

ENVIRONMENTAL SUSTAINABILITY AND GLOBAL WARMING: THE ROAD AHEAD

Dr. Mothi George

Associate Professor, Department of Economics, Government College, Ambalapuzha, Kerala, India

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ABSTRACT

The environment is the provider of the crucial elements to satisfy the basic needs of human life. However, rapid development has set free a set of environmental issues. Global warming is the biggest threat and obstacle facing the world and in the path towards environmental sustainability. Modern societies struggle to find a balance between development needs and environmental sustainability.

KEYWORDS: *Sustainable Development, Environmental Sustainability, Global Warming, Climate Change*

INTRODUCTION

With the adoption of market-oriented policies and the active participation of the private sector, the global economy has achieved significant economic and social development. Significant economic and social progress has extracted a high cost in the form of widespread degradation and depletion of our natural environment. The environment provides the vital elements to satisfy the basic needs of human life. It also plays a crucial role in societies' ethical, religious, social, and cultural values. Palmer (1998) adds political, economic, technological, moral, aesthetic, and spiritual aspects to the environment. Man is dependent on the basic biological systems for their living, health, and enjoyment of life. Ecosystems provide many services to humanity, such as recreation and tourism. This diversity in nature indicates the complexity of the issues concerning natural resource management. Ecosystem services provided by the ecosystem include protecting water and soil, nutrient storage, pollution breakdown and absorption, climate stability, maintaining ecosystems, and recovery from unpredictable events. Ecological diversity is essential in the care of ecosystems. Any degradation in ecosystems will affect plants and animals and represent real threats to human life on the planet. The economy and environment are closely related. The input used in the economic activity includes labor, capital, and raw materials. The exploitation of natural resources also goes up along with the economic activity, leading to its depletion. On the output side, along with the economic goods, pollution is also an output. All economic activity requires natural resources and releases pollution, imposing environmental costs.

Environmental costs include natural resource depletion, pollution, and the breakdown of the life support system of our planet. Rising Population and urbanization, and increased use of natural resources have given rise to environmental problems like loss of biodiversity and habitat destruction, depletion and degradation of forest resources, marine resources, air and water pollution, and waste disposal. According to World Development Report (1999-00), Economic growth and urbanization are closely related trends. Urbanization creates severe environmental problems. Economic growth, urbanization, and environmental degradation are closely related. Loss of crops and grazing land, depletion of the world's tropical forests, species extinction, rapid human population growth, shortages of freshwater resources, overfishing, habitat

destruction, pollution, threats to human health, global climate change, acid rain, and pressures on energy resources are the ten main threats to the environment. There are more than six billion people globally, and it is increasing by about 78 million people per year. The Population rapidly consumes the once vast supply of natural capital, especially the resources of deep and rich agricultural soils, natural sources of groundwater, and biodiversity (Nancy Kanbar 1999). The paper analyses the impact of development on the environment the issues faced while pursuing environmental sustainability.

SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL SUSTAINABILITY

Sustainable development is a development process that meets the needs of the present without any compromise on the ability of future generations to meet their own needs. Environmental sustainability is the rate of renewable resource harvest, pollution creation, and non-renewable resource depletion that can go on indefinitely. With the arrival of the industrial revolution, technology, and innovations, increased production became a way to become prosperous. Adam Smith, Ricardo, and J S Mill considered the production of goods as the central idea of economics and the need for a free market to organize the production factors for continuous production. Modern economic thought is all about the market economy and its global domination. It is a fact that markets are hardly competitive, with monopolies and oligopolies around. Although Marxism emerged as a strong critic of market economics, it gave importance to human labor without paying much attention to natural capital. Keynesian economics, which occurred amid the Great Depression of the 1930s, looked to resolve the failures of the free market system by government activity. It also brought Gross Domestic Production (GDP) (sum of production, consumption, and investment) as the best measure to assess economic growth. The primary fault of the dominant schools of economic thought is that it deals with distributing scarce resources among competing demands. Every resource is treated as capital and can produce marketable commodities. Henry Morgenthau argued for a dynamic world economy in which the people of every nation will be able to enjoy, increasingly, the fruits of material progress on earth infinitely blessed with natural riches. The basic fact is that resources are scarce and finite. Another issue for economics is market failure and the inability of GDP to measure the actual state of society and economy.

