



Management and Protection of Environment

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ABSTRACT

Environmental Management is concerned with the understanding of the structure and function of the earth system. It is also concerned with the description and monitoring of environmental changes, predicting future changes, and attempts to maximize human benefit and to minimize Environmental Degradation due to human activities. Environmental managers attempt deliberately to increase the process of development, attempt to ensure that critical environmental limits are not exceeded, work to reduce and mitigate environmental issues and they are concerned with increasing the adaptability of human societies in the face of environmental change, variability, unpredictability, and hazards. Environmental Management is required for development without destruction or overuse of natural resources and to reduce pollution and degradation of nature. Considering the welfare of future generations, proper decisions regarding the use of the environment are necessary. Environmental Resource Management is the management of the interaction and impact of human societies on the environment. Environmental Resources Management aims to ensure that ecosystem services are protected and maintained for future human generations. It tries to identify factors affected by conflicts that arise between meeting needs and protecting resources.

Environmental Protection is the practice of protecting the natural environment by individuals, organizations, and governments. Its objectives are to conserve natural resources and the existing natural environment and to repair damage caused to the environment. Due to the pressure of consumption, population growth, and technology, the biophysical environment is being degraded. This has been recognised and governments have begun placing restraints on activities that cause Environmental Degradation. The need for protecting the environment has become a basic living need. Today, when we look at our surroundings, we see buildings, vehicles, multiplexes, etc. Human needs are limitless and when it comes to urbanisation, they are never satisfied. We as humans compromise nature according to our convenience. But we often forget about the role that the environment plays in our lives. We may not all be environmentalists, but

there are simple measures that we can take to reduce the consumption of resources to avoid depletion.

Key Words: Sustainable Development, Environment, Protection, management

Introduction

Environmental Management is concerned with the understanding of the structure and function of the earth system. It is also concerned with the description and monitoring of environmental changes, predicting future changes, and attempts to maximize human benefit and to minimize Environmental Degradation due to human activities. Environmental Management also pertains to the process of decision making about the use of natural resources. It is more concerned with the management of human activities and their impact on the environment than with the management of the natural environment itself.

Environmental managers attempt deliberately to increase the process of development, attempt to ensure that critical environmental limits are not exceeded, work to reduce and mitigate environmental issues and they are concerned with increasing the adaptability of human societies in the face of environmental change, variability, unpredictability, and hazards. From this point of view, Environmental Management may be defined as the system that anticipates and avoids or solves environmental and resource conservation issues. From another point of view, Environmental Management may be defined as a process concerned with human-environment interactions that seek to identify

- What are environmentally desirable outcomes?
- What are the physical, economic, social, cultural, political, and technological constraints to achieving those outcomes?
- What are the most feasible options for achieving those outcomes?

From another point of view, Environmental Management is concerned with meeting and improving provision for human needs and demands on a sustainable basis with minimal damage to natural habitats and ecosystems. Thus the concept of Environmental Management is closely related to another important concept that of sustainable development.

The components of Environmental Management are based on five fundamental aspects. They are:

1. Environmental perception and public awareness include (a) sources of environmental perception and public awareness (b) level of environmental perception (c) the role of environmental perception in environmental planning and management.
2. Environment Education and training to be given at school, college, and university levels by professionals.
3. Resource management includes (a) classification of natural resources (b) survey and evaluation of ecological resources (c) preservation of resources (d) conservation of resources.
4. Control of Environmental Degradation and pollution includes (a) adopting suitable preventive mechanisms to reduce natural hazards and disasters (b) regeneration of the degraded environment.
5. Environmental impact assessment includes (a) appraisal of existing environmental conditions (b) appraisal of existing and proposed production methods (c) probable impacts of existing and proposed project (d) review of technology and required improvement.

6. Educating the general public about the urgent need for conservation and preservation of the environment.

Need for Management of Environment

Environmental Management is required for development without destruction or overuse of natural resources and to reduce pollution and degradation of nature. Considering the welfare of future generations, proper decisions regarding the use of the environment are necessary.

Environmental Management is essential for the following reasons.

1. **For use of resources:** You are aware that resources are limited. If these resources are not properly used, they will get exhausted very soon. For appropriate and reasonable use of resources management of the environment is necessary.
2. **To overcome the environment and ecology crisis:** Proper management of the environment is necessary because the present development has reached a point where the environment and ecology are in crucial crisis. If the same continues, it will have a disastrous effect on the environment. The whole earth will be destroyed.
3. **For sustainable development:** Environmental Management is required for development without destruction or overuse of natural resources and to reduce pollution and degradation of nature.
4. **For economic need and values:** Environmental Management is required to give new directions to our economic needs and values and to maintain at the same time a clean environment.
5. **To reduce disasters:** Proper Environmental Management reduces the risk of disasters like floods, forest fires, earthquakes, desertification, transport accidents, global warming, etc. Appropriate measures are to be taken to avoid man-made disasters.
6. **To decide the limiting line between development and environment:** Environmental Management is essential to draw a line of limit between development and environment. For example, if we find that some of our developmental activities are responsible for global warming or depletion of the ozone layer, then we must have control over such activities. Further we may adopt the policy of afforestation.

