

## **Environmental Planning and Management- A Review**

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### **I. Introduction**

Environmental Management in the process to improve the relationship between the Environment and man so that "Environment quality" and human society may be improved. Environmental Management involves Socio-Economics development of the society on the one hand maintenance of "Environmental quality Environmental Management in, therefore, a compromise between Ecology balance, Ecosystem stability and human socio-economics progress and thus it must take into consideration the Ecological principles and socio-economic need of the society.

Management refers to conscious preference from the variety of alternative plans and proposals and further more that such choices involve purposeful commitment to recognize and desired objectives. T.O. Riordan (1971)

Managements employ strategies to realize the objectives.

The Environmental strategies are devised for –

1. Environmental planning.
2. Environmental status evaluation.
3. Environmental impact assessment.
4. Environmental legislation and administration.

According to "The term 'Environmental Management is generally related to environmental models which assures that food supply will grow with increased capital, annual agricultural inputs and land development, but on the other hand it also includes important limits to all these factors, challenges to be faced and the policies to overcome the problems. Dennis Meadows (1997)

### **II. Objectives of Environmental Education**

There are several governmental and non-governmental organizations to educate people and to create awareness of environment. A department of environment has been set up in (1982) on environmental information system for this purpose. There is a centre for environmental education at Ahmadabad. There are more than two hundred private organizations working for environmental education.

The environmental education aims at developing in the child awareness and understanding of the physical and social. Environment is its totality; fortunately 'Environmental Education' has been introduced in the curriculum from our early stage in our country. Kothari commission (1966).

### **III. Historical Background**

Today, the EIA process has been accepted in many industrialized countries including United States, Canada, Japan, Australia, Netherlands, Columbia, India, Thailand, Philippines and even in some African countries like Rwanda, Botswana and Sudan. In India, the central ministry of environment and forests issued a notification on 27<sup>th</sup> January, 1994 making EIA statutory for 29 specified activities falling under various sectors such as industries, mining, Irrigation, power, Transport, Tourism, etc. This notification was amended on 4<sup>th</sup> May, 1994, and the amended version includes a self-explanatory note detailing the procedure for obtaining environmental clearance, technical information, documental clearance from the ministry of environment and forests, so as on to enable the submission of complete application for environmental appraisal.

### **IV. Environmental Management**

A major part of innovations in scientific and technological development has been directed towards generation or elevation of human comforts, thereby increasing the standard of living in the society. This led to increase in industrialization. Some of the important improvements to our standard of living that can be attributed to the application of science and technology include.

- a) Production of more and better quality food.
- b) Elimination of many infectious diseases.
- c) Invention of new faster communication systems.

- d) Creation of reliable and faster transportation.
- e) Supply of safe water.
- f) Invention of machines to replace human and animals power.
- g) Minimizing water-borne diseases through improved water technology.
- h) Mitigation of bad effects due to natural disasters eg., droughts floods, volcanic eruptions, etc.

#### **V. Objectives of environment Management**

- 1) Regulating the exploitation of natural resources.
- 2) Protecting environment degradation and maintaining environmental quality.
- 3) Balancing the ecosystem.
- 4) Preserving the biological diversity.
- 5) Regulation of exploitation of natural resources.
- 6) Adopting engineered technology without creating adverse effects on environment.
- 7) Formulation of suitable environmental laws and regulations and effective implementation of the same.

#### **VI. Components of Environmental Management**

The major components of effective environmental management are –

- 1) Control of atmospheric pollution and environmental degradation.
- 2) Adopting technologies which ensure sustainable development.
- 3) Conducting environmental impact assessment to review the existing technologies and making it mandatory for clearing major project of environment concern.
- 4) Instilling environmental perception among people by conducting awareness programmes.
- 5) Environmental education and training at schools, colleges and universities. The importance of environmental education was highlighted at the environmental education conference (EEC) held at Belgrade in 1975 (called Belgrade charter) by UNESCO and at Tbilisi, U.S.S.R. in 1977 by the United Nations education Programme (UNEP).
- 6) Controlling over population.
- 7) Controlling over consumption and craze by inculcating sublime human values such as service to society, non-material enrichment and spiritual solace.

