

Environmental Impact Assessment with Special Reference to Water Resources Projects

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Water resources projects occupy an important place in the development of any country. A project has certain environmental impacts, which must be considered during the planning of the project. The development of a country is primarily considered to be based on economic parameters like gross national income, per-capita income, etc. However, in doing so enough weightage is often not given to environmental parameters of a country. Economic development that damages the environment is not desirable because such economic development is not sustainable. We can explain what sustainable development is in a few words. Sustainable development basically means that if our succeeding generations could be a party to the decision that we make today, they would agree to it.

To ensure sustainable development, the development must enhance the quality of the environment and if it not possible to do so, it should at least ensure that the environment is not degraded. In the context of water resources development, what does the word environment mean? Environment includes water, soil, flora, fauna and of course human beings. There has been a debate as to whether human beings or nature should be at the heart of environmental impact assessment. There are some people who believe that nature should be at the core of environmental protection activities and should be protected to the greatest possible extent. There are others who believe that human beings should be at the core of environmental protection and a project should enhance the quality of human life in ways other than economic.

It can be said that there is a hierarchy with human beings at the top, the environment in the middle and water at the bottom which means that water can be considered to be only a component of the total environment and environment is only one of the factors that make up the quality of human life. Environment Impact Assesment (E.I.A.) is a term generally used to asses the environmental impact of any project. For example, the construction of a high dam will result in creation of a large reservoir which will submerge forests, wildlife, villages and agricultural land. The proper rehabilitation of the affected villages is an important aspect of dam construction.

Similarly flora and fauna have to be preserved and if there are historical monuments within the submerged area, they have to be properly rehabilitated elsewhere.

It is often believed that development and preservation of the environment are in conflict but it need not be so. There is an example in the Midnapore district in West Bengal where a project, originally meant for flood control, has given rise to a beautiful lake which can be developed as a tourist spot.

Another question that is relevant pertains to as to when the E.I.A. should be conducted. One approach may be to conduct a cost-benefit analysis of the project based on economic considerations alone, and only if the project is feasible from economic considerations to go in for an E.I.A. Another idea is to conduct an Initial Environmental Examination (I.E.E.) at the time of initial planning of the project, thus embedding environmental considerations into the project conceptualisation. The I.E.E. need not be a very elaborate affair but may merely take into account the probable environmental impacts of a project in a loosely defined way. Another question relates to whether the group conducting the economic analysis should also conduct the E.I.A. or whether an independent group should be entrusted with the job of conducting the E.I.A. to eliminate any possibility of bias.

E.I.A. has been conducted for diverse cases. In Germany, E.I.A. has been conducted on the project of doubling some lock gates on the river Moser which flows past Metz in France and joins the river Rhine at Koblenz in Germany. In India too, E.I.A. has been used in numerous situations in water-related projects.

The environment is one of the key factors affecting the quality of human life. The floods in Kolkata of 1978 are still fresh in the minds of many people. Faulty urban drainage was one of the causes of that flood because storm water which flows in Kolkata from West to East was unable to drain out properly due, in part, to the rapid urbanisation of Eastern Kolkata. E.I.A. needs to be done before embarking on a planned expansion of a city, not only with regard to urban drainage but also with respect to other environmental factors affecting city life.

All said and done, E.I.A. is not a panacea for all environmental problems. Some environment-related problems may remain in a development project in spite of E.I.A. being carried out. However, E.I.A. can go a long way in enhancing the environment-friendliness of a project.

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