Objectives and Characteristics of Environmental Management

Environmental Management is the process of allocating natural and man-made resources to make optimum use of the environment in satisfying not only the present basic human needs but of the future generations also. This management implies an element of conscious choice from a variety of alternative proposals and such a choice involves a purposeful commitment to recognised and desired objectives.

Environmental Management involves environmental planning, conservation of resources, environmental status evaluation, and environmental legislation and administration. It is a field of study dedicated to understanding human-environment interactions and the application of science and common – sense to solving environmental problems.

The main objectives of Environmental Management are

1. To prevent and solve environmental problems.
2. To establish limits in respect of the use of natural resources.
3. To develop Environmental Research Institutions and Monitoring Systems.
4. To warn about environmental threats.
5. To suggest measures for resource conservation.

6. To develop strategies for the improvement of quality of life.
7. To suggest long – term and short – term policies for sustainable development.
8. To identify new technologies for sustainable development.
9. To provide every person with opportunities to acquire the knowledge, values, attitudes, and skills needed to protect and improve the environment.
10. To create new patterns of behaviour of individuals, groups, and society towards the environment.

Characteristics of Environmental Management

During the last three decades, much awareness has been developed regarding environmental protection and quality of life. New terminologies like clean technology, environmental auditing, environment-friendly products, environmental impact assessment, and environmental resource conservation have come into existence. All these aspects have been converged when the wider concept of Environmental Management has been emerged and also accepted as a tool for sustainable development.

Time has now come when our policymakers, as well as a society, should aim to protect, conserve and regulate the development in such a way that it will not create any adverse effect on the ecosystem and the needs of the people can also be fulfilled. Throughout the world, particularly in developing countries, there is an urgent need for the management of the total environment.

The Characteristic features of Environmental Management are:

1. It deals with a world affected by humans.
2. It supports sustainable development.
3. It demands a multidisciplinary approach.
4. It has to integrate different development viewpoints.
5. It concerns with short – term and long – term planning as well as from local to the global scale.
6. It seeks to integrate natural and social science, policy-making, and planning.

Environmental Resources Management

Environmental Resource Management is the management of the interaction and impact of human societies on the environment. Environmental Resources Management aims to ensure that ecosystem services are protected and maintained for future human generations. It tries to identify factors affected by conflicts that arise between meeting needs and protecting resources. It is thus linked to environmental protection, sustainability, and integrated landscape management.

Environmental Resource Management can be viewed from a variety of perspectives. It involves the management of all components of the biophysical environment, both living (biotic) and non-living (abiotic), and the relationships among all living species and their habitats. The environment also involves the relationships of the human environment such as the social, cultural, and economic environment with the biophysical environment. The essential aspects of Environmental Resource Management are ethical, economic, social, and technological. Environmental Resource Management covers many areas in science including geography, biology, social sciences, political sciences, ecology, physics, chemistry, sociology, psychology, and physiology.

Environmental Resource Management strategies are driven by the conceptions of human-nature relationships. Ethical aspects involve the cultural and social issues relating to the environment. Broadly speaking two schools of thought exist in environmental ethics. They are Anthropocentrism and Eco-centrism. Both these influence Environmental Resource Management styles. Anthropocentrism looks at nature as existing solely for the benefit of humans and as a commodity to use for the good of humanity and to improve human quality of life. Anthropocentric Environmental Resource Management is therefore not the conservation of the environment solely for the environment's sake but rather the conservation of the environment for human's sake. This view advocates that natural resources must be judiciously used without harming them. Eco-centrism believes in the intrinsic value of nature. It maintains that human beings can use the ecosystem to live and allow the eco-system to flourish on their own. Thus the eco-system has an intrinsic value of its own. The economy functions within and is dependent upon goods and services provided by natural ecosystems. With the prevalence of environmental problems, many economists accept the notion that "if environmental sustainability must co-exist for economic sustainability, then the overall system must permit the identification of an equilibrium between the environment and the economy".

A common scientific concept and impetus behind Environmental Resource Management are carrying capacity. Carrying capacity refers to the maximum number of organisms a particular resource can sustain. It is also argued that western scientific knowledge is often insufficient to deal with the complexity of the interplay of variables in Environmental Resource Management. Now there is a shift in Environmental Resource Management approaches to incorporate different knowledge systems including traditional knowledge reflected in approaches such as community-based natural resource management.

