## EIA IN THE TOURISM SECTOR IN EGYPT

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## **ABSTRACT**

In February 1994, the Government of Egypt had issued law No.4/94 concerning protection of the environment. The objective of the law was not only addressing pollution measures and control, but also involved new developments and projects including expansions of the existing ones. New establishments are required to carry out an Environmental Impact Assessment (EIA) before construction. Relevant articles in the Executive Regulations, issued by the Prime Ministers decree No.338 of 1995, complement the law. The Egyptian Environmental Affairs Agency (EEAA) is mandated to implement law 4/94 and is responsible for the review and decision making for EIA in Egypt. During the past years, the EIA system had witnessed several developments and improvement not only within the EEAA but also in the Competent Administrative Authority or the licensing authority.

In 1994 only 5 EIS had been submitted for review to the EEAA. The numbers had increased drastically in the following years to reach over 10,000 studies in the Year 2000. This increase in the number of EIA studies required building the capacity of the EEAA central department at EEAA to handle efficiently such studies, within the allowed time stated in the law of 60 days. The number of studies had also increased for the Tourist developments in Egypt, which required increasing the setting-up of a new environmental department at the Tourist Development Authority (TDA) and increasing the efficiency in handling large number of studies and perform the monitoring plans,

This paper presents the Egyptian efforts made to develop the EIA in the tourism sector, including the capacity building of the Tourist Development Authority (TDA) being the competent administrative responsible for the tourist development in Egypt. The paper also presents the historical development of the TDA with respect to environmental issues and gives a brief analysis of the current situation and the perspective of the sustainable development of the tourism sector in Egypt.

#### 1. INTRODUCTION

The increase of awareness for the sustainability of economic development in Egypt had led to issuing the law for the environment, known by Law 4 /1994. Environmental Impact Assessment had become mandatory for establishments according to Law 4/94. Through the past years and since the implementation of the law, awareness for EIA had increased in Egypt. The capacity building and the experience had also increased locally. EIA is one of the important policy interventions that aim to ensure that projects are environmentally sound and sustainable and that any environmental impacts are recognized and taken into consideration early in the project cycle. The environmental impact assessment is acknowledged as an important tool for ensuring the achievement of sustainable development objectives in planning and decision-making. In practice, the use of EIA depends on the scope and integrity of the EIA process, the larger mix of environmental and scio-economic policy and planning instruments that are used for decision-making, and the degree of policy commitment to sustainable development.

The EIA system has three principle components; EIA preparation, EIA review and post-project monitoring. The EIA system depends to a great extent on the interrelation and contribution of its two key players; project proponents and regulators. An effective EIA system requires an effective contribution and cooperation between its key players in the review loop, according to their defined roles and responsibilities. The proponent is responsible for the preparation of the EIA according to the conditions and guidelines set by the regulator. The regulator reviews the EIA and conduct post project monitoring to ensure the incorporation of approved mitigation measures.

Particular attention is given in this paper to the Tourism development along the Red Sea with its pristine environment and due to the increased and random developments that had occurred in the past. The Red Sea development concept along the shore is mainly based on tourist development and their associated activities. Over the last two decades, the Red sea coast has been one of the most important tourist areas in Egypt and the Middle-East region. The sandy beaches, the very clear azure waters and the rich marine life represent salient features of the area and offer potential resources for tourism development. The area has witnessed remarkable development, represented in the establishment of a large number of tourist villages or resorts to answer demand of the foreign tourists.

Tourism development plans adopted for main cities along the Red Sea in late 70s and early 80s were made to catch the growing demand without adequate concern for environmental safeguards. In the mean time the tourism growth indicators in the Red Sea coast have grown from 281,000 tourists in 1992 then jumped to over 996,000 in the year 1997. The lodging capacity increased from almost 5,600 rooms in 1992, to reach 17,600 rooms at the end of 1998. In the last two decades this rapid growth of tourism development pattern influenced the Red Sea region and caused a lot of alteration to the natural environment and its unique marine and terrestrial life. The diverse and spectacular coral reefs and unique mountains and desert features for which the Red Sea is renowned have suffered a lot of destruction and cause numerous ecological threats in recent decades due to the large demand by tourist activities.

