

Conflict between Economic Growth and Environmental Sustainability in India(Post Reform Period)

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Abstract

Linking economic growth to environmental sustainability is a pressing challenge in today's era in India. The conflict between economic growth and environment is severer today than ever before, particularly in developing countries like India with fast growing population and mass poverty. The relationship between economic growth and the environmental sustainability is always controversial. In India, Economic activities such as production and consumption have led to environmental degradation over the last few years. In our country we are trying to increase economic growth to improve living standard of our people and on the other hand, environmental problems are becoming complicated due to excessive use of resources.

In economics, the Environmental Kuznets Curve is used to graph the idea that as an economy develops, market forces begin to increase and economic inequality decreases. More specifically that as the economy grows, initially the environment suffers but eventually the relationship between the environment and the society improves. The Environmental Kuznets Curve is represented by an inverted U curve

Keywords: Conflict, Economic Growth, Environmental Sustainability

Introduction:

Worldwide environmental degradation makes people, expert and policy makers worried about the issue of the link between economic growth and environmental degradation. It is generally believed that a high level of environmental performance is associated with a high level of economic growth. Economic growth has produced many benefits raising standards of living and improving quality of life across the world. It has also resulted in the reduction of natural resources and the degradation of ecosystems. All economic activities are affected by natural and environmental resources. Activities such as extraction, processing, manufacture, transport, consumption and disposal change the stock of natural resources, add stress to the environmental systems and introduce wastes to environmental media. Moreover, economic activities today affect the stock of natural resources available for the future and have inter-temporal welfare effects. From this perspective, the productivity of an economic system depends in part on the supply and quality of natural and environmental resources.

There has been much debate over whether or not it is possible to achieve economic growth without unsustainably degrading the environment, and a growing realization that economic growth at the current rate of reduction and degradation of environmental assets cannot continue indefinitely. For example, the increase in CO₂ levels in the atmosphere as a result of human activity means that the world is already locked into some climate change, and faces a major challenge to keep global temperature rises to below two degrees.

Objectives of the paper:

- 1) To study the relationship between economic growth and environmental sustainability in India.
- 2) Another objective is to see the trends of economic growth and environmental sustainability performance.
- 3) To examine the government policies to establish balance between economic growth and environmental sustainability in India.
- 4) To suggest various measures to control environmental degradation

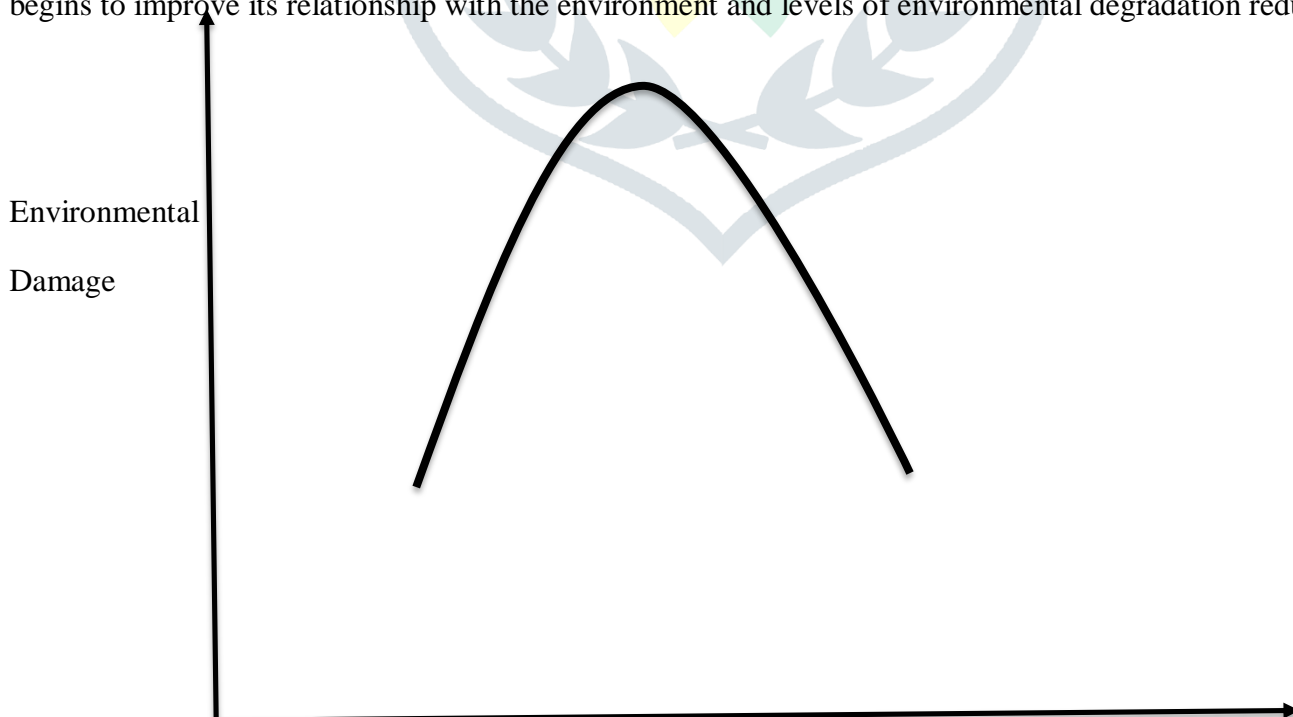
Hypothesis:

