet community needs (e.g. through joint use)
• Develop attractions that are attractive and competitive in the long run, not faddish
  • Require strong community support; do not impose new ideas on an unreceptive population
  • Avoid “parachuting” successful ideas from other places, success comes from strong local commitment and enthusiasm
  • Choose themes which help position the destination within sustainable development principles
  • Consider sports; many competitions and fun events can be held using existing

• Provide high-quality experiences
Every destination needs a design plan for developing attractions and facilities. This should include issues of visitor management and flow, parking, and access to the attractions. Site designs should be compatible with local heritage and lifestyles in order to maintain a sense of place, and enhance local architecture and culture. Aqaba with its unique resources and attractions can provide for the a new wide range of activities and visitor’s facilities, while at the same time stressing the great need to the reintroduction of current facilities and activities according to Ecotourism best practices.
6.3.2.1 Zoning for Aqaba Ecotourism Activities

Aqaba Ecotourism Product can be developed within three zones:

- Mountain Zone: This includes hiking, lodging, camping and stargazing

- Marine/Coastline Zone: This includes one iconic compound that joins marine aquarium, museum and children interactive museum, beside to developing the activities of the glass boats, birdwatching, new coral translocation area, diving management and the southern beach management

- Desert Zone: This includes the development of a new major event of a caravan trip from Fienan copper mines area, through Araba valley and Aqaba mountain area and arriving at the Aqaba marine museum

- City Zone: This includes the activation of a group of soft activities that can be practiced within the city of Aqaba such as cycling and biking.
6.3.2.2 Aqaba Mountain Ecotourism Product

6.3.2.2.1 Aqaba Mountain Walk

This idea was originally introduced by ASEZA back in 2007 through an official declaration (25/07/9) as a land use suggestion, but it was not activated so far. Still the concept itself can be a very good chance for national, regional or even international investment.

This zone is providing a one stop answer to a number of challenges such as having new authentic activities, new type of accommodation facilities for different visitors and budgets and at the same time, support the new branding image of Aqaba as a distinguished tourism product destination.

This study recommends initiating a detailed study of the steps needed to create this zone, explaining its needed access points, infrastructure, development brand, functions, investment bases and market feasibility.
Desert Base Camps
Desert Theme Park
Starwatching
& Daytime Telescopes

Activities
The concept is dedicated to a long term operation, meaning that all measurement and activities that will avoid or at least decrease emissions and costs (initial and running) have to be taken in order to guarantee the maximum benefit from the beginning and for the future and to justify the initial investment for according technologies.

It also reflects the latest state of the art technologies in the fields of:

- Energy supply as electricity
- Energy supply as air conditioning
- Fresh water supply as water complying with local guidelines for drinking water
- Service water as water for flushing toilets, cleaning purposes, etc.
- Sewage treatment as grey water to be used as water for irrigation after treatment.

In general, the entire architectural design should be conducted as passive solar design, meaning that solar radiation (direct and diffuse) and wind direction and speeds will be considered throughout the whole calendar year in order to take all basic measurements to reduce the required energy and water amount for all infrastructural needs (cooling / heating / water / electricity).
6.3.2.3 Aqaba Marine/Coastline Ecotourism Product

6.3.2.3.1 Marine Aquarium, Marine Museum, Children Marine Museum

Having a high standard level aquarium in Aqaba was supported by many studies and strategies prepared by different specialists during the last 10 years. The current aquarium at the Marine Science Station was a very pioneering idea in the region, but it is agreed among different specialists that Aqaba needs an iconic representative aquarium that can reflect Red Sea wonders and Aqaba coral reef uniqueness.
At the same time, this facility can be turned into a full day destination for international, Arab and local visitors by joining a specialized Aqaba heritage main museum and a children marine based activities facility.

This development can be of a great attraction to specialized investors, while it can be situated next to the northern area of the Marine Park visitor’s center, enabling it to be compatible with the Aqaba marine conservation efforts showcase.
Horizontal stone slabs to be used indoor and outdoor elements
6.3.2.3.2 Aqaba Bird Watching Observatory

Bird watching is a cornerstone Ecotourism activity, while Jordan includes around (18) internationally recognized important bird areas (IBAs), Aqaba is positioned at the great rift valley which is a major route for migratory birds, shows the importance of the Aqaba Birds Observatory (ABO).

