

ENVIRONMENTAL MANAGEMENT



What is Environmental Management?

- ❑ Environmental management is concerned with the man environmental interface, the complex boundary where bio-physical and socio cultural systems interact (Hare, 1970).
- ❑ An approach which goes beyond natural resource management, to encompass the political and social as well as the natural environment (Clarke, 1999).
- ❑ It is an attempt to control human impact on and the interaction with the environment in order to preserve natural resources.

Environmental Management Associated Issues



Characteristics of Environmental Management

- ❖ It deals with the world affected by human.
- ❖ It supports sustainable development.
- ❖ It demands a multidisciplinary approach.
- ❖ It has to integrate different developmental points of view.



Characteristics of Environmental Management

- ❖ Applied for both short term and long term concerns.
- ❖ Integration of natural and social sciences.
- ❖ Integration of policy making and planning.



Significance of Environmental Management

- ❑ To prevent and solve environmental problems.
- ❑ To develop research and monitoring.
- ❑ To warn threats and identify opportunities.
- ❑ To suggest measures to resource conservation.
- ❑ For long term/short term sustainable developments.
- ❑ Develop a strategy to solve the environmental issues.



General Scheme for Environmental Management

1. Identification of objectives and define problems

2. Determination of appropriate action plan

3. Implementation and progress evaluation

4. Monitoring and adjust management

5. Future environmental management and planning

Approaches of Environmental Management

There are 3 approaches of environmental management-

1. Spatial approach
2. Ecological approach
3. Environmental Management System (EMS) Approach



Spatial Approach

Spatial Approach considers the management of environment at 3 levels-

1. Local level
2. Regional level
3. Global level

At global level, the spatial dimension and management strategies may be chalked out on the basis of needs, aspirations, perceptions, priorities and inhibitions of the individuals, society and government.



Ecological Approach

Ecological approach considers the management of ecological resources to save the environment. It has two methods to manage ecology.

1. Conservation: To utilize the natural environment for social needs but a simultaneous effort to maintain the ecological balance.
2. Preservation: To save some species or natural environments from social utilization in order to protect them.



Environmental Management System (EMS) Approach

EMS has been defined by ISO 14001 as-

"The part of the overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing achieving and reviewing the environmental policy."



4 Elements of EMS

► It has 4 elements such as-

1. Act
2. Plan
3. Do
4. Check.



What EMS does?

An environmental management system brings together the people, policies, plans, review mechanisms, and procedures used to manage environmental issues at a facility or in an organization.



What EMS does?

- ▶ Facilitates environmental compliance
- ▶ Addresses environmental impacts
- ▶ Broadens environmental responsibilities to all whose work can have a significant impact on the environment



Workflow of EMS



Framework for Environmental Management System

- ▶ ISO 14001 Standard
- ▶ Code of Environmental Management Principles
- ▶ Compliance-Focused EMS
- ▶ Eco-Management and Audit Scheme

ISO 14001

ISO 14001 is a family of standards related to environmental management that exists to help organizations minimize how their operations negatively affect the environment; comply with applicable laws, regulations, and other environmentally oriented requirements; and continually improve in the above.



Components of ISO 140001

- ▶ Environmental Policy
- ▶ Planning
- ▶ Implementation and Operation
- ▶ Checking and Corrective Action
- ▶ Management Review



Components of ISO 140001



Environmental Policy

An environmental policy is a statement about an organization's environmental position and values. The ISO 14001 standard states that an environmental policy is the organization's overall environmental performance intentions and direction formally expressed by top management.



Environmental Policy Features

- ▶ It is Issued with a policy statement signed by facility manager
- ▶ At a minimum, it commits to
 - ▶ Continual improvement
 - ▶ Pollution prevention
 - ▶ Environmental compliance
- ▶ Identifies EMS framework
- ▶ It is publicly available



Environmental Planning

Environmental Planning is a decision-making process that considers the environmental, social, political, economic, and governance factors that can affect development. Its goal is to manage the relationship between natural systems and human systems in the present and the future.



Features of Environmental Planning

- ▶ Identify aspects and impacts from facility activities, products, and services
- ▶ Review legal requirements
- ▶ Set objectives and targets
- ▶ Establish formal EMS program



Scope of Environmental Management

- ▶ The awareness regarding environmental problems and their proper management began in 1970s through various people movement around many countries of the world.
- ▶ The Green peace movement, The Chipko movement etc. are some of them.
- ▶ The advancement in the field of science and technology helped to provide various tools and instrument supported by statistical data to properly solve environmental problems and help in its management.





THANK YOU