

ENVIRONMENTAL SUSTAINABILITY AND ECONOMIC DEVELOPMENT: A RELATIONSHIP

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ABSTRACT

Economic development and environmental sustainability are two significant concepts that are often viewed complicated but are interconnected. An analytical discussion is made about the concepts in this paper and author attempts to discuss the relationship of the two concepts and also suggests alternative opportunities to achieve balanced growth. Economic Development refers to the process by which a nation brings reforms in the economic, political, and social status of its people. Meaning of development is defined as a long term process which needs serious efforts by any country towards improving the standards of living of people of the country. Planned and organized efforts required to achieve the economic development. Environmental Sustainability focuses on meeting the needs of the present without compromising the ability of future generations to meet their own needs. In the process of achieving economic growth it needs to be ensured that environmental conservation is taken care with proper plan of utilizing resources available to meet the human requirements of life. Globally there has

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been serious attempts and severe competition among all the nations towards attaining economic growth using the resources available and some countries have succeeded in achieving the development but damaged the nature to the maximum effects. But environmental degradation has been taken serious by both developed and progressing countries, serious global discussions and meets have taken place to discuss the actions and initiatives to be taken and followed to consider the concerns of environmental conservation.

KEYWORDS: Development, Environment, Sustainability, Critical, Concepts, Balanced Growth, Opportunity.

Introduction:

Environment pollution is a serious issue which entire globe is facing due to which the quality of natural resource is deteriorating resulting in negative impact on the human environmental health. This may cause the future of the human generation. The problem of depletion of natural resources is the result of over competition of entire world for the economic growth. Here is an attempt made to analyze the relationship between these two concepts and requirements and the necessity of maintaining balance between these two. Economic Development refers to the process by which a nation improves the economic, political, and social well-being of its people. It's often measured by indicators like GDP growth, income per capita, industrialization, infrastructure development, and technological advancement. The goal is typically to create higher living standards, reduce poverty, and improve quality of life. Environmental Sustainability focuses on meeting the needs of the present without compromising the ability of future generations to meet their own needs. This involves protecting natural resources, preserving ecosystems, minimizing pollution, and mitigating climate change. The core idea is to maintain ecological balance and ensure the long-term

health of the planet. The World Development Report delves into select representative standards to evaluate their impacts on the environment and economic development. These will include standards related to local environmental issues, such as water and air quality, and standards related to the global environmental challenge, in terms of both mitigation and adaptation (such as emission standards, waste management standards, and passive and active cooling standards). Finally, the report will draw lessons from applying environmental standards in various contexts and offer policy implications to address the critical challenges associated with environmental standards. Water quality, fuel economy, waste management, and cooling technology standards are briefly described next. The chapter will present a more systematic discussion of the effective setting and impact of environmental standards for clean air and energy and to encourage adaptation to climate change, focusing on improvements in cooling technologies (both passive and active).

Objectives of the Study

- Understand the concepts of economic development and environmental sustainability
- Discuss the inter relationship between these two concepts
- Discuss the challenges and opportunities
- Suggest remedies to maintain balanced growth

Methodology The present study is based on the secondary data published. The study is descriptive in nature. Data is collected from the various secondary sources like journals, websites, working papers and analyzed. The paper makes use of the data provided in the 2024 Global Report on Food Crisis and European Parliamentary Research Service.

Discussion on Economic Development and Environmental Sustainability Economic development refers

to structural transformations in an economy that result in increased production, employment, income and standards of living which includes rapid industrialization, higher gross domestic production, and income of every citizen of the country. Economic development is a multidimensional process of social, economic, political and institutional, and attitudinal reforms. It is a qualitative term indicating continuous increases in real national income and economic structure. Economic growth simply means increased production of goods and services, as measured by rises in gross domestic production, and income of every citizen of the country. It includes structural transformation, broad improvements, qualitative and quantitative changes, long term process such as changing economic structure, industrialization, technological advances, increasing labour productivity, reducing poverty, inequality and unemployment, it also includes improvements in social, institutional and environmental conditions, improved infrastructure, increased life expectancy and higher literacy rates. Development ambitions cannot be met without integrating the environmental risks and opportunities. Environmental sustainability is a prerequisite for sustained and irreversible socioeconomic development and poverty eradication. Ensuring long-term human well-being without depleting resources of the planet: living within the global safe operating space and doing more and better with less. This can be achieved through inclusive and green economic development, by reducing the material, energy and pollution intensity of current economic activities, while maintaining and sustainably increasing the productivity of those activities. The features of environmental sustainability are, renewable resource usage, resource conservation and efficiency, pollution control, biodiversity protection, water reduction and management, sustainable agriculture using the farm practices to reduce environmental hazards, use of pesticides and chemical, sustainable urban development practices like promoting eco-friendly transport.

