3. Under the Act, comprehensive listing of endangered wildlife species was done for the first time and prohibition of hunting of the endangered species was mentioned
4. Protection to some endangered plants like Beddome cycad, Blue Vanda, Ladies Sliper Orchid, Pitcher plant etc. is also provided under the Act.
5. The act provides for setting up of National Parks, Wild life Sanctuaries etc.
6. The Act provides for the constitution of Central Zoo Authority.
7. There is provision for trade and commerce in some wildlife species with license for sale, possession, transfer etc.
8. The Act imposes a ban on the trade or commerce in scheduled animals.
9. It provides for legal powers to officers and punishment of offenders.
10. It provides for captive breeding programme for endangered species. Several conservation projects for individual endangered species like lion (1972), tiger (1973), crocodile (1974), and brown antlered deer (1981) were started under this Act.

5.1.5 FOREST CONSERVATION ACT

The Indian Forest Act of 1927 consolidated all the previous laws regarding forests that were passed before the 1920s. The Act gave the Government and Forest Department the power to create Reserved Forests, and the right to use Reserved Forests for Government use alone.
It also created Protected Forests, in which the use of resources by local people was controlled. Some forests were to be controlled by the village community, and these were called village Forests. The Act remained in force till the 1980s when it was realized that protecting forests for timber production alone was not acceptable. The other values of protecting the services that forests provide and its valuable assets such as biodiversity began to overshadow the importance of their revenue earnings from timber.
This led to the Forest Conservation Act of 1980 and its amendment 1988. India's first Forest Policy was enunciated in 1952. Between 1952 and 1988, the extent of deforestation was so great that it became essential to formulate a new policy on forests and their utilization. The earlier forest policies had focused only on revenue generation. In the 1980's it became clear that forests must be protected for their other functions such as the maintenance of soil and water regimes centered around ecological concerns. It also provided for the use of goods and services of the forest for its local inhabitants.
The new policy framework made conversion of forests into other uses much less possible. Conservation of the forests as a natural heritage finds a place in the new policy, which includes the preservation of its biological diversity and genetic resources. It also values meeting the needs of local people for food, fuel wood, fodder and Non Timber Forest Produce or NTFPs. It gives priority to maintaining environmental stability and ecological balances. It expressly states that the network of Protected Areas should be strengthened and extended.

The Forest Conservation Act of 1980 was enacted to control deforestation, It ensured that forestlands could not be de-reserved without prior approval of the Central Government, This was created as some states had begun to dereserve the Reserved Forests for non-forest use. These states had regularized encroachments and resettled 'project Affected people' from development projects such as dams in these de-reserved areas. The need for a new legislation became urgent. The Act made it possible to retain a greater control over the frightening level of deforestation in the country and specified penalties for offenders.

Penalties for offences in Reserved Forests:

• No person is allowed to make clearing or ser fire to a reserved forest. Cattle are not permitted to trespass into the reserved forest, cutting, collecting of timber, bark or leaves, quarrying or collecting any forest products is punishable with imprisonment for a term of six months or with a fine which may extended to Rs 500 or both.

Penalties for offences in protected Forests:

• A person who commits any of the following offences like cutting of trees, stripping the bark or leaves of trees, set fire to such forests or permits cattle to damage any tree, shall be punishable with imprisonment for a term which may extended to six months or with a fine which any extended to Rs 500 or both.

• Any forest officer even without an order from the magistrate or a warrant can arrest any person against whom a reasonable suspicion exists.

5.1.6 ISSUES INVOLVED IN THE ENFORCEMENT OF ENVIRONMENTAL LEGISLATION-PUBLIC AWARENESS

It is necessary to create awareness about the norms and projected environmental restrictions under which organization may have environmental regulations and legislations rests with a number of different agencies. Central government is responsible for enforcement of various environmental legislation for less polluting small scale industries. There is an urgent need to use a range of measures to complement regulations.

It should be a must for all potential polluters to apply permission to operate, discharge or emit any pollutants. In addition there should be a greater monitoring. The technique of environmental assessment is applied to ensure that the significance of potential environmental impacts of proposed projects are critically examined during the planning process. Another way of increasing awareness on environmental protection is the introduction of voluntary scheme under which companies which would meet certain standard of environmental property of their products.

The various expectations in different types of pollution are as follows:

1. Water Pollution:

Under the water resource act of the country it should be criminal offence to cause or knowingly permit the entry in to controlled water of any poisonous, noxious or polluting matter or any other solid matter, trade or sewage effluent without the consent. Accidental spillage or discharge of such materials should be treated as an offence.

