

## **EFFECTS OF ECONOMIC DEVELOPMENT ON ENVIRONMENTAL DEGRADATION IN INDIA**

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***Abstract:** The paper tries to interlink the issue of economic development and environmental degradation in India for the period 1991-2014. The study finds out that as the economy is growing, indicators of environmental damage starts declining. This is evident from the figure that all the environmental damages have increasing trend till 2011. After 2011, as GDP per capita still increases, the environmental damages starts falling, except net forest depletion. The CO2 emissions, energy depletion, mineral depletion, particulate emission damage and natural resources depletion have shown declining trend as GDP per capita continuously increases.*

### **1.1. INTRODUCTION**

India launched a series of economic plans after independence for rapid expansion in agriculture, industry, transport and other infrastructure, with a view to increase production and employment, to reduce poverty and inequality of incomes and wealth and to establish a socialist society based on equality and justice. The Five Year Plans in India brought additional land under cultivation, expanded irrigation facilities and used increasingly chemical fertilizers and pesticides and high yielding hybrid seeds, etc to bring about increase in agriculture. New industries, new industries have been set up, existing industries have been expanded and technology is being continuously upgraded. Development of agriculture and industry has been accompanied by development and expansion of infrastructure like power, transport and communication, banking and finance, etc. At the same time, because of growing population and high degree of mechanisation, mindless and ruthless exploitation of natural resources, we have degraded our physical environment such as, soil, water, and biotic factors on which we all subsist, and on which our entire agricultural and industrial development depends. Rapid economic development is actually turning India into a vast wasteland. Environmental degradation includes land degradation & soil erosion, deforestation, pollution, destruction of habitat, water logging, overgrazing and ecological degradation, etc.

In the pace of rapid economic development, we have exploited our natural resources at a rapid rate. It has disturbed the ecological balance and the environment has become human

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unfriendly. With the process of development, the quality of environment is deteriorating. If such a process will continue, then in near future, we will not have good quality environment. This will adversely affect the process of economic growth as well as socio-economic life.

Thus, this paper tries to interlink the issue of economic development and environmental degradation in India.

### **INDIA AND ENVIRONMENT**

India's main factors of environmental destruction are due to fast population growth coupled with industrial production and natural resource overuse. Major environmental disasters include land degradation, crop deforestation, deforestation, and loss of biodiversity. Rising energy demand and increased transport practices have led to economic growth and demographic change. India's environmental issues are dominated by water, water and noise pollutants, and water scarcity.

The Indian Agricultural Research Institute (IARI) expects that "more floods, frequent droughts and forest fires, decrease in agricultural and aquacultural productivity, displacement of coastal dwellers by sea level rise and intense tropical cyclones, and the degradation of mangroves may be some of the likely consequences of climate change in Asia". For this reason, India should have particular interest in the reduction of global greenhouse gas emissions in the further course of economic development.

As economic development accelerates with the intensification of agriculture and other resource extraction and the take off of industrialisation, the rates of resource depletion begin to exceed the rates of resource regeneration, and waste generation increases in quantity and toxicity. Structural transitions to information-intensive manufacturing and services at higher stages of production, along with improved understanding of the climate, implementation of environmental laws, improved infrastructure and higher environmental spending, contribute to a steady decrease in environmental deterioration (Panayotou, 1993).

### **ENVIRONMENTAL REGULATIONS IN INDIA**

Healthy climate is Indian Citizens' fundamental freedom. In India, the Ministry of Environment and Forests (MoEF) is the regulatory pinnacle for:-(i) governing and preserving the environment; (ii) formulating the environmental policy framework in the country; (iii) undertaking conservation & survey of flora, fauna, forests and wildlife. The Ministry is also the Nodal body for the UN Environment Program (UNEP). The Ministry's organizational framework includes amounts of Divisions, Directorate, Staff, Branch Agencies, Independent Organizations, and Public Sector Undertakings to enable it accomplish all these aims.

- i) Furthermore, the National Pollution Control Board (CPCB), which is a regulatory body connected to the MoEF, is solely responsible for the prevention and control of industrial pollution. State Climate and State Emission Control Boards are the organizations appointed to conduct this role at state level.
- ii) Central government passed many environmental conservation laws:-

Under the Act, the Central Government shall be allowed to take all such steps as it finds appropriate

or expedient to preserve and enhance the standard of the atmosphere and to avoid, regulate and mitigate pollution. Water Contamination Acts are extensive in their coverage, protecting lakes, inland waters, subterranean waters and seas or coastal waters. Often, these acts include a permit scheme or 'consent' process to avoid and regulate water waste. They usually forbid dumping of polluting matter in lakes, wells and sewers or on property above the requirements set by state boards.

Air Emissions Acts aimed at eliminating, regulating and reducing air pollution.