- 1) There is negative correlation between economic growth and environmental improvement.
- 2) Environmental degradation is happening due to increase in economic growth.

Trends between Economic growth and Environmental Sustainability

Environmental Kuznets curve Model

The **Environmental Kuznets Curve (EKC)** is often used to describe the relationship between economic growth and environmental quality. A generation ago, the environmental Kuznets curve suggests that economic development initially leads to deterioration in the environment, but after a certain level of economic growth, a society begins to improve its relationship with the environment and levels of environmental degradation reduce.



Per Capita Income

The shape of the curve can be explained as follows: As GDP per capita rises, so does environmental degradation. However, beyond a certain point, increases in GDP per capita lead to reductions in environmental damage.

Kuznets based his hypothesis on per capita income. However, there is controversy among the economists about the turning point the level of per capita income of the countries when inequality or environmental pollution starts decreasing. This ambiguity raises many questions. The empirical results are roughly consistent with a Kuznets curve for conventional air pollutants such as suspended particulates, but the results for water pollution are mixed. Moreover, the hypothetical studies on emission (CO₂) confront Kuznets' Model on the ground that as per capita income increases the vehicular emission also increases because people purchase or use maximum personal cars when their income increases. Another empirical study that decompose total industrial pollution into three proximate

CO₂ emissions (metric tons per capita)

Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring. CO₂ Emissions is being doubled due to fast-increasing economic activities, such as manufacturing and construction, and transportation.

Year	CO ₂ Emissions
1990	0.712
1995	0.845
2000	0.98
2005	1.069
2010	1.397
2011	1.477
2012	1.598
2013	1.591
2014	1.73

Source: <https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?view=chart>

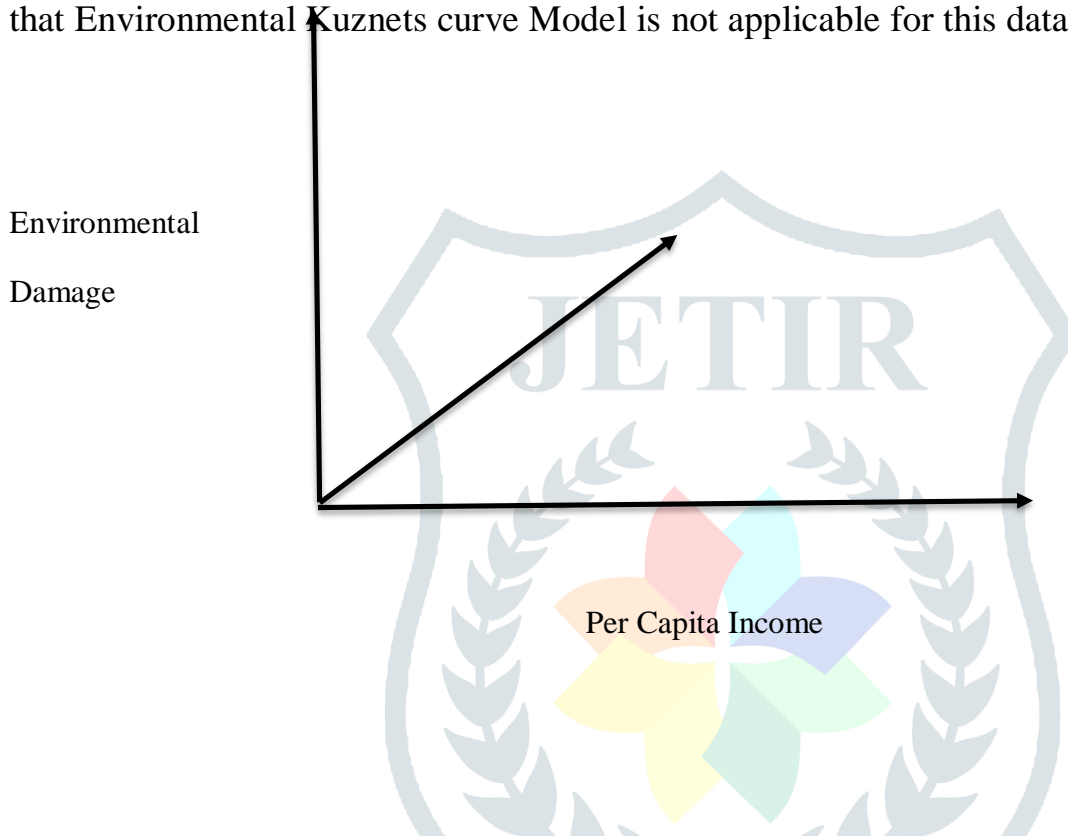
Growth in Per Capita Income (PCI)