2. Air Pollution:

The legal responsibility about air pollution may be found in terms of the environmental protection act, covering two complementary systems of air pollution (1) the most potentially polluting activities. The major sources of air pollution are (a) Emission from industrial sources (b) Emission from motors vehicles, (c) Emission from other sources.

Thus, to prevent air pollution, rules and regulations are required to be framed.

3. Wastes Disposal:

They may be regulatory bodies for waste disposal, waste collection. These should also be directives relating to waste on the disposal of waste oil, the disposal of polychlorinated biphenyl, and polychlorinated phenyls.

After the united Nation's Conference on Human Environment in 1972 the Environmental legislation got a fresh impieties Indian first systematic approach in dealing with the environmental issues started from water Act of 1974. This Act was amended in 1988 and a new section 33 A was introduced which empowers state boards to issue directives to any person to close any industry and to stop or regulate supply of water and electricity. Because of the continuing environmental degradation and the Bhopal gas tragedy in 1974 the central government enacted fresh legislation for adopting more strict environmental policies.

Environmental Protection Act 1986 is one of the most significant legislation to protect the environment. Under Article 48A, the addition was made to the directive principles of state policy as the state shall endeavors to protect and improve the environment and safeguard the forests and wildlife of the country. Article 51A (g| imposes high responsibility on every citizen to protect the environment and improve natural resources, including forests, lakes, rivers and wildlife.

Every citizen has a choice of few records to mitigate pollution. These are (1) a common law and action (2) a writ petition for completing the agency to enforce the law and (3) a citizen suit.

An upcoming industry must submit No Objection Certificate in respect of pollution before it starts the implementation process. In case of a large project, it should submit Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) to the Govt. of India for final clearance of the project.

Recently Supreme Court of India emphasized on the need to strengthen some institutional machinery to enforce antipollution law across the state. Supreme Court has further suggested that Government should set up special courts exclusively to deal with cases relating to violation of environmental laws. Supreme Court has also suggested that chemical industries should be treated separately. In 1996, Supreme Court has ordered Union Government and local authorities to keep clean the historical places on a regular basis.

AWARENES:

It is evident that the growing number of poor people, in developing countries due to the rapid population growth complex with economic constraints contributes to the degradation of environment and the renewable to the degradation of environment and the renewable sources like water, forests, and extinction of various species on which the man depends.

For these, greater awareness is needed. Due care is necessary to harness the natural resources, so that the quality of the environment does not deteriorate. It is unfortunate to note that degradation of environment continues inspire of environmental legislations and standardization. One of the reasons for this is improper implementation of the various environmental laws and standards. The most important reason may lack of awareness and understanding the implicate environmental degradation.

5.2 ENVIRONMENTAL IMPACT ASSESSMENT

Definition of Impact: An impact can be defined as any change in physical, chemical, biological, cultural or socio-economic environmental system as a result of activities relating to a project or adverse effects caused by industrial, infrastructural projects or by the release of a substance into the environment.

Definition of Impact Assessment: Impact assessment is the process of identifying the future consequences (bad results) of a proposed project. Impact Assessment ensures that projects, programs and policies are economically viable, socially equitable and environmentally sustainable.

Definition of Environmental Impact Assessment: The United Nations of Environmental Programme (UNEP) defined that EIA is a tool used to identify the environmental and economic impacts of a project prior to decision making regarding the project planning, design, adverse impacts, etc.. For all proposed and development projects, whether Government or Private, the Ministry of Environment and Forests (MoEF) requires an Environmental impact assessment report related to the following parameters:
The report must define what impact it would have on water; soil and air including flora and fauna. Affect on the lives of local people.
To ensure that no way harm the environment on a short term or long term basis.

Why is EIA important?
By identifying potential alternatives and adverse impacts, Nations can better achieve goals for sustainable development; avoid adverse environmental; social and cultural impacts; reduces cost, provides better plan for infrastructure etc...

CLASSIFICATION OF IMPACTS:
Environment impacts arising from any development projects fall into three categories:

(i) Direct impacts
(ii) Indirect impacts and
(iii) Cumulative impacts.

According to their nature, these three groups reveal:

- Positive and negative impacts
- Reversible and irreversible impacts
- Light, moderate and severe impacts
- Local and widespread impacts
- Short – term and long – term impacts

For eg to construct a major project:
Direct impacts are related to:
(a) Aesthetics in the area (understanding of beautiful things);
(b) Traffic at nearby junctions,
(c) Removal of natural vegetation;
(d) Interference with natural water ways;
(e) Additional housing or commercial shops to support employees.

