

## “Critical Evaluation of Impact on Economic Growth of India Due to the Environmental degradation”

**Mohammad Junaid Alam**  
Assistant Prof. Economics  
College of Business Administration  
University of Hail, Kingdom of Saudi Arabia

**Abstract:** It is indeed quite obvious that the economics growth has negative impact over the environment. The growth comes with the absolute degradation of the pivotal factors such as natural resources, water pollutions due to mismanagement and agricultural residues from the uses of pesticides and fertilizers, air pollutions because of industrial exhaustions of carbon dioxide and carbon monoxides etc.

This article has observed a reverse impact of the environmental degradation. Though there are several impacts including social, cultural, health and other related indicators are negatively affected, but is there any indication of impacts over the economic growth of the country? The article concluded that there are obviously negative impacts over there. It has been also concluded that the means of degradation is not only the environmental factors, but obviously it has greatest impact over the human health and human capital, Industrial productivity and several other indicators of economic growth. The paper suggested that the solution for the balance growth is natural and inclusive which also shall develop a system that shall take the environment as important factor.

The major suggestion embarked as the adequate address of the present and future environmental problems and their solutions with the help of Government and the apex bodies.

**Keywords:** Environmental degradation, Economic Growth, Natural Resources, Agricultural residues, Industrial productivity and Human Capital.

### INTRODUCTION:

As per the hypothesis of the environmental Kuznets curve (EKC) the environmental damage first increases with the increase in income and then declines. It means that neither the economic growth is a threat to global sustainability nor there are environmental limits to growth. In the last five years there have been several empirical investigations of the EKC hypothesis. This paper provides a critical view of this work. The report noted that the extent to which these factors operated to reduce environmental impact per unit, economic activity would depend upon the incentive structures facing agents, and policy settings.

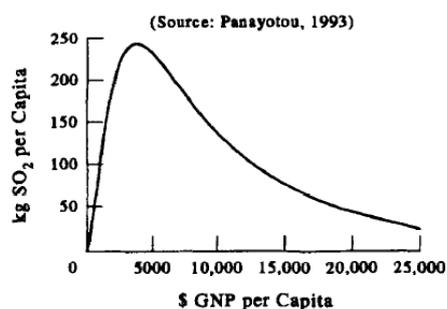


Figure 1. An estimated EKC for SO<sub>2</sub>.

It observed that: “As incomes rise, the demand for improvements in environmental quality will increase, as will the resources available for investment”. Actually it was noted that in some cases the evidence was consistent with the EKC hypothesis. Major environmental issues are forest and agricultural degradation of land, resource depletion (water, mineral, forest, sand, rocks etc.), environmental degradation, public health, loss of biodiversity, loss of resilience in ecosystems, livelihood security for the poor. The main sources of pollution in India include the rampant burning of fuel -wood and biomass such as dried waste from livestock as the primary source of energy, lack of organized garbage and waste removal services, lack of sewage treatment operations, lack of flood control and monsoon water drainage system, diversion of consumer waste into rivers, cremation practices near major rivers, government mandated protection of highly polluting old public transport and continued operation by Indian government of government owned, high emission plants built between 1950 to 1980. Air pollution, poor management of waste, growing water scarcity, falling groundwater tables, water pollution, preservation and quality of forests, biodiversity loss, and land/soil degradation are some of the major environmental issues which India faces

today. India's population growth adds pressure to environmental issues and its resources.

Now the questions arise -Will the world be able to sustain economic growth indefinitely without running into resource constraints or despoiling the environment beyond repair? What is the relationship between a steady increase in incomes and environmental quality? Is there trade-offs between the goals of achieving high and sustainable rates of economic growth and attaining high standards of environmental quality? For some social and physical scientists such as Georgescu-Roegen and Meadows et al., growing economic activity (production and consumption) requires larger inputs of energy and material, and generates larger quantities of waste by-products. Increased extraction of natural resources, accumulation of waste and concentration of pollutants will therefore overwhelm the carrying capacity of the biosphere and result in the degradation of environmental quality and a decline in human welfare, despite of rising incomes. Furthermore, it is argued that degradation of the resource base will eventually put economic activity itself at risk. To save the environment and even economic activity from itself, economic growth must cease and the world must make a transition to a steady-state economy.

#### **Causes of degradation:**

Some of the major causes of environmental degradation are as follows:

- (1) Population Explosion
- (2) Increasing Number of People below Poverty Line
- (3) Increasing Urbanization
- (4) Modernization of Agriculture
- (5) More Rapid Industrialization
- (6) Multiplicity of the Means of Transport
- (7) Discard of Civic Norms.