- iii) Acts relating to the protection of trees, allow for the conservation of forests and matters relevant to them, or ancillary or incidental. Acts relating to the conservation of nature, provide for the protection of wildlife, birds and plants and associated or ancillary matters with a view to maintaining the country's ecological and environmental stability.
- iv) Biological Diversity Acts provide for the protection of biological diversity, the efficient utilization of its elements and the equal and equitable share of profits from the use of biological capital and relevant expertise.
- v) General Liability Insurance Acts allow for public liability insurance (immediate relief) for individuals caused by injuries when processing certain dangerous substances.
- vi) Noise emission laws for regulating noise levels in public places from different causes such as factory operation, building operations, engines, loudspeakers Speakers, public address systems, music systems, car horns and other mechanical instruments impacting human wellbeing and people's psychological well-being.
- vii) The term "hazardous substances" include flammables, explosives, heavy metals such as lead, arsenic and mercury, nuclear and petroleum fuel by-product, dangerous microorganism and scores of synthetic chemical compounds like DDT and dioxins.

### **NEED FOR SUSTAINABLE DEVELOPMENT**

Economic construction without environmental concerns will, in fact, inflict significant environmental harm to the quality of life of present and future generations. While the word 'sustainable growth' has several meanings, it usually applies to long-term non-declining human well-being. The Brundtland Commission of 1987 described sustainable development as meeting point. The basic needs of the vulnerable. Although some observers advocate a "strong sustainability" law requiring separate protection of each group of essential assets, believing they are complements rather than substitutes, while others have argued in defence of "poor sustainability" aimed at preserving the aggregate monetary-value of the total assets, assuming a high degree of substitutability across the different assets.

### **ECONOMIC DEVELOPMENT AND ENVIRONMENTAL DEGRADATION**

GDP and per capita income are the standard indicators for measuring the economic progress of the country. Globally, environmental degradation is manifesting itself through the loss of fertile soils, desertification, decreasing forest cover, reduction of fresh water availability, and an extreme loss of biodiversity. There are significant implications, and it is already evident that economic growth must be environmentally friendly. Natural resource depletion currently challenges

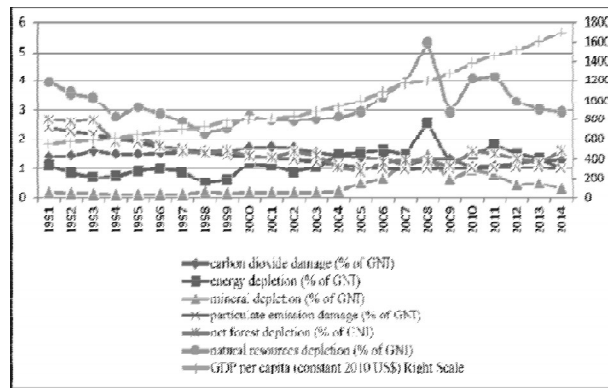
economy's sustained growth, economic output and consuming practices. These practices affect environmental sustainability by overloading natural wastes and toxins. Development's environmental effect helps to mitigate certain gains that can accrue to individuals and economies from rising incomes. There are direct costs to individuals' wellbeing, survival and quality of life related to declining environmental quality, to name a handful. More specifically, environmental degradation will also threaten potential successes and competitiveness if development conditions are adversely affected. Therefore, in traditional accounts, the private and social effects of exploiting natural capital and environmental destruction should be regarded for sustainable growth.

In India, about 1/3rd of the aggregate population survives on less than US\$ 1 per day. Rapid economic growth tends to be detrimental to the environment due to the greater use of natural resources and the higher levels of emission of pollutants. Hence the issue arises of a potential conflict between economic policies and environmental quality. Policy makers in India are facing trade-off between economic growth and environmental protection.

There is a set of essentialities under which it is optimal to sustain both economic growth and the environmental conservation. An industrial sector that does not cause environmental degradation needs to be an engine of economic growth. Optimal pollution regulations become stricter along a sustainable growth path. This increases industry regulations and environmental expenditures and lowers its net marginal productivity of capital (Kumar & Managi, 2009).

It is thought that the fundamental reason behind the depletion and degradation of natural resources is economic activity; thus per capita income may be considered as the best proxy for production and consumption activities. As the economy is growing, indicators of environmental damage starts declining. This is evident from the figure that all the environmental damages have increasing trend till 2011. After 2011, as GDP per capita still increases, the environmental damages starts falling, except net forest depletion. The CO2 emissions and GDP per capita relationship exhibit the famous Environment Kuznets Curve (EKC). In the initial stage, the environmental damage was increasing with GDP per capita and as per capita level reached sufficient level then environmental damage started to fall. This is because with higher levels of income people became more concerned about environment and health. This propelled them to take care of environment.

**Figure 1: Environmental Degradation in India**



Source: World Development Indicators, 2015

## CONCLUSION

In the pace of rapid economic development, we have exploited our natural resources at a rapid rate. It has disturbed the ecological balance and the environment has become human unfriendly. With the process of development, the quality of environment is deteriorating. If such a process will continue, then in near future, we will not have good quality environment. This will adversely affect the process of economic growth as well as socio-economic life. However, the economy sustains growth on an optimal path accompanied by environmental conservation. If the human capital and knowledge accumulate, long-term economic growth can be sustainable. This is evident from the figure that all the environmental damages have increasing trend till 2011. After 2011, as GDP per capita still increases, the environmental damages starts falling, except net forest depletion. The CO<sub>2</sub> emissions and GDP per capita relationship exhibit the famous Environment Kuznets Curve (EKC).

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