#### **VII. Elements of the EIA Process**

The first step in the Environment Impact Assessment (EIA) process is to determine whether the project under consideration falls within the Jurisdiction of the relevant Acts/Regulations, and if so, whether it is likely to create a significant environmental disruption. If so, an EIA is undertaken and the Environmental Impact Statement (EIS) is prepared. In some countries, the EIS is open to public scrutiny and reviewed at public hearings. Eventually, a political decision is taken so as to whether the development project is (a) accepted or (b) accepted with amendments or (c) an alternative proposal is accepted or (d) rejected.

#### **VIII. Participants in EM process**

The following persons/groups/ agencies usually are involved in EIA process.

- (1) Proponent : Government or Private Agency which initiates the project.
- (2) Decision Maker : Designated individual or Group or Body.
- (3) Assessor : Individual or Agency responsible for the preparation of EIS.
- (4) Reviewer: Individual/Agency/Board entrusted with the responsibility for reviewing the EIS and assuring compliance with the relevant guidelines/regulations.
- (5) Other Government Agencies having special interest in the project.
- (6) Expert advisers.
- (7) Media and Public at large.
- (8) Special interest groups: Environmental Organizations, Professional Societies, labour Union, Local Associations.

### **IX. Contents of EIS:**

The EIS should contain the following information data:

- (1) Description of proposed action and alternatives including that of no action: It should include details of the construction phase, operation phase and the shut-down phase wherever applicable. Selection of alternatives to the proposed action e.g., different ways of building and operating the project, alternative sites, etc.
- (2) Estimation of the nature and magnitude of the likely environmental effects of the various alternatives proposed: This is mainly done under the following 3 broad categories:
  - (a) Physical factors (e.g., possibility of earthquakes, possible effects on surface and groundwater quality, soil and air quality, etc.).
  - (b) Biological factors (e.g., effects on vegetation, wild life, sport and commercial fish species, endangered species, etc.).
  - (c) Socio-economic factors (e.g., economic, demographic, social values and attitudes).
- (3) Identification of the relevant human concerns.
- (4) Criteria to be used in measuring the significance of environmental changes including the relative weight ages to be assigned in comparing different types of changes.

### **X. Environmental Audit for Sustainable Development**

Environmental Management is absolutely essential for sustainable development because it minimizes the environmental disturbances and ensures unhampered pace of industrial development and economic growth. Environmental audit is an important tool for environmental management because it enables the environmental Pollution/Control Agencies to ensure the compliance with the environmental protection laws. It also motivates the mining and processing industries to demonstrate their concern and greater overall awareness towards their social obligation for environmental protection and to adapt eco-friendly technologies.

Environment Audit is an important management tool comprising of a systematic, periodic, objective and documented evaluation and assessment as to how well the environmental management systems are organized to facilitate control of environmental practices and how well the company policies are complying with regulatory requirements. Environmental review, environmental surveillance or environmental assurance are the other synonyms used for environmental audit.

### **XI. Environmental auditing comprises of the following steps**

- (i) Compiling of all relevant information on environmental management.
- (ii) Evaluation of the information collected.
- (iii) Formulation of conclusions and identification of areas that warrant improvement.
- (iv) Active follow-up of the points raised and recommendations made to achieve the objectives of environmental management.

Environmental auditing may be practiced in different organizations having different audit objectives. However the following interrelated characteristics are identified for an effective audit programme:

- (i) Scope (ii) Organization (iii) Objectives (iv) Resources (v) Approach and (vi) Coverage.

