

EIA TRAINING FOR TOURISTIC COASTAL DEVELOPMENT IN EGYPT

M. A. Fawzi (1) and A. G. Abul-Azm (2)

(1) Head, Environmental Management Sector, Egyptian Environmental Affairs Agency, Cairo, Egypt.

(2) Associate Professor, Irrigation and Hydraulics Dept., Faculty of Engineering, Cairo University, Giza, Egypt.

Abstract

This paper displays the Egyptian efforts in the field of training for environmental impact assessment. This field is relatively new between stakeholders, e.g. licensing authorities, developers and consultants. The paper presents a case of EIA training workshop supported by the DfID. This training programme was one of the very few programmes which concentrates on EIA for coastal touristic developments. This training workshop had participated in setting up a newly tailored guidelines for touristic developments in Egypt. The paper also presents a comparison between the old guidelines adopted by the Egyptian Environmental Affairs Agency and the new guidelines. Those modified guidelines are currently under study by the agency to be issued as model guidelines and to be followed by consultants or users.

Introduction

The coastlines along the Mediterranean and the Red-Sea in Egypt comprises more than 3000 Km. The coastal area of Egypt, however, is under severe and increasing pressure. Touristic developments is one of the major causes of increased pressures in the coastal areas of Egypt. After passing the law for the environment (Law 4) in 1994, the Egyptian Environmental Affairs Agency (EEAA) was given specifically, in a broader sense, the authority to implement the law. EEAA has a public juridical personality and is affiliated to the competent Minister of State for the Environment. In this respect, the EEAA formulates the general policy and prepares the necessary plans for the protection and promotion of the environment. Also, it follows up the implementation of such plans in coordination with competent administrative authorities. Integrated Coastal Zone Management (ICZM), protection of water environment, environmental impact assessment (EIA), environmental monitoring networks, management and supervision of natural protectorates, are amongst the areas regulated and addressed in law 4/94. In light of the growing global concern about environmental problems and the importance of achieving sound management of the natural resources, within the framework of sustainable development, the Government of Egypt has issued Law no. 4/1994 concerning protection of the environment. The objectives of the law has not been confined to addressing pollution problems emanating from existing establishments / developments, but also to involve new developments including expansions of the existing ones. New developments or expansions are required to carry out an environmental impact assessment before construction. The main objective for carrying out an EIA for new developments or project is to support rather than prevent the development activities in Egypt. Identifying the negative and positive impact of the project can lead to prevent the negatives and maximize the positive which lead to a sustainable development. The EEAA aims to help the competent administrative authorities or the licensing agencies (CAA) in implementing and enforcing Law 4/1994 concerned with the EIA.

Environmental Impact Assessment in Egypt

Environmental impact assessment (EIA) is the systematic examination of unintended consequences of a development project or programme, with the view to reduce or mitigate negative consequences and capitalize the positives. In practice, this means studying and analyzing the environmental feasibility of any proposed project, as the implementation or operation of proposed development may affect the environment, natural resources and/or human health. Law no. 4/94 states that the environmental impact of certain establishments or projects must be evaluated before any construction works are initiated or a license is issued by the CAA. Executive regulation of the law (approved in 1995) identifies the projects which must be subjected to an EIA based upon main principles such as; the type of activity, exploitation of natural resources, location of the project and type of energy used in the operation. To facilitate the paper work in the EEAA, a system encompasses a flexible screening procedure had been set which classifies the projects in to three groups. These groups reflects the different levels of EIA requirements according to severity of possible impacts. The three categories are; the white list projects with minor environmental impacts, the grey list for projects which may result in substantial environmental

impacts, and a black list for projects which require a full fledged EIA due to their potential impacts. Figure (1) presents an overview of the EIA system and processing of application.

Coastal Touristic Developments

Within the context of the Egyptian ICZM framework programme, which was issued in December of 1996, four issues had been identified. The issues are; the shoreline erosion, irrational land use, water pollution, and deterioration of natural resources and habitats. Currently the EEAA had adopted guidelines for EIA in the coastal areas.

The current guidelines states that the study should include the following chapters;

- (1) Executive summary
- (2) Descriptions of the proposed establishment.
- (3) Legislative and regulatory considerations.
- (4) Description of the environment. (including physical, chemical, biological and socio-cultural environment)
- (5) Potential impact of the proposed project.
- (6) Alternatives to the proposed project.
- (7) Development of a monitoring plan.
- (8) Public participation.