The major impact of environmental degradation is on rural resource base including land-use, water, fuel and pollution. When compared to the urban life, the losses of rural society are lesser but the degradation in the village community is directly related to their sources of livelihood. The village people traditionally are dependent on forest wood and minor forest products for their living. With the degradation of forests, the village sources of subsistence have dried up. Some forms of degradation are directly related to the implementation of developmental programs. The construction of dams major or minor has rendered the cultivable soil as a saline soil. These dams cause multiplier effect on the village life. The big farmers are the gainers of canal water irrigation. Irrigation increases the farm growth and ultimately the village society becomes a class society. The environmental degradation has ruined the village life. Such a deteriorating environmental situation raised some important questions: If the present trend of degradation continues? what is the future of

village community? From where will the villagers collect their fuel wood? How the peasants would get their implements repair and how will they be able to build their house? The questions are several but the basic thing is that those who are guilty of committing the crime of environmental degradation? If we get a glimpse of our rural India, we would find that there are a few pockets in the country which have witnessed a large quantum of environmental degradation. Among these are included the industrial belt in western Maharashtra, the areas around Coimbatore in Tamilnadu, metropolises like Delhi and Chennai, and tracts of green revolution in Punjab and Haryana. The degradation of environment is traced to some forces. These forces have been explained by what is called as the 'iron-triangle'. This term is used by the Americans. The iron-triangle is explained by the following categories of people who benefit from the exploitation of the resource base:

- 1) Those who, benefit from the subsidies: the industrialists, the urban populations, rich farmers;
- 2) Those who decide on who is to be subsidized at whose cost: the politicians; and
- 3) Those who administer the subsidies: the bureaucracy.

Thus, according to the iron-triangle, the benefits of environmental degradation are cornered by the industry, urban populations, rich farmers, politicians and bureaucrats. Madhav Gadgil argues that the subsidies given to the farmers and people of industry generally go in favour of the rich farmers, contractors and others. This kind of explanation given by the American social scientists describes the situation of America. In our country, agriculture is given top priority because it is concerned with the food production. The farmers are provided subsidies or concessions on the consumption of electricity, diesel and fertilizers including the insecticides. For all these agricultural inputs there are liberal provisions of credit and subsidies. All these benefits are availed of by the big farmers and the absentee landlords. In the context of our country, besides subsidies, there are a large number of other forces also which are responsible for the environmental decay. The iron-triangle thus explains a part of the situation and not the whole.

#### **Challenges due to the Environmental Degradation in India:**

There are several indicators of economic growth in India which faced severe challenges. Among the major economic indicators, GDP, Pollution, Physical Health, Infrastructure, Education, Industries and Agriculture are unanimously accepted by the scholars. Are these indicators really affected negatively too? Generally these indicators have proportionate relationship with the

economic growth of any country. Nevertheless, these indicators have negative impacts too.

### **Impact of Environmental Degradation on Economic Indicators**

To a large extent, environmental degradation is the result of market failure, that is, the non-existent or poorly functioning markets for environmental goods and services. In this context, environmental degradation is a particular case of consumption or production externalities reflected by divergence between private and social costs (or benefits). Lack of well-defined property rights may be one of the reasons for such market failure. On the other hand, Market distortions created by price controls and subsidies may aggravate the achievement of environmental objectives.

The level and pattern of economic development also affect the nature of environmental problems. India's development objectives have consistently emphasized the promotion of policies and programs for economic growth and social welfare. Between 1994-95 and 1997-98, the Indian economy has grown a little over 7 per cent per annum: the growth of industrial production and manufacturing averaging higher at 8.4 per cent and 8.9 per cent respectively during these years. The manufacturing technology adopted by most of the industries has placed a heavy load on environment especially through intensive resource and energy use, as is evident in natural resource depletion (fossil fuel, minerals and timber), water, air and land contamination, health hazards and degradation of natural eco-systems. With high proportion fossil fuel as the main source of industrial energy and major air polluting industries such as iron and steel, fertilizers and cement growing, industrial sources have contributed to a relatively high share in air pollution. Large quantities of industrial and hazardous wastes brought about by expansion of chemical based industry have compounded the wastes management problem with serious environmental health implications.

