

Q.1. What Is Environmental Economics?

Environmental economics is the study of the cost-effective allocation, use, and protection of the world's natural resources.

Economics, broadly speaking, is the study of how humans produce and consume goods and services. Environmental economics focuses on how they use and manage finite resources in a manner that serves the population while meeting concerns about environmental impact.

Q.2. What Is the Difference between Environmental Economics and Ecological Economics?

Environmental and ecological economics are both sub-fields of economic thought that study the interactions between human activity and the natural environment. The difference is that environmental economics studies the relationship between the environment and the economy, while ecological economics considers the economy to be a subsystem of the wider ecosystem.

Q.3. What Is the Relationship Between Neoclassical Economics and Environmental Economics?

[Neoclassical economics](#) is a broad theory that focuses on supply and demand as the driving forces of economic activity. Environmental economics is based on the neoclassical model but places a greater emphasis on negative externalities, such as pollution and ecosystem loss.

Q.4 Discuss the scope of Environmental Economics.

Environmental economics is considered both a positive and a normative science. Therefore, it has wide scope. The scope of environmental economics can be analyzed as follows-----

1. Economy-environment analysis:

Environmental economics is primarily concerned with the impact of economic activities on environment and its implications for the individual firm, industry and the economy as a whole. Economists have formulated economy-environment models to explain the various economic activities and their external effects. For example, the Material Balance Model and the Leontief Abatement Model explain these externalities.

2. Economic development:

The main objective of environmental economics is to maintain a balance between economic development and environmental quality. In order to achieve it, environmental economists have to explore the various socio-economic possibilities to reduce pollution and uplift the standard of living of the people. This objective gained momentum after the publication of the Report on Limits to Growth.

3. Welfare approach:

Environmental economics has emerged as a discipline to tackle environmental problems from an economic welfare framework. The welfare framework covers scarce resources and market failures due to property rights and ethical aspects of different problems of pollution. Thus it suggests the best possible means to tackle the environmental problems.

4. Dynamic and stock-flow analysis:

The mainstream economics is largely confined to the static problems of market behaviour. But environmental management issues are about resources and are dynamic in nature. Moreover, resources have a stock and they have a rate of depletion and replenishment such as oil, minerals, and forests. Thus there is the inevitable stock-flow dimension to environmental issues.

5. Environmental values:

Environmental issues are about resources. The neo-classical economists have analysed the use of various resources like fisheries, forests, fossil fuels and water in a rational manner and with environmental values. In fact, environmental values are economic values. It is important for the society to conserve its limited resources in the interest of economic efficiency and welfare.

6. Clean Technology:

Presently environmental pollution is caused by misuse of existing technology and failure to develop better one. Environmental economists are in favour of appropriate and clean technologies which provide the most rational use of natural resources and energy and to protect the environment.

7. International Cooperation:

There are many international issues like hazards of trans-boundary shipments, unwanted substances and common property resources which need international cooperation among nations. There are many negative effects of inadequate toxic wastes generated within countries and hazardous goods exported to other countries.

Most countries of the world are insisting on uniform standards and environmental regulations for all nations. Other issues are related to international common property resources, especially the share of river water and forest lands, etc.

8. Conservation Policy:

The longstanding foundation of environmental economics lies in conservation economics which tends to emphasise the impact of economic activities on demand for productive resources and energy resources. It suggests the optimal strategy in the utilization of natural resources in a rational manner.

9. Multi-disciplinary base:

Environmental economics is inherently a multi-disciplinary subject. It consists of an integration of many varied disciplines such as biology, ecology, physical sciences, ethics and main stream economics. Therefore, it has wide scope.

Q . Explain the nature of environmental economics.

Nature of Environmental Economics:

Environmental economics is considered both as positive and normative science. It also covers both micro and macro aspects of different pollution problems.

1. Positive and Normative aspects:

Environmental economics is an application of scientific theories and general application of welfare economics. When we study the cause and effect relationship, it covers the positive aspect. For example, the laws of thermodynamics are equally applicable to economic process.