EIA Training

Based on the above, and as EIA is a fairly new subject within the Egyptians, EIA training and environmental awareness programs had been recently received an increased attention by the EEAA. International donors, as DfID and DANIDA, are currently supporting EIA training and awareness in Egypt. In the second half of 1997, more than thirty workshops for EIA training and public awareness had been planned between the two donors. The workshops had focused on different themes such as;

- EIA capacity,
- benefits of EIA,
- social development and public consultation,
- the purpose of EIA,
- EIA process and guidelines in Egypt,
- administrative procedures and screening,
- EIA monitoring developments,
- EIA capacity building,
- impact of mitigating measures,
- assessment of report structure,
- identify conflicts between stakeholders,
- define environmental protection measures and communicate them to CAA,
- write an EIA review decision,
- international guidelines,
- screening and scoping, and
- strategic EIA.

The target groups for EIA training and workshops included; The line ministries, Governorates and environmental management units (EMUs), consultants and syndicates, Universities, and institutions, private sector and bankers, EEAA, and NGOs.

Train of Trainers Workshop

Particular attention is given in this paper to the "Train of Trainers" workshop for EIA. This advanced workshop had been held in September 1997, and focused to provide intensive training using Egyptian case studies in EIA methodology and process. Also to incorporate EIA management, social development, and impact interpretation. It had given enough back ground to the trainees, who had a previous exposure to EIA training, to become future trainers. The workshop was arranged by Prof. C. Wood of the EIA center at the University of Manchester. The workshop materials used were;

- "The EIA training resource manual" prepared by UNEP,
- "Environmental Impact Assessment" by L. W. Canter, and
- "EIA for Melia Pharaoh Resort in Hurghada".

The group consisted of 22 trainees from different scientific backgrounds. It included university professors, private consultants, NGO representatives, CAA and employees EEAA. The main objective of the course was to prepare trainers who can have the background to train others in the field of EIA. The workshop was held for ten consecutive days. In the first seven days, the following points were covered;

- overview of EIA and strategic EIA Introduction, (SEIA),
- Public involvement,
- screening,
- scoping,
- assessing,
- social impact,
- reporting,
- reviewing,
- decision making,
- monitoring,
- implementation and auditing.

The workshop had also included a discussions for an EIA of "Melia Pharaoh Resort, Shore development" in South of Hurghada. The study was prepared by the Support for Environmental Assessment and Management (SEAM) project, through partial finance of the UK Department for International Development (DfID).

The original shore development of this project (according to the initial plans) included a key hole marina in the intertidal flat which reaches a width of 350 m during low tides, land filling to reach a swimming depth and an artificial island in front of the resort. The "SEAM" EIA team had severely criticized this plan, and started a very thorough field survey programme which lasted for four months to collect data. Findings of the survey had reported two natural lagoons with sandy bottoms within 150 m only from the shore line which can be used for swimming. The team had come up with an alternative plan for the shore development of this resort, which included submerged walk ways to the lagoons and to the coral reef site. This coral reef site, which was found during the survey, was initially planned to be excavated for a marina. The modified plan had also included an elevated walkways on pile ended by a mooring platform for boats. The last three days of the "Train of Trainers" workshop were spent in the Resort (which was opened in March 1997). Discussions of the EIA case study was made in the form of a public hearing, which had positively added very interesting points to the study. These positive points which had come from an elite Egyptian team of experts were actually translated in terms of new EIA guidelines. This new guidelines can be implemented for coastal touristic developments, generally in Egypt and particularly to the new developments in the Red Sea. These guidelines are discussed in the next section of this paper.

New EIA Guidelines for Coastal Touristic Developments

This section of the paper presents the main points discussed in the train of trainers workshop which suggested the new EIA guidelines for coastal touristic development projects. Although it is general to be used in all developments in the coasts of Egypt, but it gives a specific reference to the issues faced by the developers in the Red Sea. In those areas, developers are faced with the wide intertidal flat during low tides, sometimes covered by dead reef, silt or algae. The new guidelines takes basically the same headings of the old guidelines presented previously. However, it stressed on the following issues to be included in the EIA prepared by a proponent in his future development:

- Summarizes the legislation framework in Egypt including the; ICZM framework programme, law 4/94, its executive regulations, ministerial decrees, and governorate orders.
- Description of the proposed development should include; objectives of the proposal, layout and associated facilities, site preparation and construction methods, infrastructure considerations, other services in the locality (particularly for marinas, jetties and lagoons). Use of local and regional maps and photo-montages to show the development before and after development is recommended.