DEVELOPMENT AND ENVIRONMENT

The twenty years after the second world war was known as the development decades. The developed countries attained affluence and high standards of living. More significantly, newly independent countries like India embarked upon rapid industrialization to reach higher and higher levels of economic growth. The leaders had to devise a development plan to meet the financial expectations of its citizens. The Environmental Kuznets Curve provided the theoretical justification. The Environmental Kuznets Curve hypothesis gives an inverted U-shaped relationship between different pollutants and per capita income. The environmental Kuznets curve suggests that economic development initially leads to a degradation of the environment to a certain level of economic growth. Afterward, a society begins to improve its relationship with the atmosphere, thereby reducing the levels of degradation. Nevertheless, such a level seems almost unachievable as the world community faces significant environmental issues, including Ozone depletion, Air pollution, Water pollution, Deforestation, E-Waste, Global warming, and climate change.

THE CHALLENGE OF GLOBAL WARMING

Without a doubt, global warming is the biggest threat that the world faces and the biggest obstacle in the path towards environmental sustainability. A solution will be doubtful since it demands a fundamental change or adjustment in how our

society organizes. The other issue, especially ozone depletion, is a relatively simpler one since it is possible to substitute chemicals that contribute to the issues with new, less toxic ones. The main contribution to global warming has been the addition of carbon dioxide to the atmosphere by burning fossil fuels mainly for energy. From a primitive society, human society has transformed itself into a high energy-consuming one. The modern industrialized, urbanized, high consumption societies were built on fossil fuel use. Developed and developing countries often clash over the issue of who should significantly reduce the emission of carbon dioxide. Developing countries put the onus on their developed counterparts, raising equity issues. They claim that any considerable reduction will affect their development process. Countries like India, China, and Brazil expect to increase their emissions rapidly to meet their development targets. Another issue is the presence of powerful interest groups and countries whose future depends on the continued and greater use of fossil fuels. Technical improvements made in the internal combustion engines have made automobiles fuel-efficient. However, evidence shows that increased energy efficiency and more wealth in society will only increase the energy demand. Nuclear energy is an alternative to fossil fuels since it does not emit carbon dioxide. However, the amount of energy required for its construction, mining, and enrichment of uranium is significant. Many nuclear power plants are required to at least double the present rate of energy production, and nuclear fusion power is still in its infancy. The construction of nuclear plants takes time, and the cost of nuclear energy is high. The threat posed by vast amounts of radioactive fuel stored in many nuclear plants is scary, considering the various forms of threat from terrorism along with the complicated issue of nuclear waste disposal. Clean energy like wind, solar and tidal are additional sources rather than game-changers.

Global warming will complicate the already existing environmental problems. Air and water pollution and pressure on resources will increase with industrial, consumption, and population expansion. All these issues have to be solved by a world becoming increasingly unequal in terms of wealth distribution, income, and power. Global warming-induced climate change will create acute economic and political instability in a globalized world.

Environmental movements triggered by Rachel Carson, "Silent Spring" is still active in engaging world leaders and the public in the debates on environmental protection. The latest was the U.N. Climate Change Conference (COP21) in Paris to resolve climate change and its adverse effects. The Agreement (joined by 191 countries and European Union), a legally binding international treaty, gave long-term goals to all countries, including a significant reduction in global greenhouse gas emissions, to keep the global temperature increase to 2 degrees Celsius and to go ahead with efforts to reduce it further to 1.5 degrees Celsius. The commitments made will be reviewed every five years. An important decision is to provide developing countries financial support to review countries' commitments every five years; provide financing to developing countries to alleviate climate change, build resilience and augment abilities to adapt to climate effects. The Agreement gives a platform for developed nations working with developing countries to tackle the effects of climate change efforts and create a framework for transparent monitoring and reporting a country's climate targets. The Agreement gives a long-lasting framework for a joint effort and is a good beginning towards the ultimate goal of a net-zero emissions world. Implementation of the Agreement is also vital for achieving the Sustainable Development Goals (Robert Falkner 2016).

CONCLUSION

Human society is yet to find a suitable way to take resources from the environment less damagingly. Acknowledging that some degradation is inevitable, the environment will tolerate it. The biggest challenge is to rightly foresee the optimum balance between the demands of society and the maximum environmental tolerance point. The problems of modern

societies are coming from how they have evolved into a modern progressive one which is urban, industrial, high consuming, and high energy-consuming. The other side of this spectacular growth is the unprecedented and complex environmental problems. Whether modern society can ever achieve environmental sustainability or is on the path to achieving it remains to be seen.

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