European Journal of Scientific Research, (ISSN: 1450-216X)
Vol. 1, No: 2; 87 – 96. March, 2005

Publisher: Lulu Press, Inc. Morrisville, USA

Comparison of the Environmental Impact Assessment procedure in Iran with the other countries

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Abstract

The significance and role of Environmental Impact Assessment (EIA) toward environmental planning and management of the potential impacts made to the environment, necessitates a comparison of the EIA procedure in Iran with that in other countries around the world. To this end, 10 countries and regions comprising developed countries (Canada, Finland, New Zealand and Belgium), developing countries (Brazil, Ghana, Jordan and Taiwan) as well as the Arctic and the Antarctic in regard with the special ecological conditions and special aspects of these regions, were selected. Then, information on the EIA procedure in each of these countries and regions were collected. At the first step, the EIA procedure in Iran was thoroughly observed and investigated. The procedure was then studied in the other selected countries and compared with that in Iran. A comparative study was conducted to investigate the EIA procedure in the selected countries and comparing them with that in Iran. For this purpose, each stage of the EIA procedure and the methodology for preparing an Environmental Impact Statement (EIS) in Iran and the designated countries and regions were studied, investigated and then compared with each other. Based on the results of the comparative study, the most important shortcomings of the EIA model in Iran might be described as follows: 1) absence of public participation in the decision-making process 2) non-compilation of a strategic environmental assessment model, leading to non-inclusion of environmental principles in the preliminary stages of making policies, plans and programs. Finally, based on the studies conducted, a number of suggestions and solutions were presented for improving the EIA procedure in Iran and for further perception of the significance and role of this procedure as a managerial tool in order to create a balance between industrial activities and environmental protection.

Introduction

Environment is an enormous and intricate web of a variety of active elements and components which has come into existence as a result of the gradual evolution of living organisms and constituents of the earth surface. As such, the environment affects human activities and is affected by them. Diversified economic and industrial activities, employment of advanced technologies and an increasing population growth have all led to the loss of the required equilibrium, harmony and order among the elements of the nature. Therefore, man can be considered as the most effective and the most important factor behind environmental changes. Whatever their nature, man's activities toward development will have different effects on the environment (Shariat, 1997).

Since the environment and development are two inseparable issues, it is essential to employ and use environmental management tools to minimize the damages made to the environment. To this end and for the purposes of ensuring environmental protection and fulfilling the objectives of sustainable development, a new scientific method and managerial tool called "Environmental Impact Assessment (EIA)" emerged in the early 1970s (Kennedy, 1998).

The principal idea behind the Environmental Impact Assessment of projects is to create a balance between human activities and the environment. EIA can be considered as a method for determining, predicting and interpreting the environmental impacts of a proposed project on the whole environmental system, public health and ecosystems health. EIA is one of the rational ways of achieving the objectives of sustainable development and can be placed at the disposal of managers as a planning tool to assist them in identifying the potential environmental impacts, which emerge as a consequence of the execution of development and industrial-infrastructural projects and in choosing rational options to solve them (Jay, 2001).

Concerns about the environment, which arise from the projects implementation, are rising day by day. For this reason, governments and international organizations are seeking to prepare a set of regulations whereby they would be able to legally bind projects' employers and development plans' authorities to comply with environmental rules and regulations in the preliminary stages of making policies, plans and programs (PPP). Therefore, a new branch of assessment called "Strategic Environmental Assessment (SEA)" has emerged in order to improve the EIA procedure. SEA is an attempt to assess the impacts of policies, plans and programs in the future of an environmental area thereby enabling the specific strategy of the EIA within that specific area to be determined (Weston, 2000).

Preparing an environmental impact statement would make projects' authorities be aware of the procedures of site selection, project implementation and potential impacts mitigation methods. In addition, the EIA results help government officials make decisions on the grant of authorizations to projects. Therefore, environmental impact assessment is the procedure of an official study aimed at predicting the potential impacts of a proposed project with emphasis on the presentation of mitigation methods (Stallworthy, 2001). Figure (1) indicates the major elements of an EIA procedure.

The primary objective of preparing an environmental impact statement is to ensure policies and goals set out in a project's programs and activities are in compliance with environmental standards, rules and regulations set by governments. Therefore, an environmental impact statement should include detailed information about the major and prominent impacts of a proposed project. Moreover, it should create maximum trust and confidence in decision-makers and in public by providing rational options which constitute the least impacts and all the conditions for enhancing the quality of the environment (winter, 2001).