Many examples and evidences of natural deterioration along the Red Sea coast can be cited for the irreversible damage on the coral reef in the areas of Hurghada and Safaga This environment which preserved naturally undisturbed for thousand of years rapidly destroyed in few years of development. This pattern of unsustainable development threats not only the environment but also the large investments of the tourism industry in that area.

The Red Sea Governorate started the tourism development on the area on the beginning of the eighteenth; the main target of this early phase of development was to attract pioneer investors to start the life cycle of the area as an international new destination. At this time no consideration had been given to preserve the natural beauty of the area due to the limited knowledge and understanding of the natural ecosystems.

This paper presents the development of the EIA system for the Tourism sector in Egypt and the efforts made to develop an independent department to handle environmental issues within the Tourist Development Authority (TDA). According to the Egyptian law, the TDA is the competent authority responsible for licensing the construction of any tourist development. The interrelation between the TDA and the Egyptian Environmental Affairs Agency and the proponent is briefly presented in the paper. The paper also presents the future perspective of the TDA to reach sustainability.

## 2. OVERVIEW OF EIA SYSTEM IN EGYPT

In February 1994, the Government of the Arab Republic of Egypt has issued law No.4/94 concerning protection of the environment. The objective of the law was not only addressing pollution measures and control, but also involved new developments and projects including expansions of the existing ones.

According to the law for the Environment (law No.4/1994), the Egyptian Environmental Affairs Agency (EEAA) was established and replaced the Agency established in 1982 in all rights and obligations. The EEAA has a public juridical personality and is affiliated with the competent Minister of State for the Environmental. In this respect, the EEAA formulates the general policy and prepares the necessary plans for the protection and promotion of the environment law, enforcement is another mandate given to the agency.

New establishments are required to carry out an Environmental Impact Assessment (EIA) before construction. Article no.19 through 23 and 70 through 73 of law 4/94 stipulates measures related to the EIA. Relevant articles in the Executive Regulations complement the law. The executive regulations were issued by the Prime Ministers decree No.338 of 1995.

#### 2.1 EIA CATEGORIES

Several discussions had taken place in 1994 between the Egyptian Environmental Affairs Agency and the line ministries for the screening of the different projects an Egypt. Following the discussions, guidelines for EIA had been issued by the EEAA in 1996. Local and foreign experts had contributed largely in the preparation of the EIA guidelines.

The list approach stated in the Egyptian guidelines depends on screening projects into three categories based on different levels of EIA required according to severity of possible environmental impacts.

- A white list project for establishment with minor environmental Impact. This list will be referred to later as category A.
- A grey list project for establishments, which may result in substantial environmental impact. This list will be referred to later as category B.
- A black list project for establishments, which require a full-fledged EIA due to their potential Impacts. This list will be referred to later as category C.

The guidelines (EEAA, 1996) had also included a screening form A for the white list projects, a screening form B for the gray list projects and a brief outline for the full-fledged EIA. The guidelines were presented late 1996 to the investors, bankers, and non-governmental-organizations. The law had specified that the proponent should submit the EIA form or study to the EEAA through the Competent Administrative Authority (CAA). The EIA must then be reviewed by the EEAA. The Tourist Development Authority (TDA) is the CAA in the tourism sector in Egypt.

According to law 4/94, the EEAA evaluation process should take a maximum of 60 days, otherwise considered approval. The law had also allowed for a permanent appealing committee as discussed in the law, the executive regulations and the EIA guidelines. As part of the evolution of the central department and in 1998, the reviews of the (white) list projects were delegated by the agency to the CAA.

#### 2.2 REVIEW OF EIA

Upon the start of the law 4 in 1994, the central agency represented by the EEAA and the Competent authorities such as the TDA were faced with lack of trained staff for review the

limited experience within the national consultants. The EEAA had relied on International community for the technical support in the beginning such as Dfid and Danida, while the TDA had relied on local consultants such as university professors. Experience in the field of EIA had started to grow up either outside or inside both authorities. However, capacity building and awareness of local consultants still needs to be increased to ensure the EIA quality.