Environmental audit may have flexible methodology depending on the type of industry and its situation. Environmental audit should be preceded by well-defined pre-audit activities, on-site visits and post-visit activities, followed by preparation of report and suitable follow-up action plan. - Environmental audit is regarded as a voluntary responsibility of an industry or organization. The following benefits will be accrued for an industry/organization that practices environmental audit:

- (1) It helps in assessing whether the existing environmental practices being followed are satisfactory and whether the environmental protection regulations are complied with.
- (2) It provides an opportunity for comprehensive review of environmental policies, management systems, organizations and practices and to assess whether introduction of new innovative practices are necessary to comply with the stringent regulations from time to time.
- (3) It protects against possible penalties, litigations or regulatory risks.
- (4) It contributes its modest share towards sustainable development and gives due credit for environmental management to the Management.
- (5) It provides an up-to-date environmental data base which may be useful in emergencies and also while making decision on plant modifications.

## **XII. SALIENT FEATURES OF SOME IMPORTANT LAWS**

### **The Wild Life Protection Act, 1972 (Amended in 1983,1986 and 1991)**

This Act was enacted for providing protection to wild animals and birds. The Act also provides for the constitution of a Wild Life Advisory Ward, appointment of Chief Wild Life Warden, Wild Life Wardens and other employees by the State Governments for the protection of Wild Life. Regulation of hunting of wild animals and birds, laying down the procedures for declaring areas as sanctuaries, national parks and biosphere reserves, and regulation of trade in wild animals were also provided by the Act, List of endangered species, which is revised from time to time, is also included in the schedule of the Act.'

As per the provisions of this Act, no one is permitted to hunt any wild animal, except Vermin, without a license from the chief Wild Life Warden. A record of Wild Life animals hunted or captured has to be maintained. A special permit may be granted to hunt a wild life animal for education, scientific research, scientific management and collection of specimens for Zoological gardens, museums, etc. The Act provides for the establishment of sanctuaries national parks, game reserves, and closed areas. All wild life animals are the property of the Government. Trade or Commerce in wild animals and animal articles and trophies is strictly regulated. No person can cook or serve meat of wild animals in any eating house without a licence. Penalties for violating the provisions of the Act have also been laid down in the Act.

**The Forest Conservation Act, 1980 (Amended in 1988)** - As per this Act, no forest land or any portion thereof may be used for any non-forest purposes without the prior permission of the central Government. The Act has been amended in 1988 for incorporating more stringent penal provisions against violators of the Act. The scope of the definition of "non-forest purposes" was extended to include cultivation of tea, coffee, rubber, palms, oil-bearings plants, horticultural crops and medicinal plants. No State Government or other authority may issue order directing that any forest land or any portion thereof may be assigned by way of lease or otherwise to any private person or to any authority, corporation, agency or any other organization not owned, managed or controlled by Government without prior approval of Central Government.

### **XIII. The Water (Prevention and Control of Pollution) Act, 1974 (Amended in 1988)**

This Act provides for the prevention and control of water pollution and for maintaining or resorting of wholesomeness of water. The Act stipulates establishment of the Central and State Boards for this purpose, and also stipulates how these Boards are to be constituted.

The Act defines terms like pollution, sewage effluent, trade effluent stream and boards. The Act also assigns the functions to be carried out by the Central and State Boards.

The Water Boards have power to obtain information, to take samples of effluents from any industry/establishment and to make survey of any area and gauge and keep record of the flow or volume and other characteristics of any stream or well.

A person empowered by the Board has the right to enter, and inspect any place and examine any plant, record register, document or any other material object, or for conducting a search of any place where he has reason to believe that no offence of water pollution is committed. The Board has wide powers to prohibit the use of any stream or well for discharging any pollutant in it. The Board has powers to restructure the outlets for dumping pollutants.

The Act prohibits disposal of any poisonous, noxious or polluting matter or any matter causing obstruction to the proper flow of water in a stream. However, dumping of any material into a stream for the purpose of reclamation of land is not considered an offence.

The Act provides for severe and deterrent punishments for violation of the Act which includes fine and imprisonment.

### **XIV. The Water (Prevention and Control of Pollution) Cess Act, 1977 (Amended in 1991)**

This Act empowers the Central Water Board to collect cess on water consumed by persons carrying on certain scheduled industries and by local Authorities responsible for supplying water. The cess and the consent fees form the major sources of revenue to run the Central and State Water Boards The Act has been amended in 1991 with a view to augment the resources of the Boards by removing the lacunae in the Act and to provide rebate to the Industries for complying with the consumption and effluent quality standard.

