

Environmental Degradation with Special Reference to Economic Development & Climate

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In recent years development has led to destruction and waste. The problem is that man, in his thrust for better living, has upset the ecological balance which has resulted in global environmental problems. In a more appropriate way it can be said that economic development has resulted in environmental degradation. The need of the hour is to seriously think over it as we are already in an alarming situation. Now the question is what should be done? Whether the environment should be protected or economic development should be facilitated or both should be promoted. The best answer in general would be the last option.

The environment has blessed us with life-giving and life-sustaining resources like oxygen, water, food, clothing, shelter, medicines, raw materials and all other aesthetic pleasures and a livable atmosphere. Economic development is a result of various process and sub-processes of interaction of various economic, political, cultural, environmental and social elements.¹ It is a well known fact that, in the base of all scientific advancement, industrial progress, agricultural development, technological advancement are lying the natural resources. But the problem is that man in the name of growth and development has upset the ecological balance thereby endangering nature as well as himself. The deterioration in the quality of environment is mainly because of resource intensive, growth-oriented development of the industrialized economies. Such a growth-oriented development of the developed economies has resulted in global problems such as greenhouse effect, acid rain, tropical deforestation and so forth and the world is hardly ensuring the criterion of intergenerational equity.² It is awesome that same pattern of development has increasingly been adopted by developing economies. All these resulted in resource-depletion and environmental degradation.

Environmental Degradation, Economic Development & Climate Change

Global warming or climate change or green house effect is one of the five global problems (global warming, stratospheric ozone depletion, acid rain, deforestation, and bio-diversity) which is the threat of a long run increase in the surface temperature. In a greenhouse the enclosing glass panels (which is replaced in modern times by plastic) allows the passage of incoming sunlight, but traps a portion of the reflected infrared radiation, which warms the interior of the greenhouse. The green house gases like carbon dioxide, methane, CFCs, and nitrous oxides play a

similar role, keeping the earth warm and making it habitable. CO₂ is the most important among greenhouse gases and the main source of it is the burning of fossil fuels. Deforestation and other biomass burning are the other major sources of CO₂ emissions. Coal which accounts for about thirty-three percent of fossil fuel combustion globally, is the main culprit in terms of CO₂ emission. According to one study, about 6 billion tons of carbon from burning fossil fuels is emitted into the atmosphere annually.

The world is warming faster than at any time in the last 10,000 years. The 1990s was the hottest decade in the past millennium. As global warming tightens its grip, its effects are being felt from the highest mountain peaks to deep in the oceans, and from the equator to the poles.³ Alpine glaciers of Europe have lost their volume since 1850. Global warming is expected to bring about a rise in the sea level because of the expansion of sea water, caused by the melting of glaciers and perhaps the melting of even polar ice, with a rise in temperature. A recent study estimates that by 2050 low lying island nations like Maldives and Bahamas may disappear and up to 18 percent of Bangladesh could be underwater. It will also result in making many homeless. Besides floods, drought and the spread of infectious diseases like malaria, dengue fever, encephalitis and yellow fever are also prevalent, particularly in the temperate regions. The worst impact is on agriculture, horticulture and ecosystem, as the varying climate change will drastically affect agriculture because of the inability of crops to withstand changes in temperature. In agriculture too much water or water delivered at the wrong time is more difficult to cope up with than too little water.

Alternative Strategies for Sustainable Development

On account of the growing awareness of the environmental crisis that is happening, these issues are today assigned top priority in national and International agendas. The United Nations General Assembly through its agenda-21 (UNCED, 1992) has provided a comprehensive picture of the inter-link related to environment and sustainable development. According to this report, by integrating environment and development approaches in national and global policies, sustainable development would automatically get promoted. The experts have suggested alternative strategies for revitalizing growth with sustainability. Some notable suggestions for promoting sustainable development are as such:

A. Solow's Strategy for Promoting Sustainability⁴

Solow has given very interesting views for promoting sustainable development in his paper presented in 18th J. Seward Johnson Lecture to the Marine Policy Centre, Woods Hole Oceanographic Institution, at Woods Hole, Massachusetts, 14th June 1991. He said that, "Pretty clearly the notion of sustainability is about our obligation that we are supposed to have for future generations....It's an obligation to conduct ourselves so that we leave to the future the option or the capacity to be as well off as we are." He further states that, "There is no reason for our society to feel guilty about using up aluminium as long as we leave behind a capacity to perform the same or analogous function by using other kinds of materials-plastics or other natural or artificial materials. In making policy decisions we can take advantage of the principle of substitutability, remembering that what we are obligated to leave behind

is a generalized capacity to create well being, not any particular thing or any particular natural resource.The something that we provide in exchange could be knowledge, could be technology. It need not even be physical object." Solow very clearly says that, "Sustainability is about distributional equity....It's about the sharing well being between the present people and the future people. He suggests that current environmental protection contributes to sustainability if it comes at the expense of current consumption. Not if it comes at the expense of investment, of addition to future capacity....Investment in the broader sense and investment in knowledge, especially technological and scientific knowledge, is an environmentally clean an asset as we know.