In 1994, the EIA department had only two young graduates working as part time, in 1997 the number of employees had been increased to 3 graduates working as full time, and since 1998 this number had been increased to 10 full time employees. Following this trend, the TDA had also increased its capacity from one part time researcher in 1994 to set up a separate department with fifteen graduates of different back grounds. The increase was the result of the increase in the number of EIS reports or studies which are submitted to the TDA and accordingly to the EEAA and also as a consequence of the limited duration given for review and decision making.

Since 1994, the EEAA had started to receive EIA from different Competent Administrative Authorities and the number of authorities is increasing every year. In 1998, the Minister of State for the Environment has started a campaign for promoting the EIA when applying for the license. The Minister contacted all local governments and informed them with the necessity of EIAs. This campaign resulted in tremendous increase in the number of EIA submitted. Figure (1) shows the number of EIAs submitted to the EEAA –as categories B and C- since 1994 (Abul-Azm, 2001).

With the increase of the number of studies and the limited duration allowed for review, building the capacity of internal employees were found to be essential for building up a sustainable and trusted system within the agency.

Figure (2) presents the percentage of EIAs received at the EEAA categorized per sectors in the year 2000 for all categories. Despite the fact that this figure may indicate that the tourism sector occupies a small percentage of the total, but its importance arises from two facts; (1) most of the studies submitted are of category C and it requires special attention during review and, (2) due the fact that biodiversity issues are considered a high priority along the Egyptian coast line.

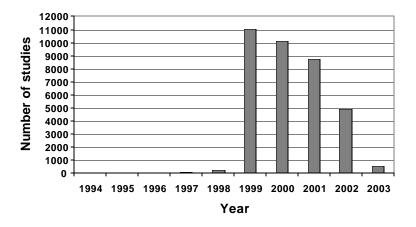


Figure (1): Number of EIA studies received at EEAA annually (Only first quarter of 2003)

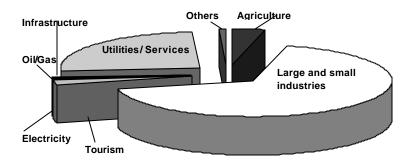


Figure (2): Categories of EIA Studies by Sector in year 2000.

Figure (3) presents the number of EIA submitted by the TDA to the EEAA compared to the total number of full fledged EIA's received by the EEAA.

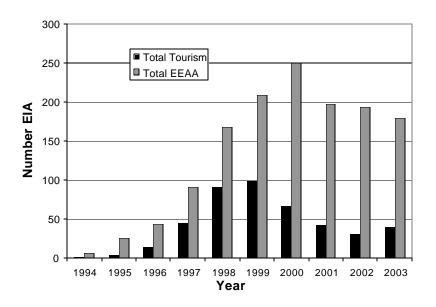


Figure (3): EIA's submitted by TDA compared to the Total Studies of Category C

## 3. TOURISM SECTOR

The Tourist Development Unit had been established in the late 80's by a fund of the World Bank. Its main objective was to encourage investment in the tourism sector in Egypt and to ensure that environmental dimensions are taken in the planning process. Upon its development the unit was only concerned by main developments along the Red Sea and particularly outside the city limits. Pilot areas were considered such as Sahl Hasheeh area (36 million square meters) and Abu-Soma area (10 million square meters), both areas are south of Hurghada city along the Red Sea.

In 1993, the tourism development Authority TDA has been established by the presidential decree and the law no. 7, 1993, as a new authority to facilitate, promote and control the tourism development outside the municipalities with new approach of development combine both the development and environment in the tourism development process. The Presidential decree had given larger mandates to the TDA to cover all geographical locations in Egypt. The main objectives of the TDA remained unchanged but the geographical location had been increased. Environmental concerns had taken a high priority particularly in the Red Sea Area. This area covers a coastal length of approximately 1500 KM. including the Gulf of Suez, the Egyptian side of the Gulf of Aqaba and the Red Sea Proper to the boarders of Sudan to the South, Figure (4). Particular attention was given to the Red Sea due to its pristine and sensitive environment. The TDA had since become the Competent Administrative or the Licensing Authority for Tourist development in Egypt. Responsibilities of the TDA is however limited to areas outside the city limits.