Transport activities have a wide variety of effects on the environment such as air pollution, noise from road traffic and oil spills from marine shipping. Transport infrastructure in India has expanded considerably in terms of network and services. Thus, road transport accounts for a major share of air pollution load in cities such as Delhi. Port and harbor projects mainly impact on sensitive coastal eco systems. Their construction affects hydrology, surface water quality, fisheries, coral reefs and mangroves to varying degrees. 46. Direct impacts of agricultural development on the environment arise from farming activities which contribute to soil erosion, land salination and loss of nutrients. The spread of green revolution has been accompanied by over exploitation of land and water resources, and use of fertilizers and pesticides have increased many fold. Shifting

cultivation has also been an important cause of land degradation. Leaching from extensive use of pesticides and fertilizers is an important source of contamination of water bodies. Intensive agriculture and irrigation contribute to land degradation particularly salination, alkalization and water logging.

The impact of environmental disasters can be devastating on the social, economic, and environmental systems of a country or region as well as the global ecosystem. Environmental disasters do not recognize man-made borders, and threaten but the legacy is left to future generations of a clean and supportive environment. As the earth and ecosystems both are interdependent on each other, international co-operation is paramount to prevent quickly and effectively the effects of environmental disasters. Thus, the governments, International organizations and communities must work together at all levels to lessen the risks associated with environmental degradation and its contributing factors including climatic changes and to ensure that vulnerable people are prepared to survive and adapt.

According to Times News Network, published on July 17<sup>th</sup> 2013 quoting the World Bank report India MUMBAI, a new report released by the World Bank estimates that environmental degradation is costing India around 5.7% of its GDP every year. The report, "Diagnostic Assessment of Select Environmental Challenges in India" is the bank's first national economic assessment of environment-related degradation in India. It analyzed the losses of environmental health and natural resources, and provided a valuation of biodiversity and ecosystem services in India, among other valuations. "The annual cost of environmental degradation in India amounts to about Rs 3.75 trillion (\$80 billion) equivalent to 5.7% of GDP," stated the report. The most important causes of it were pollution, mainly outdoor pollution arising from particulate matter (PM10) that was largely due to the burning of fossil fuels along with the losses due to the lack of access to clean water supply, sanitation and hygiene, stated the report. "The costs for outdoor/indoor air pollution are primarily driven by an elevated exposure of the young and productive urban population to particulate matter pollution. The report was meant to underline the need for India to green its growth. Furthermore, the Times News Network in its published report on 12<sup>th</sup> August 2013, 'India's remarkable growth story clouded by a degrading environment'. The past decade of rapid economic growth has brought many benefits to India but on the other hand the environment has suffered the most, causing to serious air and water pollution for the population. India's remarkable growth record, however, has been clouded by a degrading environment and growing scarcity of natural resources. By visualising the size and diversity of Indian economy, environmental risks

are wide ranging and are driven by both prosperity and poverty.

A new report by the World Bank finds that environmental degradation costs India \$80 billion per year or 5.7% of its economy. In a recent survey of 132 countries whose environments were surveyed, India ranked 126<sup>th</sup> overall and last in the 'Air Pollution (effects on human health)' ranking. The survey concluded that India has the worst air pollution in the entire world, beating China, Pakistan, Nepal and Bangladesh. Also, according to another recent WHO survey, across the G-20 economies, 13 of the 20 most polluted cities are in India. Simultaneously, poverty remains both a cause and consequence of resource degradation: agricultural yields are lower on degraded lands, and forests and grasslands are depleted as livelihood resources decline. To subsist, the poor are compelled to mine and overuse the limited resources available to them, creating a downward spiral of impoverishment and environmental degradation.

According to Times News Network report, Sep 4, 2014, Environmental degradation is a major factor in perpetuating poverty, particularly among the rural poor in the bio-rich northeastern region of the country, experts have pointed out. The Experts on the matters relating to the environment and ecology point out that environmental degradation has adverse effects on soil fertility, quality and quality of water, forests, wildlife and fisheries and makes air all the more impure. The dependence of rural poor, particularly the tribal societies, on natural resources is self-evident. Women, being directly involved in collecting items of food from nature, are more vulnerable to the adverse impacts of degradation of natural resources.

One of the greatest challenges facing humanity is environmental degradation which includes-

- (i) Deforestation, desertification, pollution, and climate change – an issue of increasing concern for the international community.
- (ii) Environmental degradation increases the vulnerability of the societies it affects and contributes to the scarcity of resources.
- (iii) Climate change will lead to an increase in the intensity and frequency of weather extremes, such as heat waves, floods, droughts and tropical cyclones.
- (iv) The people hardest hit by climate change and environmental degradation are those living in the most vulnerable areas, including coastal communities, small island nations, Sub-Saharan Africa and Asian delta regions. It is the poorest

of the poor, who lack the resources to prepare, adapt and rebuild, that are most affected.