B. The Brundtland Report:

In December 1983, UN General Assembly organized the World Commission on Environment and Development. It has submitted its report in 1987 with the title "Our Common Future". This report was a landmark in the history of sustainable development. It states "the challenge of finding sustainable development paths ought to provide the impetus - indeed the imperative- for a renewed search for multilateral solutions and a restructured International economic system of cooperation.⁵ This report has suggested the following alternative strategies for promoting sustainable development:

1. An economic system that is able to generate surpluses and technological knowledge on a self- reliant and self-sustained basis.
2. A technological system that can search continuously for new solutions.
3. A social system that provides solutions for the tensions arising from disharmonious development.
4. A political system that promotes effective participation in decision -making by the citizens.
5. A production system that also makes efforts for preserving ecology along with promoting development.
6. All the administrative system that is flexible and has the capacity for self-corrector.
7. An International system that can foster sustainable patterns of trade and finance.

Thus this report has given importance to all the political, economic, social, technological and International cooperation for obtaining sustainable development.

C. Preservation of Natural Resource.

For preserving World's natural resources IUCN has prepared a preservation plan. This plan has adopted three strategies namely:

1. Ecological processes, covering ecological sound management, reservation of fertile cropland, protection of forest and pasture land and control on discharge pollutants.
2. Genetic diversity, which includes protection of trees and plants, prevention of extinction of the species, on-site preservation programmes etc.
3. Sustainable utilization, under this strategy emphasis would be given for resource use management, timber management, grazing land management, species utilization management etc.

D. Green development:

This concept of development is basically the result of modern thinking. According to it, only green development can promote

sustainable development. Friberg and Hettne (1985)⁶ outlined the principles for green development. These are as such:

1. Social nit of development should be culturally defined community and its development should be rooted in its values and institutions.
2. Self-reliance so that each communities relies primarily on its own strength and resources.
3. Social justice;

Ecological balance, implying on awareness of local ecosystem potential and local and global limits⁷.

E. Eco Development.

It may be defined as, "the awareness for the ecosystem and proper way of human intervention for environmental soundness. It put stress on changing in the eco system for higher productivity and maximum human welfare."⁸ This term was first used by Maurice Strong, Secretary General of the Stockholm conference.

Rindell (1981)⁹, has presented the principles of eco- development which include establishment of ideological commitment, sharpening of political and administrative integrity, attainment of International parity, alleviation of poverty, hunger, diseases, misery, reduction of arms, promotion of self sufficiency, conservation of resources, protection of environment etc.

The concept of eco development has promoted the value of sustainable development by focusing on basic needs, participating planning and grass-roots activation, appropriate technology.

F. International Cooperation for Sustainability:

The Brundtland report, put stress on multinational cooperation for environment and emphasized measures which together would offer new horizons for International relations, the world economy and the developing countries.¹⁰ The packages suggested by Brundt Commision involved growth of both North and South, massive transfer of capital, expansion of world trade, the end of protectionism, an orderly monetary system and moves towards international equality and peace. It put stress on poverty elimination. It says, "The conquest of poverty and the promotion of sustainable growth are matters not just for survival of poor, but for everyone."

Conclusion:

Mark Twain, a leading environmental economists once remarked, "Man is the only specie that feels shame or has reason to feel shame" because he has polluted the atmosphere. After the industrial revolution the world moved fast in providing better living to man which is termed as growth. But at same time the world started degrading the level of purity of nature in all forms. In its thrust towards achieving higher and faster economic growth man has totally ignored environmental concerns. The process of growth and development has disturbed the balance in the eco-system. The worst of all this is that the survival of living being is now in danger. This is an alarming situation which needs our full attention.

The 'spaceship earth' vision of the economist and philosopher Kenneth Boulding holds that the basic truism can be the starting point for a deeper analysis of the relationship between economic growth and environmental issues. Boulding argues that man must begin to see the earth as a closed system in contrast to the traditional conception that

natural resources are boundless. There is a need of intensive research in eco-friendly techniques of production. Greater investment are needed for the abatement of waste and recycling of materials. Green GDP, environmental cost accounting etc. should be incorporated in national policies both in developed and developing countries. A comprehensive policy is needed at all the levels. Environmental protection should be adopted as the top priority. This can only be the remedy to save our nature and thus to ourselves.

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