The establishment of the TDA were timed with the adoption of the Egyptian Government to the Law of Environment (Law 4/94) and EIA had become compulsory to all establishments. In 1996 the Egyptian Environmental Affairs Agency had categorized Tourist developments as "Black or type C" which requires a full fledged EIA.

## 3.1 THE RED SEA DEVELOPMENT PLAN

In the Red Sea the area allocated to the TDA for tourism development lies in the coastal zone with width 5 km stretched along the Red Sea Coast from km 25 North of to km 680 South of Hurghada city, and some 20 km to South of Halaieb city close to the boarders of Sudan. In 1993, the TDA had prepared regional and sector developments plans for the Red Sea Coast to use the unlimited potential of this region. These plans aimed to create new growth poles areas and new potentials for tourism investment. The regional development plan of the Red Sea Coast had focused primarily on the beachfront resorts and village and is defined in terms of six primary sectors, as indicated in Figure (4), namely:

- Hurghada city.
- Hurghada- Safaga, stretched from Makadi Bay to Abu Soma
- Safaga-Qusier sector.
- Qusier Marsa Alam sector,
- Marsa Alam to Ras Benas,
- Ras Benas

In the past few years, the TDA had adopted a planning concept that depends on dividing the tourist Red Sea region into sectors which are defined as an area with homogenous characteristics of about 30 to 70 Km in length encompassing usually an established community and more than one smaller area suitable for development as a centre. "The Centre" is defined as a specific tract of land encompassing several sites for hotels, villages, recreational facilities and a central commercial core forming an integrated social services and infrastructure support for tourism activities.

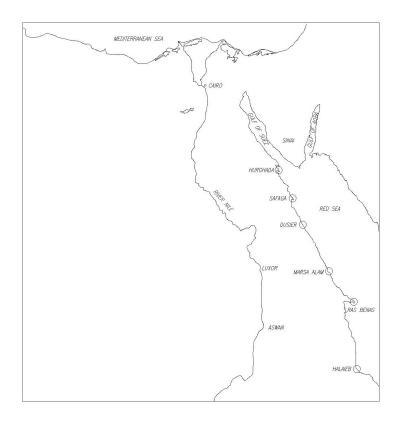


Figure (4): Map of Egypt showing boarders of development along the Red Sea

At early stages of the development, the private sector takes its leading role to develop the region. This is supported by good regional road and airport, which connect the region to the rest of the country and the world through Hurghada airport (and now Marsa Alam Airport which is under operation since 2003).

Two decades later of the tourism development in Red Sea, experience had shown that the development process still threats the natural environment of the Red Sea and ignore the importance of the ecosystems. The existing intensive development still fails of combine natural protection and austainable tourism development. The challenge is how to introduce development pattern that respect and protect the natural asset of the Red Sea ecosystems which satisfy the development requirements of Egypt.

A tourism centres (TC) is defined as a modular planning unit that falls in the middle of the hierarchy above the tourist project and below the sector. The idea of tourism centres has widely appealed to Egyptian investors and enjoyed a large base acceptance. The tourist centre is then managed by a company which often involves investors within the centre. This ensures that that management is done centrally and in an integrated fashion particularly for the infrastructure and the protection of the environment. The enthusiasm to form the integrated development companies is at rate higher than TDA expectations. Several centres have been development into a well-orchestrated harmony. The results of all these efforts were positively reflected on the environment as one of the main issue in the sustainable development and hence revenue for these centres.

The number of tourism centres had reached 52 centres in Egypt. The Red Sea region alone includes 24 centres. For half of them, the Integrated Development Company has been already formed and the other half is expected within the next few years.

## 3.2 ENVIRONMENTAL IMPACT ASSESSMENT IN THE TDA

EIA in the TDA had started since its development as a unit in the late 80's. According to the Egyptian Law, the EIA is submitted to EEAA through the TDA. In the late 80's and early 90s there were no permanent reviewers to take charge of the EIA review within the TDA, this was mainly done by hired consultants. With the increased mandates of the TDA, new graduates had been hired in 1996 and trained to review EIA's submitted by the proponent to the TDA. External consultants were still hired to do the external review.