The stakeholders of Environmental Resources Management include the public sector, private sector, and civil society. In Environmental Resource Management the public sector is responsible for administering natural resource management and implementing Environmental Protection Legislation. It also provides professional judgment through skilled technicians on behalf of the public. The private sector's traditional role in Environmental Resource Management is that of the recovery of natural resources. Environmental Managers from the private sector also need skills to manage collaboration within a dynamic social and political environment. Civil society includes community-based organizations and non-government organizations. Civil society members can exercise their legal rights against the implementation of resource management plans. Public participation can be an effective strategy to invoke a sense of social responsibility towards natural resources.

Protection of Environment

Environmental Protection is the practice of protecting the natural environment by individuals, organizations, and governments. Its objectives are to conserve natural resources and the existing natural environment and to repair damage caused to the environment.

Due to the pressure of consumption, population growth, and technology, the biophysical environment is being degraded. This has been recognised and governments have begun placing restraints on activities that cause Environmental Degradation. Since the 1960s environmental movements have created more awareness of the various environmental problems.

Environmental Protection can be defined as the prevention of unwanted changes to ecosystems and their constituent parts. This includes (a) the protection of ecosystems and their constituent parts from changes associated with human activities and (b) the prevention of unwanted natural changes to ecosystems and their constituent parts.

An important issue is whether Environmental Protection relates to the preservation, conservation, or both. Preservation refers to the protection of an ecosystem or natural environment from change while

conservation is generally associated with the sustainable use of natural resources. The objective of conservation is to ensure the maintenance of a stock of renewable resources that are being exploited for human purposes rather than the protection of the natural environment from any anthropogenic modifications. Measures that are put in place to prevent over-exploitation of natural resources do constitute Environmental Protection.

The need for protecting the environment has become a basic living need. Today, when we look at our surroundings, we see buildings, vehicles, multiplexes, etc. Human needs are limitless and when it comes to urbanisation, they are never satisfied. We as humans compromise nature according to our convenience. But we often forget about the role that the environment plays in our lives. The green environment that we live in consists of air, water, soil, trees, sunlight, etc. Everything that the environment consists of is important to us. There are many reasons which affect the environment. For example, deforestation, pollution, and overpopulation have affected our environment to a greater extent.

We may not all be environmentalists, but there are simple measures that we can take to reduce the consumption of resources to avoid depletion. The following measures can be adopted to protect the environment.

1. **Plant trees:** Trees may take a long time to grow. But they serve future generations. Plants not only provide shade but also absorb carbon-di-oxide reducing pollution.
2. **Conserve water:** Water conservation is vital since we cannot survive without water. Avoid using a shower for a bath. Turn off the tap while brushing your teeth. Leakage of water is to be avoided.
3. **Limit car use:** The use of the car is to be limited because they emit a lot of carbon-di-oxide. An alternate way is using public transport. Carpooling is also useful to reduce gas emissions.
4. **Minimize food wastage:** Wasting food results in wastage of energy and water used to prepare the food. Research shows that annually food that gets lost globally is sufficient to feed almost a billion hungry people across the world.
5. **Switch off:** Turn off lights, computer, television, etc. when they are not in use. This helps in saving a lot of electrical energy. Also, consider using LED bulbs to save electricity.
6. **Using second - hand products:** New products need resources for their manufacturing and production. Most of these productions use natural resources. Thus you can protect the environment by choosing second-hand products.
7. **Reuse and recycle:** Use an eco-friendly water bottle instead of bottled water or take your reusable bag to the grocery store. Reusing and recycling can reduce pollution.
8. **Go paperless:** Select paperless as the mode of communication. This is to be implemented in all government offices.
9. **Buy local products:** If possible buy local products. This saves all the pollution incurred by transporting goods from long distance.
10. **Work from home:** If your employer permits you to work from home, it helps in the reduction of pollution and also saves money.

Conclusion

Environmental Management is required for development without destruction or overuse of natural resources and to reduce pollution and degradation of nature. It is also essential for the appropriate use of resources, to overcome the environmental crisis, for sustainable development, to reduce disasters,

and to decide the limiting line between development and environment. Environmental Management involves environmental planning, conservation of resources, environmental status evaluation, and environmental legislation and administration. It is a field of study dedicated to understanding human-environment interactions and the application of science in solving environmental problems. It is an approach that integrates ecology, policymaking, planning, and social development.

Measures that are put in place to prevent over-exploitation of natural resources do constitute Environmental Protection. We can take simple measures to reduce the consumption of resources to avoid depletion. They include planting trees, conserving water, minimizing food wastage, switching off electrical appliances when they are not in use, reusing and recycling wherever possible.

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