Economic Development and Its Impact on Environment

Bhargab Das
M.A. in Economics (Gauhati University)

Abstract: The environment and the economy are interlinked. The environment provides raw materials and energy for economic production and household activities which are extremely necessary for the rapid economic development of a country. That’s why the countries exploit the different natural resources as much as they can which have a very harmful impact on the environment. On the other hand, if the countries don’t extract and use the natural resources then the growth of the economy will be low. So we can see a contradictory relationship between economic development and environment. This article tries to explain the relationship between environment and economic development and the impact of more economic development on the environmental balance.

1. Introduction

Economic development is a very important issue for all the underdeveloped and developing countries. Underdeveloped and developing countries are trying to have rapid economic development through industrial development and agricultural development. But development has both positive and negative effects. As we know that to achieve higher economic development, natural resources have to be exploited on a large scale and environment has to be harmed. Environmental balance can only be obtained, if resources are not exploited and pollution is not formed. This leads to low level of economic growth. So we can see that there is a trade-off between economic development and environmental balance. The impact of economic development on environment is discussed in this paper.

2. Objectives

(a) To discuss the trade-off between environment and development.
(b) To focus on the impact of development on environment.
(c) To study about sustainable development.

3. Methodology

For the present study descriptive analysis method is applied and secondary data has been used like related books, literature, reports, journals etc.

4. Development and Its Impact on Environment

Every country tries to achieve the goals of economic development through industrialization. But industrialization to achieve economic development has resulted in global environmental degradation. Industrial development has leaded to the poisoning of the earth’s water and skies. Environmental pollution as a result of industrial development is discussed below-

(a) Atmospheric pollution

All countries establish large industries as a source of development. But this industrial development has caused the release of harmful substances in to the air which can cause numerous problems for all the living organisms. Excessive air pollution leads to smog, acid rain, green house effects and ozone depletion.

A result of air pollution is acid rain. When pollutant, such as sulfuric acid combines with droplets of water in the air, the water can become acidified. Acid rain refers to the decrease in the ph vales of rain water, caused by the presents of sulfur and nitrogen emission from the large industries, vehicles and burning of fossil fuels like coal, oil etc. Rain fall is acidic when ph vales fall below 5.6. It damages plants by destroying their leaves, it poisons the soil and it changes the chemistry of lakes and streams. Acid rain also leads to material damage in many countries, e.g. the beauty of Taj Mahal was damaged by acid rain.

Ozone depletion is another result of air pollution. As we know that there is a ozone layer at the atmosphere of the earth. It protects the earth from harmful UV rays of the sun. But release of chlorofluorocarbons (CFCs) from aerosol cans, cooling system and refrigerator equipments...
remove some of the ozone, causing ‘holes’ in the layer and allowing the radiations to reach the earth. UV rays are known to cause skin cancer and have damaging effects on plants and wildlife. In, 1985 American scientist Halley Bay detected 10000 to 100000 ozone holes in the most populated areas of the earth.

Another problem of air pollution is smog. Smog is caused by chemical reactions between pollutants derived from different sources, primarily from automobile exhaust and industrial emission. Many cities suffer from the effects of smog.

(b) Marine pollution

Oceans are the largest ecosystems in the Earth. 75% of all sea pollutions are from land based human activities. Some major types of pollutants are oil, sewage, garbage, chemicals, radioactive waste etc.

Domestic households, industrial and agricultural practices produce waste water that can cause pollution of many lakes and rivers. Industry is a huge source of water pollution. It produces pollutants that are extremely harmful to people and to the environment. Many industries in underdeveloped countries use fresh water to carry away waste from the industrial plants to rivers, lakes and oceans.

Again oceans are polluted by oil on a daily basis from oil spills, routine shipping and dumping. Thus different economic activities of the people have a very harmful impact on the sea world.

(c) Soil pollution

The different economic activities of the people for the rapid economic development also lead to soil pollution.

Industrial activities have been the biggest contributors to the problem in the last century. As we know that most industries are dependent on extracting minerals from the earth. Whether it is iron ore or coal, the byproducts are contaminated and they are not disposed off in a manner that can be considered safe. As a result, the industrial waste lingers in the soil surface for a long time and makes it unsuitable for use.

As we know that the agriculture sector plays an important role in the development process. However, many farmers use chemical fertilizers for the increase in the agricultural production. Use chemical utilization has gone up tremendously since technology provided us with modern pesticides and fertilizers. They are extremely harmful for human and other living beings and polluted the land. These chemical fertilizers mix with land and slowly reduce the fertility of land. The chemicals damage the composition of soil and make it easier to erode by water and air. Again oil leaks can happen during storage and transport. The chemicals present in the fuel deteriorate the quality of soil and make them unsuitable for cultivation.

(d) Depletion of natural resources and deforestation:

Natural resources can be classified into renewable and non renewable natural resources. Renewable natural resources refer to those natural resources which can be renewed. Non renewable natural resources refer to those resources which can’t be renewed. So non renewable natural resources are exhaustible. For rapid economic development the underdeveloped and the developing countries extract the natural resources on a large scale. Many heavy industries use the non renewable natural resources as their raw materials to increase production. In his study ‘The Limits to Growth’ published in 1972, D.H. Meadow drew attention to the fact that there are a number of natural whose reserves will going to be exhausted very soon.

On the other hand massive clearing of trees to expand food production, to meet the increasing demand for timber and fuel woods has been denoted as deforestation. According to scientists 33% of total geographical area should be covered by forests for maintaining ecological balance. But the area of forest cover has been reducing in recent time. About 10000 years ago, the forest covers of the earth was 6200 million hectares. Today this figure falls to 4200 million hectares. Poverty and population growth is the main cause of deforestation in the developing countries.

5. Effects of Pollution

The main impact of pollution is climate change and global warming. Increase in surface temperature of the earth is known as global warming. Carbon dioxide, methane and nitrous oxide gas emitted from vehicles and industries are the main cause of growing global warming. Global warming may bring about a rise in the sea level water caused by the melting of glaciers. The first effect will be increase in the problem of flood in many of the coastal areas. A recent study estimated that 100% of Maldives and Bahamas and 18% of Bangladesh will be under sea water by 2050.

6. The need for Sustainable development

From the above discussion it is clear that economic development leads to environmental
degradation. But development is needed there is no question about that. Therefore what is required today is termed as ‘sustainable development’. The term sustainable development is clearly defined by ‘Brundtland Report’. According to them, the development that meets the needs of the present generation without compromising the need of the future generation is called sustainable development. According to sustainable development the needs of the present generation should be met without compromising the interests of the future generation. It stresses on the needs of the poor people. As we know that the environment’s ability to meet the needs of the present and future generations is not infinite therefore we should use the resources efficiently and effectively.

7. Conclusion

From the above discussion it has been clear that there is an inverse relationship between environment and economic development. When we go for more economic development environment is harmed. At the same time we can’t avoid development. Therefore we should go for sustainable development where resources are efficiently used and there is no chance of over exploitation of resources.

8. References

(2) Hanley, N., Shogren, J.F., White, B. ‘Introduction to Environmental Economics’ OUP, pp.4-11
(4) Sankar, U., ‘Environmental Economics’ OUP.