In 1997 the EEAA had acquired a pilot project along the Red Sea in coordination with the Dfid. This project had been implemented by the "Support for the Environmental Assessment and Management SEAM project" where a number of touristic developments along Hurghada area were considered, The original proposal for each development involved either land filling of the rich tidal flat or shore dredging solutions, The law for environment does not allow filling or dredging in sensitive areas along the Red Sea without taking a proper EIA. In this project, the EEAA had taken the initiative to provide solutions for the investors. This pilot project was to study alternatives for the original proposals of the proponents (Abul-Azm and Jago, 1999). The project team consisted of nine national and international experts in different fields. The project had given solid and environmental friendly recommendations for the shoreline and beach developments for the resorts through an EIA study presented and approved in 1998 by the EEAA, the TDA and the Red Sea Governorate.

Two main outcomes of this project had arisen and assisted the TDA in developing their capacity in EIA. The first outcome is the arrangement of an EIA Training of Trainers workshop which was held in Cairo and Hurghada and provided by international consultants from the University of Manchester (Fawzi and Abul-Azm, 1998). The UNEP manual for Training of Trainers was translated into Arabic and used as a guide. Audience were mainly representing the EEAA, the TDA, national consultants and university professors, results of the SEAM project were considered as a case-study in this workshop.

The second outcome of this project was the preparation of draft EIA guidelines for developments along the Red Sea. This draft guideline were later enhanced and published by the Global Environmental Facility (GEF), World Bank (TDA, et al. 1998). A checklist had also been issued by the TDA for reviewers to ensure the quality of the EIA. This guideline is still used by the TDA and the EEAA for full fledged studies. Other Guidelines that had been issued by the TDA had included Environmental Management and Best Practice for Coastal Hotels and Resorts (TDA, 2000), and EIA guidelines for Golf courses on the Red Sea Coast (TDA, 2002).

In order to reactivate the role of environmental impact assessment studies in tourism development projects, and in the course of performing its role and responsibility, the TDA is currently reinforcing operating procedures to Improved EIA technical guidelines and procedures and an approved monitoring and documentation system of the Environmental Monitoring Unit within the TDA.

The efforts of the newly established department within the TDA had worked closely with the EEAA and the local Governorates in an integrated fashion since 1998. For example a joint committee between the three institutions had been formed to define the set-back line for new developments along the Red Sea. Between 1999 and 2001 this committee had surveyed more than 400 Km of coast lines and defined the set-back line for each development. The results of

this technical committee had facilitated the review and approval of EIA's submitted by the proponents.

The efforts of the new department at the TDA included the followings;

- 1. In 2000 and after the TDA had adopted the concept of Integrated Development Centres (IDC), it was realized by both TDA and EEAA that recategorization of developments along the Red Sea could be achieved. A full fledged EIA of the IDC is necessary for approval of any individual resort. The TDA / EEAA had issued an improved EIA technical guidelines and procedures developed by the TDA, and issued and adopted by EEAA. Two EIA guidelines and screening forms are currently in use which are the; Environmental Screening Form B for Individual Hotels and Resorts (TDA, 2001) and Environmental Screening Form B for Recreational Jetties. The screening form B could be used by individual resorts or hotels located in an IDC with approved full fledged EIA. The new screening form addresses only local issues inside the resort and does not need an integrated or full fledged study. The full fledged EIA for the IDC is still following the same guidelines published by the GEF in 1998 (TDA at al. 1998).
- 2. An approved monitoring and documentation system for the TDA. This includes structuring of an Environmental Monitoring Unit (EMU) that performs the TDA monitoring responsibilities and reports on the level of compliance.

This EMU is currently under re-structuring to upgrade it into a department. Mandates of this department is to monitor and reports developers' compliance with EIA implementation as it relates to the TDA construction permit and other environmental practices. The TDA focus is now on creating and operating the working system for the monitoring and reporting systems.

The monitoring and reporting systems includes mainly guidelines and checklists for the natural resources monitoring (coral reef, mangrove and wild animal) and tourism facilities monitoring (marinas, artificial lagoons, waste water plants water treatment plants, water treatment plants, electric power generating , waste disposal site and fuel stations). Monitoring guidelines and checklists for field work formats constitutes a manual for the EMU and currently represent the backbone of the monitoring system. These manuals also include laboratory operational guidelines.