#### **XV. Air (Prevention and Control of Pollution) Act, 1981 (Amended in 1987)**

This Act was passed under Article 253 of the Constitution of India and in pursuance of decisions of Stockholm Conference. The objective of this Act is to provide for the prevention, control and abatement of air pollution in order to preserve the quality of air.

The Act defines relevant terms such as air pollution, air pollutant, auto mobile, industrial plant, etc. Air pollution is defined as the "presence of any liquid or gaseous substances in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

**All sources of pollution such as automobiles, diesel vehicles, industries, transport, railways and domestic fuels.**

The Central and State Water Boards have been entrusted with the task of controlling and preventing air pollution and accordingly they have been redesignated as Central Pollution Control Board and State Pollution Centre Board respectively. The functions of these Boards were clearly defined. The Act provides the declaration of certain heavily polluted areas as a "Air Pollution Control Area" and no industrial plant shall be operated in these areas without prior consent of the State Pollution Control Board.

The State Boards have to pay down and enforce standards for prevention and control of air pollution. The State Government in consultation with the respective Board may give instructions to the concerned Authority in charge of Registrations under the Motor Vehicles Act 1939, to ensure emission standards from automobiles. Failure to comply with the conditions prescribe for this purpose is punishable with fine and imprisonment.

The State Boards have powers to see a polluter in a court of law to prevent him from polluting the air, and the expenses incurred by the Board for doing so will be recovered from the polluter. Further, the Boards have powers to authorize any person to enter and inspect the premises of the polluter and to collect 5 samples of emissions from Chimneys, flues, dusts or another outlets for analysis of the pollutants.

The Act has been amended' comprehensively in 1987 to render it more effective and to include "noise" also under the definition of air pollutants.

#### **XVI. The Environment (Protection) Act, 1986**

The Environment (Protection) Act, 1986 was enacted as per the spirit of the Stockholm Conference held in June, 1972 to take appropriate steps for the protection and improvement to prevent hazards to human beings, living creatures and property.

The Act also empowers the Central Government to make rules for the first time or the (i) Standard of quality of air, water and soil for various areas and for various purposes (ii) Maximum permissible limits of concentration for various environmental pollutants (including noise) for different areas (iii) procedures and safeguards for handling of hazardous substances (iv) prohibition and restrictions on the location of industries and carrying out processes and operations in different areas (v) Procedures and safeguards for prevention of accidents which may cause environmental pollution and (vi) providing for remedial measures in case of accidents:

#### **XVII. Conclusion**

In the Concluding line we can say that Today, the whole world, particularly the developing countries face a near crisis situation, both Economics and Environmental. The words economics and Ecology have the same root, oikos (Meaning house). Whole Economics deals with financial housekeeping, Ecology deals with Environmental housekeeping. The has now come when sustainability in development has to enter in our planning process.

The central theme of Environmental management is a the reduction or minimization of the impact of human activities on the Environment, thus an Endeavour to avoid the overuse misuse and abuse of Environmental resources. The cornerstones in any Environmental strategy are (i) Environmental planning (ii) Environmental Status E. Valuation (iii) Environmental impact assessment and (iv) Environmental legislation and administration. We must make attempt to identify the priority areas and the strategies, in Indian context, to solve the current problems that should lead to sustainable development. Contrary to western concept of conflict with nature our basic philosophy has been of harmony with nature. However, during last 150 years or so we have been following the former one.

### **Reference**

- [1]. Kumar Arvind, (2004) A Text book of Environmental Science. Published by – APH Publishing corporation, New Delhi- 110002, Page No. – 175 to 215.
- [2]. Sharma P.D. (2006) Ecology and Environment Published by – Rastogi Publications, ShivajiRaod, Meerut – 250002, Page No.- 528-530
- [3]. Dr. Sharma, R.A. (2013) Environmental Education. Published by – Vinayrakheja C/o R. Lall Book Depot Near Govt. Inter College, Begum Bridge, Meerut – 250001.