
Environmental Laws
and Regulations

Environmental Engineering

Historical Background

- Environmental regulations have existed for centuries.
- In about 1300 A.D., King Edward II of England reportedly ordered any person burning coal to be hanged because of poor quality of air



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Historical Background

- The first significant laws were federal statutes passed in the United States in the 1970's dealing with air and surface water quality and hazardous waste.



Why are Environmental Laws Passed?

- After environmental problems were understood and made public, citizens had to be convinced of the seriousness of the risks, so laws could be passed <u>to protect human health and environment</u>.



Who governs environmental laws and policies?

- **Environmental Protection Agency (EPA)** is the primary agency responsible for protecting the environment, although several other agencies are also involved in particular areas.



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Environmental Laws

- There are more than 200 sectoral laws in force dealing with environment
- They focus mainly on land use, air and water pollution, noise, toxic chemicals, solid waste, forest conservation, wildlife protection, mineral resources, coastal zone management, industrial pollution, environmental health and sanitation



Environmental Laws

- There are some laws as old as Forest Act of 1927; Motor Vehicle ordinance of 1939; Bengal Smoke Nuisance Act of 1876 etc.
- Environmental laws may be categorized as follows:
- Protection of environmental health
- Control of environmental pollution
- Conservation of natural and cultural resources



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Core laws on Environment

- Environment Conservation Act (ECA) 1995
- Environment Conservation Rules (ERC) 1997



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Objectives of the Environment Policy

Six Key Objectives:

1. To maintain ecological balance and overall development through protection and improvement of the environment
2. To protect the country against natural disasters
3. To identify and regulate activities which pollute and degrade the environment
4. To ensure environmentally sound development in all sectors
5. To ensure sustainable, long-term and environmentally sound use of national resources
6. To actively remain associated with all the international environmental initiatives to the maximum possible extent



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ECA 1995

- The main objectives of ECA 1995 are: conservation and improvement of environment; and control and mitigation of pollution
- The Act established the Dept of Environment (DOE)
- It described power exercised by DG to enforce regulations



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Strategies of the Act

- Declaration of Ecological critical Area (ECA)
- Regulation controlling vehicle emitting smoke
- Environmental Clearance
- Regulation for the industries
- Provision for quality of standards for air, water, noise and soil
- Limit for discharge of wastes
- Environmental Guidelines



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ECA 1995

- Section 5: Declaration of Ecologically Critical Area (ECA)
- Section 6: Vehicles emitting smoke
- Section 10: Powers of Entry
- Section 12: Environmental Clearance
- Section 15: Penalty
- Schedule-1: Categorization of industries or projects based on degree of pollution



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ECR 1997

- The Rules categorized different industrial units and projects based on the degree of pollution and suggested measures for undertaking Environmental impact Assessment (EIA)
- Rules specified Environmental Quality Standards (EQS) for air, water, noise, motor vehicle exhaust, sewer, waste and gaseous discharge



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Check-list for Environmental Clearance

- Site Location
- Project Components
- Raw Materials
- Energy Use
- Effluents and its Management
- Impacts on Health, Habitat, Society, Eco-system and Environment
- Water Logging, Land Erosion



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What is an EIA

- Environmental Impact Assessment (EIA) is a formal study process used to assess and predict the environmental consequences of an existing or proposed project.
- EIA concentrates on environmental problems/conflicts that might have an adverse effect on natural resources and on human being
- EIA identifies measures to minimize the problems and outlines ways to improve the project's sustainability



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What is an EIA

- During conducting EIA, local people, specially the stakeholders are to be consulted
- EIA is considered as an integral part of the feasibility study of the project
- EIA also identifies measures to minimize the problems (e.g., ETP, CETP)
- Initial Environmental Examinations (IEE) is followed by an EIA



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Legal Basis of EIA

- Environment Conservation Act 1995 (section 12) made provision for environmental clearance prior to setting up of industries
- Environment Conservation Rules 1997 (section 7) categorized the industries into four: Green, Orange A, Orange B and Red



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Environmental Clearance

- Green: Site Clearance (TV/radio assembly, book-binding, tea packing, sports goods, laundry without washing)
- Orange-A: General inform., process flow diagram, layout plan (dairy, poultry, saw mill, printing press, restaurant, cinema hall, dry cleaning)



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Environmental Clearance

- Orange-B: Feasibility Report, IEE, Environmental Management Plan (EMP) (glass factory, edible oil, jute mill, coal tar, hotel, multi-storied apartment, brick field, ice cream factory)
- Red: Feasibility Report, IEE, EMP, full-scale EIA, Public Opinion (tannery, urea factory, power plants, chemical dyes, cement, refinery, paper & pulp, distillery, sugar etc)



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Public participation

- Participation by the stakeholders
- Public consultation during pre-project and post-project period
- Compensation for Project Affected Persons (PAPs)
- Resettlement Action Plan (RAP)
- Assistance in livelihood



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Enforcement

- DOE has the responsibility to enforce ECA 1995 and Rules 1997
- Other institutions are the Department of Forests, Department of Fisheries, PWD, Department of Agriculture, BWDB, Housing and Settlement Directorate, City Corporation, Directorate of Health, LG Division, BRTA, Bangladesh Police etc



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Compliance & Enforcement

- DOE issues environmental clearance
- DOE is more enforcing these days despite manpower shortage
- Political commitment is necessary
- Industrialists slowly complying with the regulations by setting up of ETPs
- People's concerns are being addressed



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The Environment Policy Considered the 15 different sectors:

1. Agriculture
2. Industry
3. Health and sanitation
4. Energy and fuel
5. Water development, flood control and irrigation
6. Land
7. Forest, wildlife and biodiversity
8. Fisheries and livestock
9. Food
10. Coastal and marine environment
11. Transport and communication
12. Housing and urbanization
13. Population
14. Education and public awareness
15. Science, technology and research