SIGNIFICANCE OF EFFECTS:

Significant effects are likely to occur where valuable resources are subject to impacts of severity. EIA is recognized by adopting the five levels of significance as described in the draft to good practice and procedures. These five levels of significances are::

Severe: Sites of national importance and unique resources (to exist in only one place) if lost, cannot be replaced or relocated.

Major: These effects are to be important considerations at a regional or district scale during the decision making process..

Moderate: These effects at a local scale are likely to be key decision making issues.

Minor: These effects may be raised as local issues but are unimportant in the decision making process.

Neutral: No effect, not significant.

5.2.1 BASELINE DATA ACQUISITION

Baseline information is important reference point for conducting EIA. The term "baseline" refers to the collection of background information on the biophysical, social and economic settings proposed project area. An Environmental Baseline Study (EBS) is an investigation conducted to establish the level of contaminants in the project areas and to assess the extent of contamination. The information needed to conduct an EBS can be acquired from the available sources:

Baseline data are collected for two main purposes:

- To provide a description of the status and trends of environmental factors (e.g., air pollutant concentrations) against which predicted changes can be compared and evaluated in terms of importance, and
- To provide a means of detecting actual change by monitoring once a project has been initiated

Land features include topography; climatology (temperature, rainfall)

Geology & Hydrogeology (Lithology of rock formations, drainage pattern, ground water table)

Air environment (study of SPM, SOx; NOx)

Noise environment

Water Environment (P^H; TDS; F; dissolved Oxygen; BOD etc..)

Soil quality Soil analysis reflect the presence of nutrients like N, P, K, Ca, Mg, Fe, Mn and Al

Flora and Fauna of the proposed area

Socio economic study include Population density; Literacy rate; Category of workers viz., cultivators, agriculture laborers, etc); Medical facilities; Main sources of availability of water viz., rivers, canals, hand pumps, taps etc..

5.2.2 ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

Following are the steps involved in a systematic EIA of a highway project:

1. Project definition: The importance and need of the project is defined here and its relation with regional and national developmental activity is mentioned in this section.

2. Screening: Screening is done as per the statutory notification. Screening criteria are based upon:

- Ø Scales of investment;
- Ø Type of development; and
- Ø Location of development

3. Scoping: Scoping is a process of detailing the terms of reference of EIA. It is done by the consultant in consultation with the project proponent and guidance, if needed, from Impact Assessment Agency. Quantifiable impacts will be assessed based on magnitude, prevalence, frequency and duration and non-quantifiable impacts (such as aesthetic or recreational value). Significance is commonly determined through the socioeconomic criteria. After that the areas, where the project could have significant impact are identified and the baseline status of these will be monitored and then the likely changes in these on account of the construction and operation of the proposed project will be predicted.

4. Baseline information: Baseline data describes the existing environmental status of the identified study area. The site-specific primary data is monitored for the identified parameters and supplemented by secondary data if available.

5. Impact prediction: Impact prediction is a way of mapping the environmental consequences of the significant aspects of the project and its alternative. Environmental impact can never be predicted with absolute certainty and this is all the more reason to consider all possible factors and take all possible precautions for reducing the degree of uncertainty.

6. Evaluation of impacts and alternative criteria: For the project possible alternatives are identified and environmental attributes are compared. These alternatives cover both project location and process technologies. Alternatives consider .no project. also. Alternatives are then ranked for selection of the best environmental option for optimum economic benefits to the community at large.

7. Management plan: This section of the EIA will describe about the mitigation measures to reduce the harmful effects of the proposed project. Particularly, it will also contain the provision for rehabilitation of the people affected and displaced by the project.

8. Public participation: Law requires that the public must be informed and consulted on a proposed development after the completion of EIA report. Public participation can be assured by:

i. Consulting the public directly affected by the proposed project and the voluntary groups like NGOs or pressure groups having a concern with a specific aspect of the environment.
ii. Conducting direct interviews with the sample from public or by sending questionnaire to the people from public.
iii. Publishing the summary of EIA report for objections and suggestions from people.

9. Decision making: Decision making process involves the consultation between the project proponent (assisted by a consultant) and the assessment authority (assisted by an expert group if necessary). The final decision on acceptance, rejection or clearance is arrived at through a number of steps including evaluation of EIA and environmental management plan.

10. Monitoring Plan: Monitoring should be done both during construction and operation phases of a project. Monitoring will enable the regulatory agency to review the validity of predictions and the conditions of implementation of the Environmental Management Plan.