This initiative is connecting the private sector into the governmental plans for tourism and development as well as involvement of local communities in the development aspects. This project is managed through the Royal Society for the Conservation of Nature (RSCN).

The ABO is situated in the relatively dense vegetation and open ponds at the wastewater treatment plant, which attracts hundreds of thousands (possibly millions) of more than 350 different species of migratory birds every spring and autumn, ABO aims at maintaining and preserving one of the habitats that is of global importance for migratory birds, in addition to expanding Ecotourism, increasing overall public awareness on environmental issues, scientific monitoring and research to create database for birds and their migration and to open the doors for future similar initiatives.
The ABO is the first specialized observatory for birds in Jordan and it attracts so far some specialized bird watching groups and schools, but still, it is not promoted enough to the tourism sector, and due to being situated close to the boarder’s area special arrangement needs to be taken to have access to the site.

This study believes that ABO should be managed with more informative background to its visitors about its security necessities, while the ABO management can consider these security arrangements as part of the site’s experience by involving the army individuals in handing specially designed permits to the site visitors and include the army individuals in facilitating the site activities of birdwatching.
Aqaba Ecotourism Development Plan 2014
6.3.2.3.3 Develop Visitors Services Experience at the Aqaba Marine Park and the Southern Public Beach Area

One of many Aqaba Marine Park (AMP) roles nowadays are to conserve the newly translocated coral reefs from different impacts, while at the same time enforcing the law against many marine-related violations all over Aqaba and providing marine conservation awareness messages to the AMP visitor’s through its limited staffed rangers.

On the other hand, two kilometers of public beach coastlines is located to the south of the AMP center, which is basically part of the Park’s designated total area of responsibility. This beach area is open for public visitors and can be considered as the last and only public beach in Aqaba, mostly visited by local Jordanians, but at the same time used by tourists and divers.

A closer look at the southern beach area that is supposed to serving as public beach shows that it is not functioning up to its purposes in regard to management, facilities, sanitation, and quality of services on one hand, visitor’s safety and security on the other.

Many previous local and international experiences have proved that local tourism will always exist no matter of any changes or upheavals and will always be important to support or substitute international markets, therefore, local Jordanian tourism market needs to be researched, targeted, increased, educated and at the same, this category of tourism are entitled of having a good marine tourism experience in Aqaba.
Key Considerations in the Marine Park

**Site Wide Access Strategy**
- Strategic Framework
- External Infrastructure

**Zonal Access Plan**
- External Infrastructure
- Circulation Routes

**Physical Intervention**
- Buildings & Landscape

**Interior & Content**
- Interior Mood

**Culture & Science**
- Identity & Branding

**Key Considerations**

**Distances & Distribution**
- Land Zones
- Arrival Points
- Pedestrian Routes
- Vehicular Routes
- Sensitivity Zones

**Land Uses & Circulation**
- Pedestrian Network
- Vehicular Routes
- Sensitivity Zones
- Physical Intervention
- Recreation
- Wayfinding

**Shell & Core**
- Arrival
- Entrances
- Horizontal Circulation
- Vertical Circulation
- Public Facilities
- Wayfinding

**Mood Reflecting Identity**
- Reception Areas
- Entrances
- Signage
- Finishes
- Colors & Textures
- Content
- Activity
- Context

**Key Considerations**

**Destination Experience**
- Education
- Conservation
- Recreation
- Activity
- Content
- Experience
- Accommodation
Improving the enforcement of the AMP regulations should be good enough but in order to be able to do so, the following actions should be considered:

1. Establish, staff and finance a visitors management unit within AMP that is responsible for the AMP beach area activities, including visitors numbers records, information, awareness and guidance, life guards, visitors amenities, public toilets, beach sanitation, and quality of any outsourced services

2. Produce AMP southern beach visitor’s management plan that should plan for visitors infrastructure development, quality and location of services, as well as site use regulations, capacity and activities

3. Include the southern beach management plan as part of the AMP updated management plan

4. Endorse the AMP management plan by ASEZA as the regulatory framework for current and future AMP management, duties and responsibilities

5. Seek for the highest level of certification for the AMP beach as part of Aqaba Ecotourism certification program and at the same time be awarded by international Ecotourism awards

*Improve Interpretation*
The AMP rangers can also play an important role in visitor’s management on site if their numbers can be increased and if they receive the proper skills and knowledge through special training and capacity development.