Guidelines components are designed to be flexible and to include future topics. Currently the guidelines in the EMU manual had been extended to include the operation for marinas and the design of artificial lagoons (see also Abul-Azm, 2003).

Collection of baseline data and existing information on facilities is another mandate of the EMU. In the past two years the EMU had collected data and information on the existing Power plants, waste water treatment plants, desalinization plants in the Hurghada – Safaga sector. They had also collected baseline data on "Mangrove" vegetation on TDA lands in the Red Sea region and in coordination with the EEAA and the Red Sea local Government.

Within the framework of building the Environmental Monitoring Unit, a number of analysis and measurement laboratories are being prepared to monitor environmental changes in the tourism centres, whether tangible and visible by the naked eye or through high-precision, high-tech measuring equipment. The Laboratory Unit comprises well-equipped laboratories that will be located; in Cairo (main laboratory), in Hurghada along the Red Sea, and in Jabal Al-Jazira Al-Hamra tourist centre this is beside the mobile laboratory.

3. A main and pivotal objective of the Environmental Monitoring Unit program was to build capacities of the Unit staff to qualify the environmental specialist at the TDA to monitor and measure various environmental changes and variables on site throughout the project life cycle. Specialists are trained to take fully representative samples in a sound scientific method, and to determine components for analysis. They are also trained to compare results against local and international standards and rates, to identify divergence, and to determine pollutants. Part of the training involves drawing up a short-term plan toward off danger and taking part in drafting long-term plans to preserve environmental heritage.

In the past three years an intensive training program was devised and implemented, covering the following:

- Training on GIS;
- Training on using GPS;
- Training on using mobile environmental monitoring equipment on site
- Training on compiling and filling in analytical monitoring list and environmental reports and
- Participation in workshops, conferences and training courses in Egypt and in Australia, Malaysia, South Africa, USA, and Jamaica.

#### 3.3 FUTURE PERSPECTIVES

The TDA had adopted a long term plan that includes:

- (1) Establishing tourist zones and overseeing the implementation of development plans for them.
- (2) Identifying five development Regions namely; Sinai, Red Sea, Nile valley, Western Desert and Mediterranean Coast. Each has been analyzed and divided into a number of sectors. Each sector was evaluated against chosen criteria including accessibility, quality of resources, and existing infrastructure.
- (3) Drawing a set of targets to be achieved within the above development regions. These targets are summarized as follows:
  - Improving infrastructure (transportation, communications, power stations, desalination plants, sewage treatment facilities and solid waste management).
  - Linking tourism sites into an integrated framework.
  - Monitoring the application of environmental regulations.
- (4) Consider Ecotourism as an alternative plan particularly in protected areas. Wadi El Gemmal in south of the Red Sea is a pilot project which is currently under development.

The strategy of the (TDA) aims to achieve sustainable development which is based on environmental planning, and directed towards the preservation of natural assets. The strategy requires carrying out the following tasks and scopes:

- Surveying of priority coastal zones to collect baseline data and describe current status of the environment including: topography, marine life flora and fauna, climate, soils and geology, cultural and visual resources.
- Identifying the critical marine and terrestrial habitats and the preparing of environmental guideline and criteria for development.
- Preparing land use maps for priority areas, including identification of suitability for various types of development.
- Preparing the principles and guidelines for environmental impact assessment for the different tourist activities and projects.
- Building the capacity to review the environmental impact assessment (EIA) of the projects.
- Preparing a program for environmental monitoring.
- Establishing the environmental Geographic Information System (GIS).
- Establishing the environmental sensitivity mapping for the development areas.
- Establishing the environmental management system (EMS) for the different projects.

#### 4. CONCLUSION

This paper presented a brief description of the EIA system in Egypt -defined within the context of law 4/94- and describes the steps taken by the Egyptian Government to build the capacity of the Tourist Development Authority to handle review and monitoring of EIA Future vision in the Tourism sector is also presented to show that sustainability is a vital objective to achieve in Egypt.

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