Based on the above-mentioned points, the most important objectives of environmental impact assessment might be summarized as follows (Shariat, 1997):

- Eliminating and restoring the damages made to the environment;
- Enhancing the level of public awareness;
- Using public views in the decision-making process (Public Hearing);
- Employing environmental standards and integrating them with developmental planning;
- Creating a balance between the long-term objectives of development and the necessity for the majority of people to utilize development resources in line with environmental protection;
- Gaining knowledge of the critical environmental issues and problems, which require investigation, study, control and monitoring.

Although the development of Iran's EIA model is based on Western European and North American models, the nonconformity of this model with the prevailing

socioeconomic, cultural and institutional condition of Iran is among the reasons for the inefficiency of this model. Therefore, the goal of the present study, which was conducted in Iran in 2002, is to investigate the EIA procedure in Iran and to compare it with the procedures in other developed and developing countries, thereby appropriate solutions for enhancing the EIA procedure performance in Iran might be presented through identifying the strengths and weaknesses.

Study Methodology

Based on the topic and objectives of the present study, the research method employed at the primary stage was the survey approach, whereby the status of the groups was described by means of the descriptive method, which is one of the aspects of the survey approach. The subsequent stage in which comparison was drawn between the EIA procedure in Iran and that in other designated countries and regions used the comparative study.

Data collection was carried out through library and field study. For this purpose, the required information on the EIA procedure in Iran and the designated countries was gathered by making references to the resources available and exchanging views with EIA professionals.

Once the data was collected, each stage of the EIA procedure and the methodology for preparing an environmental impact statement in Iran and the designated countries and regions were studied, investigated and then compared with each other through the comparative study.

Results

By comparing the EIA procedure in Iran with that in the designated countries and regions, one can arrive at the strengths and weaknesses of the EIA procedure in Iran; hence proposing a comprehensive model for the EIA procedure. Table (1) shows the names of the countries designated for the present study.

Table1) List of the selected countries and regions

1	Canada	Developed
2	Finland	Developed
3	New Zealand	Developed
4	Belgium	Developed
5	Brazil	Developing
6	Ghana	Developing
7	Jordan	Developing
8	Taiwan	Developing
9	Arctic countries	Developed and Developing
10	Antarctic countries	Developed and Developing

The most important results and findings of the comparison of the EIA procedure in Iran and the selected countries might be described as follows:

1. On comparing the EIA procedure in Iran and the selected countries, great similarities were observed between the procedures in Iran and Canada. The only major difference was making consideration of public participation in the decision-making process. In Canada, public participation and views is the main criterion for approval of each stage of reviewing a proposed project's reports (initial and final reports) and even in making final decisions on the implementation or non-implementation of the project, while public participation is practically ignored in Iran's EIA model.

2. Based on the studies on the EIA procedure in Finland, one of the main principles is discussing the resolved or unresolved disagreements in environmental impact statements, which are informed to the public and which are likely to be used in the future. In the EIA procedure in Iran, however, this major issue has been ignored, that is, the results of environmental impact assessments are kept on file at the Department of the Environment and are not placed at the disposal of professionals, public and private sectors, or the public. This is while the results of environmental impact statements might serve as a model and prevent from repetitions.

3. One of the most important issues of the EIA procedure in such countries as New Zealand and Canada is the existence of EIA laws for each state or province. Taking into account the various geographical and climatic areas in Iran and the significance and values of their natural resources and considering the ecological, socioeconomic and cultural sensitivities of these areas, it is necessary that the type of projects requiring EIA and their scale be different for each geographical area.

4. Based on the studies and investigations conducted, one of the specific features of the EIA procedure in Belgium is taking consideration of environmental health, which is regarded as the Environmental Health Impact Assessment in stages two and three of the EIA procedure, while in Iran's EIA procedure, environmental health has not received any special attention.

5. According to the Supreme Council of Environment's Approvals in Iran, the distance between sensitive areas and the sites of projects that required EIA must be specified. There is an urgent need for this distance to be determined as no action has been taken yet. In Brazil, the assessment of projects, which are to be implemented in Amazon regions, has been highly emphasized owing to the significance and various ecological and economic values of the Amazon forests. In Iran, too, the Caspian forests have similar significance. Therefore, environmental impact assessment should become mandatory for a number of projects such as wood and paper industries, which have major impacts on the environment through different aspects.

6. On comparing the EIA criteria of Iran with those of Ghana and Jordan, it was found that the criteria of these two countries were not at a level that could provide appropriate guidelines for enhancing Iran's EIA criteria.

