

Students' Section :

## ENVIRONMENTAL IMPACT ASSESSMENT : A STRATEGIC MANAGERIAL DECISION MAKING TOOL

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### Introduction

Recently in Copenhagen, the capital of Denmark, world conference on climate change had been held. Many countries sent their representatives on various issues relating to world environmental crisis- such as global warming and climate change etc.

In this regard "Environmental Impact Assessment" is a very important area to analyze. The term "Environmental Impact Assessment" initially came to be used with the enforcement of the N.E.P.A (the US National Environmental Policy Act) on January 1, 1970 in the USA. Since then E.I.A has gained world wide acceptance. The E.I.A is focused largely on the bio-physical environment outside the home and work place and its relevant social and economic contradictions.

### Determination of Impact

Impact determination should be based upon five criteria namely:

- i. The magnitude of the possible impact
- ii. Its ecological significance
- iii. Its extent in space and time
- iv. The sensitivity or vulnerability of the elements in the country or the physical area
- v. The degree of irreversible damage caused

### Types of Environmental Impacts

There are various types which are mentioned below:-

- i. Physical and socio-economic
- ii. Direct (or primary) and indirect (secondary, tertiary, higher order)
- iii. Immediate, short run and long run
- iv. Local (micro-environmental) and strategic (macro-environmental-regional, national and beyond)
- v. Adverse (negative) and beneficial (positive)
- vi. Quantitative and qualitative

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- vii. Reversible and irreversible
- viii. Intended and accidental
- ix. Discrete and cumulative
- x. Actual (objective) and perceived (subjective)
- xi. Distribution by group and / or area
- xii. Relative to other developments<sup>1</sup>

A term that needs to be explained in connection with Environmental impacts is 'significant' so that we may judge whether an impact 'significantly' affects the quality of human environment. Most national legislations explicitly use the word, although it has not been clearly defined at any point. The concept of 'significance' is thus, overly subjective and is mostly the outcome of a collective judgment of assessment officers, legislators, decision makers and the public.

With regard to 'Environmental Impact Assessment' the geographical diffusion of the concept has resulted in a diverse nomenclature. By contrast, E.I.A is an official evaluation of the likely effects of a proposed policy, program or project on the environment, of alternatives to the proposal and of measures required to be adopted to protect the environment. The concept is sufficiently comprehensive and is applicable from the inception of a proposal to its implementation and involves post-project analysis (P.P.A) as well. Accordingly, E.I.A is complementary phases of the total Environmental Review (E.R) process.

E.I.A is a systematic, integrative, proactive process of predicting and evaluating an action, impacts on the natural and man-made environment, the conclusions of which are to be used as a decision making tool.

E.I.A is an anticipatory, participatory environmental management tool that can help, prevent environmental degradation by giving decision makers better information regarding the consequences of developmental actions on environment.

#### Objectives of E. I. A

The objective of E.I.A is not to force but only to guide decision-makers to adopt the least environmentally damaging alternative because environmental impact is just on the issues addressed by the decision-makers to adopt the least environmentally damaging alternatives as they seek to balance the conflicting demands of economic development and environmental protection. Social and economic factors may be far more constraining. Moreover, as decision-makers need to handle a disparate range of information as a basis for their decisions aggregation is always a recurrent problem. In this regard, E.I.A if rightly employed, can serve as an

integrative element in environmental protection policy, but is only one element in that policy, for decision-makers will probably have other appraisal techniques at their disposal.

#### Conclusion

E.I.A is, thus, the outcome of a long evolutionary process, the nature and utility of E.I.A is a function of time, space and the values and perspectives of those in its evaluation.

O'Riordon appropriately encapsulates the idea thus:-

"If one sees E.I.A not so much as a technique, rather as a process that is constantly changing in the fall of shifting environmental politics and managerial capabilities, one can visualize it as a sensitive barometer of environmental values in a complex environmental society. Long may E.I.A thrive".

#### References

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