- (v) Environmental degradation can lead to a scarcity of resources, such as water and farmable. Extreme weather events, such as severe flooding, increase the spread of waterborne diseases, such as malaria and diarrhea. The effects of the major environmental problems on both health and productivity are:

#### **Water pollution and water scarcity:**

According to the Report of UN, more than two million deaths and billions of illnesses a year are attributable to water pollution. Water scarcity compounds these health problems. Productivity is affected by the costs of providing safe water, by constraints on economic activity caused by water shortages and by the adverse effects of water pollution and shortages on other environmental resources.

#### **Air Pollution:**

As per the estimation of UN, urban air pollution is responsible for 300,000—700,000 deaths annually and creates chronic health problems for many more people. Restrictions on vehicles and industrial activity during critical periods affect productivity.

#### **Solid and hazardous wastes:**

Diseases are spread by uncollected garbage and blocked drains; the health risks from hazardous wastes are more localized but often acute. Wastes affect productivity through the pollution of groundwater resources.

**Soil Degradation:** Depleted soils increase the risks of malnutrition for farmers. Productivity losses on tropical soils are estimated to be in the range of 0.5-1.5 per cent of GNP while secondary productivity losses are due to siltation of reservoirs, transportation channels and other hydrologic investments.

#### **Deforestation:**

Due to deforestation floods are caused which can result the death and disease. Loss of sustainable logging potential and of erosion prevention, watershed stability and carbon sequestration provided by forests are among the productivity impacts of deforestation.

#### **Loss of Biodiversity:**

The extinction of plant and animal species will bring about the development of new drugs which in turn will reduce the adaptability of the ecosystem leading to the loss of genetic resources.

#### **Atmospheric Changes:**

Ozone depletion is responsible for perhaps 300,000 additional cases of skin cancer in a year and 1.7 million cases of cataracts. Global warming may lead to increase in the risk of climatic natural disasters. Productivity impacts may include sea-rise damage to coastal investments, regional changes in agricultural productivity and disruption of the marine food chain.

#### Conclusion:

We believe that the problems associated with both the concept and empirical implementation of the EKC is such that its usefulness is limited to the role of a descriptive statistic. In economic development low stage means that the economic activity is low. In the economy's launching phase the manufacture is developed greatly. The environment worsens in an economic development at higher stage. When economic structure changes the environmental condition starts to improve. Along with the economic development people will pay more attention to the environmental protection. The environmental protection fund will also be increased.

Environmental degradation is not a new thing because it has been happening all over the world for centuries but it is now occurring at a much faster rate that the environment is not able to recover and regenerate. Ever increasing human population is putting a great strain and drain on the earth's limited natural resources (SEEN, 2012). Environment is very indispensable in every aspect of life. All the living beings are influenced by the environment. All the components required for the survival of living organisms are gained through environment containing air, water, soil, food, clean environment etc. The development of living creatures i.e., quality of human life, sector developmental activities, growth, natural resources for the development of the civilization of human beings, even plant and animals are also dependent upon the environment. Therefore, all the

process of entities is done under the environment (Pilisuk, et al 1996).

Environmental pollution has been rapidly increasing day by day. The vehicles, industries and the power stations produce smoke, dust and harmful effects on human beings. Pollution can cause diseases like tuberculosis, cancer, disease of lungs and skin to the people. Water is polluted by sewage, chemicals from industries and factories, garbage and other biodegradable materials that can make the water unfit for drinking. There are different types of water born disease like cholera, typhoid, jaundice, etc. The noise that comes from vehicles and crowded has negative effects on human health causing hypertension problems (Krieger and Higgins, 2002). The soil pollution due to the excessive use of fertilizers causes barrenness of soil which is responsible for lowering plantation-forestation and increases CO<sub>2</sub> emission in large extent. Thus all these kinds of pollution are the factor for unhealthy environment (Dipshikha, 2010).

The lesson derived from an examination of environmental degradation within the context of social integration is that it is essential to avoid fundamentalist policy approaches that isolate and emphasize a single dimension of the social-environmental dynamic. Much can be done at the local level to address the problems of environmental degradation, but local level action will be ineffectual unless it is carried out within a context of supportive institutions at the local, national and global levels, and unless explicit efforts are made to ensure policy coherency at these difficult levels. The strengths and weaknesses of the major types of policy approach to environmental degradation and the complementarities and contradictions between them must be assessed separately in each context. Treating the various dimensions of the environment-development relationship in isolation will obscure as much as it reveals.

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