YEAR	PCI
1990	380
1995	360
2000	440
2005	700
2010	1220
2011	1380
2012	1480

2013	1520
2014	1560

Source: <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=IN&view=chart>

When you insert the above value in the following diagram we will get a line which has positive slop indicating that there is positive link between growth in PCI and CO₂ emission. When we through light on this data collected from in Indian economy we will come to know that Environmental Kuznets curve Model is not applicable for this data.



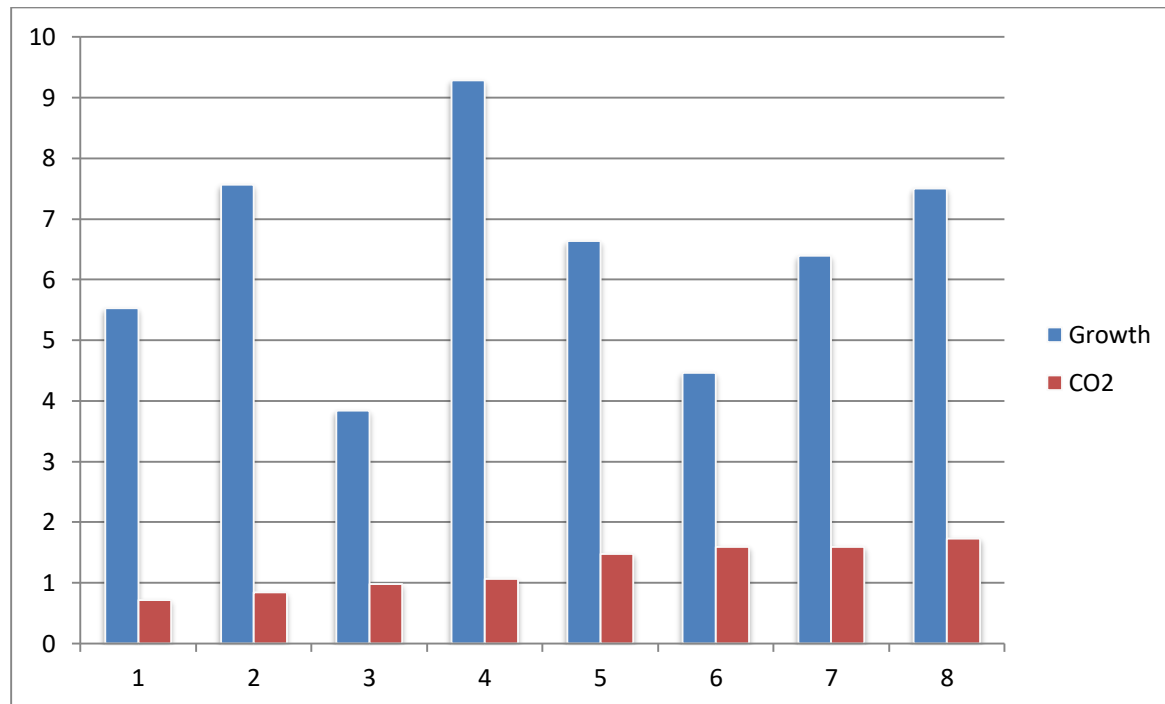
Another theory questions the existence of turning points, and considers the possibility that environmental damage continues to increase as economies grow (see figure 2.2b)⁴¹. This is similar to the new toxics view,⁴² where emissions of existing pollutants are decreasing with further economic growth, but the new pollutants substituting for them increase.