This actually should create better moral and financial incentives for them to undertake their difficult enforcement tasks. Rangers can take on a task of a double nature where they can share their knowledge and experience with others as they protect and manage their reserve.
6.3.2.3.4 Diving, Snorkeling, Glass boats & other Water-Based Activities

Diving, snorkeling and glass boats are the main activities that are based on the most treasured and valuable biodiversity component of Aqaba, its coral reefs, which represent the northern limit of coral reefs in the world.

Although there are currently around 19 registered and licensed Diving Centers in Aqaba that used to dive in and visit around 21 sites, reduced now to about (8) sites, due to recent new port translocation. Nevertheless, these activities need a detailed scientific research to decided if it is managed in a sustainable and accordingly develop its management methods to be according to the concepts of Ecotourism. The needed study should decide among others, issues related carrying capacity, methods and timing of use in each site, benefiting of the accumulated experience of the Aqaba Marine Park (AMP).

Until such research is made through, we recommend to promptly prepare a transitional management plan that can be part of the AMP visitor’s management plan, this part of the plan should be prepared in full consultation with all related stakeholders to insure the maintenance of these site’s ecological integrity, while at the same time protect the newly translocated coral reefs sites from being just another touristic spots, rather than organize their visits through tools such as: high fees, small numbers and distant visitation timings
6.3.2.4  Aqaba Desert Ecotourism Product

6.3.2.4.1  Copper Mines Caravan Adventure (Camel Trip from Wadi Arab Copper Mines in Fienan to Aqaba Port)

Camel Caravans traveling on trade routes has been a major component of a very important part of the long history of Jordan. Aqaba was always a very strategic Caravansary during the Iron, Roman, Byzantine, Islamic and modern ages. Aqaba was the last stop for King’s highway and Via Nova Triana and it was the main station to export copper coming from Fienan cooper mines to the world.

The camel desert experience can also be served not only in Wadi Rum, but also from Wadi Araba sand dunes, resting in Fienan Eco-lodge climbing up to Aqaba Mountain Ecotourism Zone, arriving to Aqaba Iconic Aquarium and Marine history Museum.
The camel desert experience can also be served not only in Wadi Rum, but also from Wadi Araba sand dunes, resting in Fienan Eco-lodge climbing up to Aqaba Mountain Ecotourism Zone, arriving to Aqaba Iconic Aquarium and Marine history Museum.

The “Copper Mines Caravan Adventure” project aims at:

• Revival of the camel, copper, desert and sea stories and its connections to Jordan’s and Aqaba history
• Connecting different Ecotourism experiences (Dana-Fienan-Aqaba)
• Creating professional opportunities (training, guiding/driving, trade), especially Wadi Araba and Aqaba societies
• Creating new tourism activity for Aqaba destination compatible with different types of visitors and budgets
This study suggest to have a trail launch of this activity with help from the ASEZA/UNDP “Mainstreaming Marine Biodiversity Conservation into Coastal Zone Management in the Aqaba Special Economic Zone” project headed by the ASEZA tourism department, RSCN, Aqaba tourism private sector and other related stakeholders to preliminary study its feasibility needs to be conducted.
6.3.2.5 Aqaba City Ecotourism Product
6.3.2.5.1 Cycling/Biking Trails

Within the streets of Aqaba, many soft tourism activities can be planned for and organized by the tourism department or franchised to specialized management companies.

Cycling and biking are amongst the mostly practiced city sports at coastline destinations around the world because of its suitability to different visitor’s types and ages, supported by the almost flat topography of Aqaba, making it easy to tour around the attractions of Aqaba city without hardship.

The cycling and biking tours can be organized around the Ayla project and along the southern coastline area by creating designated lanes next to or within the current pedestrian sidewalks.

