

Development-Environment Trade-off-II

Many economists, particularly in the late 1960 and early 1970s have their opinion that higher GNP is not always synonymous with better quality of life. According to W. Nordhaus and J. Tobin the objectives of economic growth are to be reviewed because it has negatively affected the quality of life, pollution of the environment, waste of natural resources and its failure to solve socio economic problems. That is, as the civilization progresses, it always carries the development environment trade off.

The environmental degradation has three damaging effects. It harms human health, reduces economic productivity and leads to the loss of amenities. The following are the factors that are responsible for development-environment trade-off.

- 1. Industrialization:** The strategy of heavy industrialization is the main cause of environmental degradation in different countries. Industries like fertilizers, iron and steel, chemicals, refineries etc. has lead to land, air and water pollution. The use of fossil fuel, minerals and timbers as sources of industrial energy is depleting these natural resources and degrading the natural ecosystem.
- 2. Agricultural Development:** Agricultural development has been a major factor in environmental degradation. Intensive farming and excessive use of fertilizers and pesticides has led to over exploitation of land and water resources. These have led to land degradation in the form of soil erosion, water-logging and salination.
- 3. Urbanization:** Urbanization which is the concomitant result of economic growth and industrial growth has led to atmospheric pollution. Rapid and unplanned urbanization has led to degradation of urban environment. Slums and shanty towns pollute air and water, and generation of solid and hazardous wastes have contributed to environmental degradation on a vast scale.
- 4. Deforestation:** Deforestation also causes environmental problems. Deforestation leads to felling of trees and of natural plants growth for setting up industries, and building towns, roads, highways and dams etc. It destroys flora and fauna. It leads to localized flooding in hilly and

adjoining areas. There is loss of human and animal life. The green landscape changes into factories, residential and commercial buildings. They produce more heat, noise and pollution which bring environmental degradation and ultimately, result in death of humans and cause of birth defects and genetic mutations.

5. Transport Development: Environmental degradation is also due to transport development in the different parts of the world. Road, air and sea transportation lead to air pollution, noise pollution and sea pollution. The development of port and harbours have led to oil spills from ships and adversely affected fisheries, coral reefs, mangroves and landscapes.

6. Solid and Hazardous Waste:

Solid wastes also create air and water pollution in urban and semi-urban areas. Unregulated urban growth without such facilities as collection, transportation treatment and disposal of solid wastes pollutes the atmosphere and water resources. Rotting garbage and blocked drains spread communicable diseases and pollute ground water resources.

7. Less visible more diffuse pollution: While smogs were a very clear and obvious danger, the effects of increased CO₂ emissions are less immediately obvious and therefore there is less incentive for policymakers to tackle. Scientists state the accumulation of CO₂ emissions have contributed to global warming and more volatile weather. All this suggests economic growth is increasing long-term environmental costs – not just for the present moment, but future generations.

8. Loss of biodiversity: Economic growth leads to resource depletion and loss of biodiversity. This could harm future ‘carrying capacity of ecological systems’ for the economy. Though there is uncertainty about the extent of this cost as the benefit of lost genetic maps may never be known.

9. Long-term toxins: Economic growth creates long-term waste and toxins, which may have unknown consequences. For example, economic growth has led to increased use of plastic, which when disposed of does not degrade. So there is an ever-increasing stock of plastic in the seas and environment – which is both unsightly but also damaging to wildlife.

Therefore, with increased output and consumption we are likely to see costs imposed on the environment. The environmental impact of development includes the increased consumption of non-renewable resources, higher levels of pollution, global warming and the potential loss of environmental habitats.

Thus, the immediate question to be answered at this point is that should economic development be preceded at the cost of environment? The rational thinkers always support the idea of economic development after extensive evaluation of the economic and business benefits but policy makers have to be immensely careful while estimating the cost and benefit specially in terms of environmental cost. Most of these types of developmental projects focus only on the short term benefits and ignore the long term cost that has to be paid. One of the reasons for this is the lack of a clear empirical mechanism to measure or rather quantify the environmental loss and repercussions. The only visible proof of the environmental destruction is the changing environmental conditions but again this cannot be attributed to a particular project, rather it's an aggregate of long term pressure on environment.

Hence, countries must divert their attention to comprehensive, sustainable plans and strategies while setting economic development as a priority. No plans and projects should be encouraged that comes at the cost of environment. At the very least, the countries must ensure that the long term cost is minimized.

Some ecologists argue economic growth invariably leads to environmental damage. However, there are economists who argue that economic growth can be consistent with a stable environment and even improvement in the environmental impact. This will involve

- **A shift from non-renewable to renewable:** A recent report suggests that renewable energy is becoming cheaper than more damaging forms of energy production such as burning coal.
- **Social cost pricing:** If economic growth causes external costs, economists state it is socially efficient to include the external cost in the price (e.g. carbon tax). If the tax equals the full external cost, it will lead to a socially efficient outcome and create a strong incentive to promote growth that minimizes external costs.

- **Treat the environment as a public good:** Environmental policy which protects the environment, through regulations, government ownership and limits on external costs can, in theory, enable economic growth to be based on protection of the environmental resource.
- **Technological development:** It is possible to replace cars running on petrol with cars running on electricity from renewable sources. This enables an increase in output, but also a reduction in the environmental impact. There are numerous possible technological developments which can enable greater efficiency, lower costs and less environmental damage.
- **Include quality of life and environmental indicators in economic statistics:** Rather than targeting GDP, environmental economists argue we should target a wider range of living standards with environmental indicators. (e.g. Genuine Progress Indicators GPI)in making policy and programmes.

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