ANNUAL GROWTH RATE

YEAR	INDIA
1990	5.53
1995	7.57
2000	3.84
2005	9.28
2010	10.26
2011	6.64

2012	4.46
2013	6.39
2014	7.50
2015	8.01
2016	7.12

Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN&view=chart>



It is depicted in the above diagram and table that there is increase trends in growth rate and CO₂ emission in India it mean that economic growth did not succeed to overcome the problems of environmental degradation in india

Recommendations:

1) Recycle:

Recycling is one the best things you can do to promote sustainability. Recycling and buying products made with recycled materials has many far reaching benefits. By cleaning up your house and recycling your old household trash, you instantly get a cleaner house and some extra cash. Buying products with recycled materials completes the loop. Recycling reduces pressure on raw materials, reduces mining, and the fuel and other costs associated with extracting, transporting and processing minerals. You also save valuable landfill space

2) Grow your own garden:

The food you purchase from the market goes through a process where food is grown, transported, and stored before it can reach the shelves of a supermarket. The food that reaches the shelves of a grocery store is not always grown through sustainable methods. You can help reduce your carbon footprint and reduce negative environmental impacts by growing your own food in your backyard. Planting vegetables in your backyard garden has many benefits. You can grow without using any chemicals or pesticides, recycle your kitchen waste as fertilizer, and enjoy freshly grown vegetables from your own

backyard. It's a great way to enjoy the outdoors, get some exercise, and also bring your family together

3) **Walk, bike or car pool to work:**

The less personal use of your car you do, the more you and the environment will benefit. Sustainable living not only promotes sustainability by reducing pollution and the consumption of natural resource; walking or biking to work will also improve your health and reduce the strain on public health resources.

4) **Change your washing habits:**

This one is important to attain sustainable living. We wash everything too much. Not only has science discovered that our over emphasis on being clean has reduced our natural immune resistance to diseases (which require exposure to bacteria to develop), but each person wastes tremendous amounts of water when they bathe, wash dishes or do laundry. Practice taking short and times showers, washing dishes in a sink of water and then rinsing them and cutting down on the amount of laundry that you do

5) Therefore, when we think in terms of economic growth, we realize that growth is the major economic goal of many nations. Thus, as a goal, a Nation that can achieve economic growth will be better suited to meet the wants of individuals and resolve socio-economic problems such as poverty. Thereby, ensuring the well-being of the economy and improving standard of living, by raising incomes/ providing jobs. In addition, economic growth can possibly even protect the environment by the creation of parks, reserves, and implementation of key policies. Consequently, some economists have argued that economic growth will eventually lead to an improvement in the environment.

6) In other words, as people become wealthier, they have more time to think about other things than their survival; and with this wealth can influence governments to improve the environment. For example, it is only after industrialized countries achieved their economic objectives that they began to focus on the environmental problems they left in wake on their drive for growth

Bibliography:

- 1) Serageldin, Ismail et.al (editor) (1994), Making Development Sustainable: from Concepts to Action. Environmentally Sustainable Development Occasional Paper Series No. 2. Washington, D.C: The World Bank)
- 2) (Kuznets S., (1955), "Economic growth and income inequality," American Economic Review, 49. 1-28)
- 3) Millimet D. L., List J. A. and T. Stengos, (2003), "The Environmental Kuznets Curve: Real Progress or Misspecified Models?," The Review of Economics and Statistics, MIT Press,. 85(4), 1038-1047.)
- 4) <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=IN&view=chart>
- 5) <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN&view=chart>
- 6) <https://www.indianeconomy.net/splclassroom/what-is-environmental-kuznets-curve/>
- 7) <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.586.3088&rep=rep1&type=pdf>
- 8) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69195/pb13390-economic-growth-100305.pdf
- 9) <http://environmentalprofessionalsnetwork.com/10-things-you-should-do-to-promote-sustainability/>
- 10) <https://www.icas.com/technical-resources/10-step-guide-to-environmental-sustainability>
- 11) http://siteresources.worldbank.org/EXTENVIRONMENT/Resources/enviro_eval.pdf