Such activity can also be a full day guided tour to the main attractions of Aqaba city and the southern beach area, as well as mountain biking to the suggested Aqaba Ecotourism mountain zone area including lunch and dinner.
Recommendations for Street Image Improvement
A well-planned color coded way-finding-system for pedestrians & vehicles

Safe walkways designated by color and durable vandalism-proof materials

Street Furniture providing resting nodes and reflecting the ease of staying in the city
6.3.3 Develop Aqaba Ecotourism Capacity & Training Needs

The Ecotourism capacity assessment and training needs was targeted for the AMP and the Marketing and Tourism Directorate, to assess the future capacity needs in order to manage the Ecotourist trade and to identify the gaps between the present capacities and the desired skills and human resources.

As an outcome; a detailed capacity development strategy and action plan was produced to upgrade the human resources of the AMP and the Marketing and Tourism Directorate to a level which reflects the future vision for the AMP and meets the changing roles of the protected areas management. The following is a detailed list of the training needs according to the results of the capacity assessment process.
<table>
<thead>
<tr>
<th>Training</th>
<th>Provider</th>
<th>Description</th>
<th>Training Priority</th>
</tr>
</thead>
</table>
| Marine Protected Area Planning | External, Consultancy                          | • Understanding management planning  
• Planning approaches  
• Protected areas governance  
• What is the management plan  
• Management planning process and requirement  
• International best practices in MPAs management planning | High              |
| Marine Ecology (Basic & Advanced) | External, The Faculty of Marine Sciences in Aqaba | • Marine provinces and habitats  
• Limiting factors of marine ecosystems  
• Marine biodiversity and ecosystem functions  
• Dynamics of marine ecosystem  
• Biological and biogeochemical processes in coastal areas  
• How to value the marine ecosystem health | Medium            |
| Ecotourism Principles and Applications | External, Consultancy, The Royal Marine Conservation Society of Jordan (RMC) | • Ecotourism/Sustainable Tourism concepts and principles  
• Basic biological sciences and environmental issues  
• Natural history and cultural interpretation  
• Sustainable resource management  
• Ecotourism Certification and Accreditation  
• Ecotourism development and management  
• Principles of Eco-Design/Architecture  
• Community participation | High              |
| Coastal Tourism Management | External, Consultancy                          | • Introduction to Marine Ecotourism and related Sustainability aspects  
• Developing and implementing Marine Ecotourism activities  
• Educating staff and visitors about Low-Impact Forms of Marine Ecotourism  
• Monitoring and assessing impacts of Tourism in Marine Environment | Medium            |
| Green Business Planning | External, Consultancy, Royal Society for the Conservation of Nature | • Basic biological sciences and environmental issues  
• Corporate ecological vision and mission statement  
• Corporate Social Responsibility (CSR) | Medium            |
| Green Business Planning | External, Consultancy, Royal Society for the Conservation of Nature (RSCN) | • Basic biological sciences and environmental issues  
• Corporate ecological vision and mission statement  
• Corporate Social Responsibility (CSR)  
• Sustainable business practices for a future or existing business  
• Development criteria for a “Green Business”  
  ○ The Water Module  
  ○ The Waste Module  
  ○ The Transportation Module  
  ○ The Energy Module  
  ○ The Building Module  
  ○ The Health, Food & Agriculture Module  
  ○ The Community Organizing & Leadership Module  
  ○ Strategies to reduce a company’s ecological footprint  
• Sustainable resource management  
• Corporate green business audit | Medium            |
| Visitors Management | External, Consultancy                          | • Basic biological sciences and environmental issues  
• Ecotourism/Sustainable Tourism concepts and principles  
• Natural history and cultural interpretation  
• Carrying capacity applications  
• Sustainable resource management  
• Ecotourism Management  
• Basics of recreational behaviour  
• Practices of Eco-community Development  
• Outdoor furniture management  
• Leadership and program planning  
• Risk management | High              |
| Facilities Management | External, Consultancy                          | • Basic biological sciences and environmental issues  
• Natural history and cultural interpretation  
• Sustainable resource management  
• Ecotourism/Sustainable Tourism concepts and principles  
• Ecotourism Management  
• Hospitality  