- The guidelines had stressed on conducting separate studies e.g.; hydraulic modeling, sediment transport modeling and shoreline morphology changes for structures interfering with the shoreline, water quality modeling for artificial water bodies, hydrological studies for development in flood plains, traffic and navigation studies, feasibility and market studies, social impacts for large urban developments.
- In the description of the environment, the proponent must prioritize the issues affecting the environment.
- Baseline data and impact assessment must include the following issues; land surface, water quality and hydrological, waste water and solid waste management, air quality, noise and visual, land or water transport, historical and cultural, hazards assessment, social and economic.
- Impacts during construction has to be stated clearly for location of buildings, number of workers, source of building materials, construction waste issues, water supply and waste water issues, site levelling, temporary works...etc.
- The guidelines had given particular attention to the marine and terrestrial fauna and flora issues. It emphasis on the necessity of setting a comprehensive field survey program rather than generic studies. Potential impacts on fauna and flora includes; directly through dredging and indirectly by; sedimentation, access to light, induced bank collapse, a change in substrata, effects of boat wash and changes in water quantity, movement or groundwater regime; and disturbance on biodiversity.
- Significant environmental impacts should summarize the impacts of the project on the general and specific issues. Positive and negative impacts, reversible and irreversible damages, both during construction and operation must also be identified and should differentiate between direct and indirect impacts.
- Alternatives and mitigating measures should consider the strategy to demonstrate how the proposal and its environmental safeguards would be implemented and managed in a sustainable, integrated and feasible manner. This section of the study should also demonstrate that the proposal is capable of complying with statutory obligations under other licences or approvals.
- Consideration of alternatives should include an assessment of the environmental impacts or consequences of adopting alternatives, including the location, type and layout of the development and services, e.g. hotels, marina, breakwaters, lagoon, channel alignment, carrying capacity on the beach and the reef, management or administrative practices, mitigation and rehabilitation options
- The selection of the preferred option should comply with the principles of ecological sustainability listed earlier, and include the followings; type, quality and scale of services, environmental factors including biophysical, economic and social factors, results of other studies e.g, traffic analysis, hydraulic models, feasibility or others. Preference should be given to soft rather than hard solutions which involves filling and dredging.
- The new guidelines had also given a reference to the environmental management plan which is a document designed to ensure that the commitments in the EIA, subsequent assessment reports, and approval or licence conditions, are fully implemented. The management strategy should demonstrate that sound environmental practice will be followed during the establishment, operation, rehabilitation and end use of the development. Public awareness and training programs for operational staff is an important item in the EMP.
- Specific mitigation measures have to be stated including; proposed mitigation and management measures to control impacts on land surface issues and estimate of mitigation effectiveness. Measures include; stabilization works, erosion and sedimentation control structures, landscaping and re-vegetation proposals; measures to ensure compliance with relevant standards; and compensatory planting or restocking of indigenous species.
- Residual and cumulative Impacts might still exist after mitigation. Description of residual and cumulative impacts should include: water quality, vegetation or fauna habitat; road vehicular activities, noise or visual impacts and loss of heritage items; loss of access to public land and waterways, the advantages or disadvantages of clustering touristic developments or marina operations in the area, and the compatibility of; the mitigation measures or other plans.
- The monitoring plan should be carefully designed and related to the predictions made in the EIA and the key environmental indicators which would demonstrate the potential ecological sustainability of the proposal. The EIA should outline the need for, and use of any proposed monitoring plan, its interval and reporting procedures.
- Parameters which may be relevant in monitoring include; performance indicators such as, water quality (sea, surface or potable), shoreline morphology, soil, noise and air quality, public health indicators, land surface and hydrology, fauna and flora, waste management; performance indicators in relation to recycling and reuse, and monitoring of complaints received.

Conclusions

This paper presents the EIA system in Egypt and the current efforts made in EIA training with the support of international donors. Particular attention was given to the "Train of Trainers" workshop which had contributed in setting new and enhanced principles towards a new EIA guidelines for the coastal touristic development in Egypt.

The paper had presented the main points of concern which has to be stressed upon in future EIA for coastal developments. The objective of the paper is not to present the EIA guidelines, which may be known or useful to others interested in this topic. The main objective is to share this Egyptian experience, which proves the importance of training. Share of basic ideas through such training programs will positively lead to an enhancement of the system as this little experience can tell us.

References

Arab Republic of Egypt, Cabinet of Ministers, Egyptian Environmental Affairs Agency, Environmental Management Sector, 1996, "Guidelines for Egyptian Environmental Impact Assessment".

Arab Republic of Egypt, Cabinet of Ministers, Egyptian Environmental Affairs Agency, Environmental Management Sector, 1996, "Framework programme for the development of a national ICZM plan for Egypt".

Larry W. Canter, 1996, " Environmental Impact Assessment", McGraw-Hill International Edition.

Sheranco for Tourism and Projects, October 1997, "Environmental Impact Assessment for the Beach Front Development of Melia Pharaoh Resort, Hurghada", a report prepared by SEAM project.

United Nations Environment Programme, UNEP, Environment and Economics Unit, June 1996, " Environmental Impact Assessment, Training Resources Manual".