The Relationship Between Economic Development and Environmental Sustainability The relationship between the environment and sustainable development is interdependent, where environmental sustainability acts as a fundamental pillar for economic and social growth. Sustainable development ensures that human needs are met without destroying natural ecosystems through pollution, deforestation, or resource depletion. The major aspects of the relationship include fundamental requirement of healthy environment as degradation leads to climate change, biodiversity loss and food insecurity, interdependence of economy, society and environment neglecting one collapses other, challenges like rapid industrialization and urbanization, unsustainable industrial and urban practices create severe environmental damage such as water shortage and pollution, solution strategies like using the eco-friendly technologies, improving environmental education and fostering global cooperation, policy support like promoting green investments can balance economic growth with ecological preservation.

It has been realized that ignoring environment for the sake of development is actually a bad approach of any nation because economic development leads to:

Resource Scarcity Moreover, unsustainable extraction of groundwater resources is causing a decline in the water levels in some of the states of India such as Tamil Nadu, Chhattisgarh, Goa, Odisha and Rajasthan. Data of various studies speak of increasing dependency and unsustainable use of groundwater resources. It had revealed that in 2013, the country used 62 per cent of the net available annual groundwater, which is a 58 per cent increase from 2014.

Climate Risks Industrial activities and improper disposal of waste are causing the severe air, water, and soil pollution. Over-extraction of natural resources like minerals, timber, and water. Climate change has had a huge impact on water

resources. The report shows a 24% decline in the area under snow and glacier in some states and also notes the impact of climate change on wetlands or water bodies in Himachal Pradesh, Sikkim and Jammu Kashmir. Increased greenhouse gas emissions leading to global warming and extreme climate changes. India faces a complex challenge regarding its groundwater resources, marked by disparities in distribution, over-exploitation concerns, and geological influences. With only 4% of the world's freshwater resources accommodating 16% of the global population, India faces significant disparities in water availability.

Biodiversity Loss Biodiversity loss also has profound economic consequences, particularly in sectors like agriculture, fisheries and healthcare. It is estimated that the global economic impact of biodiversity loss amounts to US\$ 10 trillion annually, including healthcare costs from increased disease transmission and agricultural losses from pollinator declines. For example, the decline in bee populations, which are responsible for pollinating crops worth over US\$ 235 billion annually, threatens global food security and nutrition. Biodiversity loss is occurring at an alarming rate, with recent estimates showing that species extinctions are currently 10 to 100 times higher than the natural baseline. This is largely due to human activities like deforestation, habitat fragmentation, and climate change. This loss threatens essential ecosystem services, including pollination, soil fertility, and water purification, with direct consequences for human health. For example, the degradation of wetlands, which filter freshwater, has led to a 35% decline in global wetland coverage since 1970, increasing waterborne diseases and reducing water availability for over 2 billion people. Biodiversity loss and ecosystem degradation are becoming major health concerns. When ecosystems are disrupted, services like clean air, water, and food can be affected. Additionally, we lose valuable natural resources – like plants and animals – that may hold untapped

benefits for health and medicine. The development has led to the destruction of habitats and extinction of species.

Towards Sustainable Development Neglecting environment focusing more on only economic development without considering the concept of “sustainable development” emerged to address this conflict, advocating for development that integrates environmental protection, social equity, and economic growth. The key aspects towards sustainable development include Renewable Energy, Resource Efficiency, Conservation and Restoration, Green Technologies, Policy and Governance and also shifting from fossil fuels to solar, wind, hydro, and geothermal energy.

- Resource Efficiency: Using resources more efficiently in production and consumption.
- Conservation and Restoration: Protecting natural habitats, restoring degraded ecosystems, and planting trees.
- Green Technologies: Developing and adopting technologies that minimize environmental impact.
- Policy and Governance: Implementing regulations, incentives, and international agreements to promote sustainability.

Many international initiatives, such as the United Nations Sustainable Development Goals (SDGs), aim to guide countries towards a more balanced approach, recognizing that a healthy planet is fundamental for long-term economic prosperity and human well-being.

Conclusion:

It is clear from the above discussion that it needs to be balanced between both the concepts of economic development and environmental sustainability to meet the requirements of both present and future generations. It needs to be understood that both are equally significant concepts and serious efforts,

actions are required to be made without which it may cause severe impact on the human life of present and future.

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