7. The investigations show that Taiwan has proved quite successful in performing assessments, particularly in comparison with the developing countries. Perhaps, one of the reasons for this achievement might be the formation of an EIA consultants' database by Taiwan's Department of the Environment. One of the major duties of this database is presenting a list of qualified consultants and the results obtained on investigating and reviewing environmental impact statements prepared in Taiwan. In Iran, the Department of the Environment does not introduce qualified real/legal entities for performing assessments so employers of proposed projects should

inevitably obtain such a list from the Management and Planning Organization.

8. Environmental monitoring and auditing is considered as one of the major principles and bases of the EIA procedure in selected countries, particularly in the Arctic and Antarctic countries, while in Iran this issue has not received as much attention as expected.

Discussion and Conclusion

To compare the EIA procedure in Iran with that in other countries, a number of countries were selected as samples. For this purpose, four developed countries (Canada, Finland, New Zealand and Belgium) and four developing countries (Brazil, Ghana, Jordan and Taiwan) were selected. The bases for selecting these countries were the existence of environmental laws and regulations, which necessitate the performance of environmental impact assessment, existence of an organization that enforce such regulations and existence of the records of a number of environmental impact assessments conducted for some projects. The Arctic and Antarctic regions were also investigated for their special ecological features, e.g. low threshold and long revival period and special assessment aspects of these regions due to being very remote.

The comparison of the EIA procedure in the selected countries and regions with that in Iran was conducted through the comparative study. For this purpose, each stage of the EIA procedure and the methodology for preparing an environmental impact statement in Iran and other selected countries and regions were studied and investigated and then compared with each other.

Based on the results of the comparative study, the shortcomings of the EIA model in Iran might be described as follows:

- Absence of public participation in the decision-making process;
- Lack of appropriate dissemination of information to the public and lack of a system for reporting the assessment results. Thus, these two weak points might rise the probability of repetitions;
- Ignoring the formulation of various EIA laws for different parts of Iran, which is highly required owing to the vastness of the land and the prevailing climatic and cultural differences;
- Lack of an appropriate database that might facilitate access to the list of qualified environmental consultants and professionals and their capabilities;

- Non-compilation of a strategic environmental assessment model, leading to non-inclusion of environmental principles in the preliminary stages of making policies, plans and programs;
- Lack of adequate attention toward environmental monitoring and auditing as one of the basic and major principles of the EIA procedure.

In addition to the results of the present study, which might serve as guidelines for other developing countries with similar conditions like Iran, the following recommendations are highlighted in order to improve the efficiency and effectiveness of the EIA model in Iran:

- Considering Iran's EIA model is based on Western European and North American models and has been developed without due consideration toward the prevailing socioeconomic, cultural and institutional conditions of Iran, it is necessary for Iran's model to be carefully reviewed in order to be adapted to the special socioeconomic, cultural and institutional conditions of Iran.
- Benefiting from public views and opinions and their practical knowledge, particularly the experience-based knowledge of the local residents of project sites in the EIA procedure.
- Formation of environmental impact assessment databases and information systems to be used by projects' employers. The proposed databases might include the results of environmental impact statements and lists of qualified environmental consultants and professionals. This can not only facilitate access to the required information, but also prevent from repetitions.
- Developing a comprehensive model for strategic environmental assessment aimed at considering environmental principles and laws in the preliminary states of making policies, plans and programs.
- Determining the type and scale of the projects requiring EIA in terms of the diversified climatic and cultural features and conditions of Iran.

References

Jay, Stephen and Handley, John, The application of environmental impact assessment to land reclamation practice, Carfax Publishing Ltd., Journal of Environmental Planning and Management, 44(6):765-782, 2001.

Kennedy, w., Environmental impact assessment in North America and Western Europe: what has worked where, why and how, International Environmental Report, 11(4):1239-1258, 1998.

Shariat, M. and M. Monavari, Introduction of environmental impact assessment, Department of the Environment, Iran, pp. 4-10, 1997.

Stallworthy, Mark, Sustainability: Land use planning and the environment, Cavendish Publishing, London, 2001.

Weston, Joe, EIA, decision – making theory and screening and scoping in UK practice, Journal of Environmental Planning and Management, 43(2):185-203, 2000.

Winter, Paul, Sustainable housing – the legal context. Part II: Environmental Assessment, planning obligations and the building regulations, Town and Country Planning, 70(2):50-51, 2001.

Figure 1) Major elements of an EIA procedure