If the problem is related to policy measures, then it is considered as normative aspect. Therefore, environmental economics is a normative science because it prescribes the goals of environmental policy. As pointed out by B. C. Field, “Environmental degradation is the result of human behaviour that is unethical or immoral. Thus, for example, the reason people pollute is because they lack the moral and ethical strength to refrain from the type of behaviour that cause environmental degradation. If this is true, then the way to get people to stop polluting is somehow to increase the general level of environmental morality in the society.” Field calls it as moral approach to environmental issues.

2. A Study of Micro and Macro Aspects:

Economists such as Pigou, Hotelling and Nordhaus have formulated their models in relation to individual firms and natural resources. Therefore, it covers the micro and macro aspects of the pollution problem. There are many examples of micro and macro aspects of environmental problems in the present times.

We generally observe crowded market places, industrial units, and even residential areas in a city like, Delhi. We do not get enough fresh air at these places. Its solution lies in micro level planning. On the other-hand, when the pollution problem is related to the economy as a whole such as rise in temperature, then it is related to macro aspect of environmental planning.

Environmental economics draws more from microeconomics than from macroeconomics. It focuses primarily on how and why people make decisions that have consequences for the natural environment. It is concerned also with how economic institutions and policies can be changed to bring these environmental impacts more into balance with human desires and the needs of the ecosystem.

3. As Static and Dynamic:

Classical and Neoclassical economists have applied both static and dynamic approaches in relation to environment. They have applied economic welfare approach to environment which is static in nature whereas under dynamic approach, they focus on forests, minerals, fossil fuels and water resources etc.

4. As A social science:

Environmental economics deals with economic and managerial aspects of pollution and natural resources. It interacts between human beings and their physical surroundings. It studies the impact of pollution on human beings and suggests national utilization of resources in a proper way so that there may be an increase in social welfare or minimization of social costs.

Environmental economics is also concerned, with the natural environment, but not exclusively so. For example, man-made and cultural or social environments may also be a part of the nature of environmental economics.

5. Environmental Pollution as an Economic Problem:

Environmental pollution is an economic problem because it requires us to make choices and to resolve conflicts of interests. It is an economic problem because the means by which pollution can be reduced are themselves resources using. Further, it also reduces the value of some resources that society has at its disposal.

It means that pollution is a problem of scarcity in terms of waste disposal capacity. The main problem of choice is how to utilize the scarce resources in relation to society's needs. The market forces will be helpful in determining these scarce resources in most rational manner. The equilibrium will be attained at the equality of demand and supply of environmental quality.

Since resources are scarce they cannot be used to produce all types of goods simultaneously. Therefore, if they were used to produce one thing, they have to be withdrawn from other uses. The problem of choice facing a modern society is whether to maintain environmental quality or to increase industrial production (i.e. automobiles). It creates conflicts of interest between potential gainers and potential losers.

The problem of externalities is an important aspect of environmental quality. The external effects of industrial production may affect the environmental quality. Therefore, the economic problem is the optimal allocation of resources in the context of externalities.

One of the objectives of environmental quality is to restrict those production activities which enhance social costs to society. Environmental quality is largely influenced by human activities in terms of excess exploitation of resources and the production of waste. How much environmental quality is affected by exploitation of resources and production of waste depends on ecological conditions of the economy. More exploitation of it means more pollution.

Environmental pollution as an economic problem is explained in terms of Figure 1.

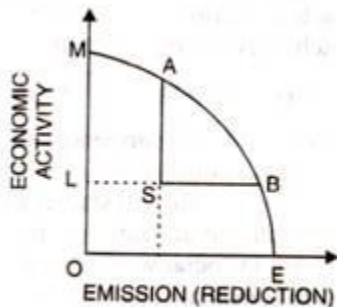


FIG. 1

It is assumed that the economy is producing two sets of goods, a composite good (M) which is the aggregate of all existing goods and

services, and second, an environmental quality good which also represents certain quantity of emission reductions.

The ME curve represents a production frontier which explains the trade-off between economic activity and emission reduction. If the economy moves from point S to point A on the ME curve, it means more production with increase in economic activity without increased emission.

On the other hand, if the economy moves from point S to points B on the ME curve, it means more emission reduction without reducing the economic activity level (L) because point S and point B lie in the same direction.