• Food and Beverage  
• Experience economy  
• Eco-planning/Eco-Design/Eco-Architecture  
• Risk management  
• Eco-Lodges  
• Eco-Camps | High              |
<table>
<thead>
<tr>
<th>Training</th>
<th>Provider</th>
<th>Description</th>
<th>Training Priority</th>
</tr>
</thead>
</table>
| Eco-guiding Skills       | External, The Royal Marine Conservation Society of Jordan (IREDS) | • Basic biological sciences and environmental issues  
  • Natural history and cultural interpretation  
  • Sustainable resource management  
  • Ecotourism/Sustainable Tourism concepts and principles  
  • Ecotourism Management  
  • Outdoor leadership skills  
  • Wilderness travel skills  
  • Natural history and cultural interpretation  
  • Trail development  
  • Outdoor adventure management  
  • Conservation authorities  
  • Leadership and program planning  
  • Sports and special events  
  • Risk management  
  • Community participation | High                               |
| Research and Monitoring Program | External, The Faculty of Marine Sciences in Aqaba  
  Supported by External Consultancy (note 1) | • Research design and implementation  
  • Policy-oriented research  
  • Data analysis  
  • Report writing  
  • Why monitor?  
  • When to monitor  
  • What to monitor  
  • Biological monitoring  
  • Management monitoring  
  • What to do with the results | Moderate                          |
| Interpersonal Skills     | External Consultancy                   | • Authentic leadership discovery  
  • How to transform authentic leadership into action  
  • Team building and team spirit  
  • Characteristics of successful team  
  • Presentation skills  
  • Training methods and techniques  
  • Training design  
  • Training aids  
  • Communication tools  
  • Levels of communication  
  • Barriers of communication  
  • Effective communication  
  • Listening skills  
  • Understanding the different contexts of negotiation  
  • Factors that shape the outcomes of negotiation  
  • Plan for negotiation  
  • Principles of win-win negotiation | Moderate                          |
| Advocacy and Outreach    | External, The Royal Marine Conservation Society of Jordan (IREDS) | • The significance of advocacy  
  • When and why advocate?  
  • Methods of advocacy  
  • Constraints and barriers to effective advocacy  
  • Stakeholders analysis  
  • Outreach planning process  
  • Effective outreach tools | High                               |
| Marketing and Promotion  | External, Royal Society for the Conservation of Nature (RSCN) | • Construct a marketing plan for a local company that highlights its market and differential advantage through corporate social responsibility strategies. | High               |
| Business Planning         | External Consultancy                   | • Write a formal business plan, including a detailed marketing, operational and financial plan for a green business opportunity that uses a current business model (e.g. Triple Bottom Line). | Moderate           |
| Financial Planning and Management | External, Consultancy | • Protected area financial planning  
  • Basic accounting  
  • Business planning  
  • Financial administration | Moderate           |
Note 1: Monitoring and Evaluation in the case of AMP will require monitoring a number of parameters, environmental, economic and social. Furthermore, the purpose of M&E is ensuring that management is adaptive therefore monitoring will include management performance indicators. As such this will be a relatively complex monitoring system and therefore training will include an element of participatory design. Therefore the training delivery would need to be a collaboration of the Marine Science Faculty and an external M&E expert experienced in adaptive management.

Note 2: It is unlikely that the AMP could have a full-time Human Resources and Training Officer, however efficiencies can be made by training or two individuals who then go on to deliver training to their colleagues. It should be noted that when training trainers it is important that they not only receive training in the technical aspects of the work but they should also be given training in order for them to adequately train their colleagues.
UNDP is the UN’s global development network, advocating for change and connecting countries to knowledge, experience and resources so people build a better life. We are on the ground in 166 countries, working with them on their own solutions to global and national development challenges. As they develop local capacity, they draw on the people of UNDP and our wide range of partners.

For more information:

United Nations Development Programme
Ishaq Al Edwan street
Building no. 16
Opposite to Shmeisani Police station
Jordan
Email: registry.jo@undp.org.
Website: www.undp-jordan.org