
Environment and Economic Development in India: Sustainable Development

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Abstract

India is one of the fastest growing economies in the world. It has recorded the highest growth rates in the mid 2000's. But this increase in growth rate fails to reflect the true cost of development. Due to neglect of environmental issues, India has to incur huge losses in terms of money and depletion of resources. Polluting the atmosphere especially in terms of air and water quality has been one of the most important negative externality of industrial development. Even the gains resulting from success of ever increasing food production over the span of last four decades have not without their consequent environmental and social cost. Environmental degradation often become irreversible and impose damaging costs on the economy resulting in output and human losses and loss of labour productivity from ill health and loss of output. There is need for adoption of more practical measures to promote development which is sustainable in the long run. For this we all have to behave like responsible citizen.

Introduction

Development is about improving the well being of people. Raising living standards and improving education, health and equality of opportunity are all essential components of economic development. Economic development seeks increase in the rate of national income and achieving an equitable distribution of income. Viewed in a broad spectrum, growth in Indian economy has been registering an average rate of 7/8% per year in recent years and per capita income is increasing at rate of about 7%. We have become self sufficient in food grain production and industry is growing at the rate of 8-9%. India recorded the highest growth rates in the mid 2000s and is one of the fastest growing economies in the world. However the increase in national income and growth rate fails to reflect the true cost of development. GDP gives distorted picture.

Objective of Paper

1. To analyze the neglect of environment issues due to industrial and agriculture development.
2. To assess the cost of neglect of environment on Indian economy.
3. To find initiatives that can be taken for sustainable development.

Research Methodology

The paper is based on the information retrieved from internet and expert opinions on the same subject matter.

Neglect of Environment Issues

Neglect of environmental issues has made India incur huge losses in term of money and depletion of resources.

I.Environmental degradation due to industrial development

Development in economic terminology is often associated with industrialization and a spurt in the manufacturing sector. Manufacturing sector in India has shown an impressive growth rate of about 7.4% over the past 10 years. India has made progress in field of textiles, pharmaceuticals, basic chemicals, electronics and information technology etc. Industrial development has contributed significantly to economic growth in India though not without an environmental price. Polluting the atmosphere especially in terms of air and water quality has been one of the most important negative externality of industrial development.

- With coal accounting for over half of total primary energy consumption, this industrial development has been fueled by a relatively high polluting energy source that emits high amount of carbon and green house gasses. Major polluting industries and automobiles emit tones of pollutants every day. India has been ranked as seventh most environmentally hazards country in the word.
- Although industrial sector only accounts for 3% of the annual water withdrawals in India, its contributions to water pollution particularly in urban area is considerable. Waste water generation from this sector has been estimated to be 55000 million m³ per day of which 68.5 million m³ are dumped directly into local rivers and streams. Waste water from industrial activities is often contaminated with highly toxic organic and inorganic substances some of which are persistent pollutants and remain in environment for many years.
- Over 50% urban organic load in some cities originate from industrial effluents. Further heavy metal contamination from thermal power, tannery and mining activities has also occurred.
- Fly ash, phosphogypsum, iron and steel slag's are main forms of industrial solid waste generation in India. There are 36145 hazardous waste generating industries in the country producing 6.2MT hazardous waste every year, brought by expansion of chemical base industries. We are generating waste beyond disposal capacity.

Unplanned and haphazard industrialization has substantially increased the risk to the environment.

II. Environmental degradation due to agricultural development

During the hey days of green revolution, India achieved spectacular increase in food crop and helped her out of food trap. But the gains resulting from the success of ever increasing food production over the span of last four decades have not without their consequent environmental and social cost. Over intensification of agriculture over the years has led to

- Water depletion: - Water table has gone down. Now we have to pull water from 300-400 feet depth which was about 40-50 feet depth.
- Micronutrient deficiency: - It is estimated that India loses about 40 million tones of major soil nutrient annually.
- Reduced soil fertility.

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- Non Judicious use of farm chemicals and problems of pesticides residues.
 - Soil erosion.
 - Atmosphere and water pollution.
 - 35 million tones of rice and wheat residues is produced annually and burning is a common practice librating around 20 million tones of CO₂.
 - **Land degradation:-** In India an estimated 146.82 m ha area suffer from various forms of land degradation due to water erosion, wind erosion, water logging. The various degrees and types of degradation stem mainly from unsustainable use and inappropriate land management practices like
 - Deforestation
 - Cutting beyond permissible limits
 - Unsustainable fuel wood and fodder extraction
 - Encroachment into forest lands, forest fires and over grazing
 - Non adoption of adequate soil conservation measures.
 - Improper crop rotation
 - Indiscriminate use of agro chemicals such as fertilizers and pesticides.
 - Improper planning and management of irrigation system.
 - Extraction of ground water in excess of recharge capacity.

These practices have left once fertile regions barren. The decline in water availability combined with reducing quality and productivity of land (and its ability of perform various functions) poses challenge to the availability of food & biomass in the country.

Cost of Neglect

Environmental degradation often tends to become irreversible and impose damaging costs on the economy resulting in output and human losses and loss of labour productivity from ill health and loss of crop output. In India, we are losing more from environmental degradation than gaining from economic development. There has been increased health problems and losses to economy.

- Overall degradation of fragile agro ecosystem has led to high cost of production and diminishing economic returns from agricultural practices which are affecting socio economic conditions of farmers. Suicide among farming community has become common. According to National Crime Records Bureau Reports thousands of farmers are committing suicide every year.
- **Loss of Biodiversity:-** Due to heavy use of chemical pesticides, insecticides and fertilizers and due to deforestation, we have lost many birds and friendly insects and this is a big loss in the long run. High level of pollutants are causing disappear of many plants and animals. The marine habitats have been severely affected.
- Untreated water from industrial activities, urban settlements and run off from agricultural land carrying chemicals are primarily responsible for deterioration of water quality and the contamination of lakes and river and ground water aquifers

and causing enormous damages to economy. The water quality of surface and ground water has deteriorated significantly over the last two decades. The water quality of most of rivers in India is not even fit for bathing, recreation and other social uses that India has been using for thousands of years.

- Due to water pollution, people are suffering from number of diseases like typhoid, cholera, bacterial dysentery, malaria, hookworm, infectious hepatitis dengue, lymphatic filariasis, dengue haemorrhagic fever(DHF) etc. Even skin infections are common.
- A study done by Punjab Pollution Control Board and PGIMR Chandigarh has indicated the rise in Cancer cases in cotton belt of Punjab. Study found both tap and ground water laced with carcinogenic chemicals. The situation is so grim that village after village is reporting cancer, reproductive disorder, birth of mentally retarded children and other pesticide related diseases.
- Air pollution leads to respiratory diseases, chest pain, congestion etc. In India air pollution is believed to cause 5,27,700 fatalities a year. Bangalore holds the title of being asthma capital of country. Studies estimates that 10% of Bangalore's 60 lakh population and over 50% of children below 18 years suffer from air pollution related ailments.

Broadly speaking damage caused by pollution in India is estimated to cost \$14 billion annually amounting to close to 4.5% to 6% GDP

SUSTAINABLE DEVELOPMENT

The fact that environmental damage hurts people both today and in future, provides additional ground for rethinking our measurement of progress. Something is wrong with our planning. Hectic endeavors to keep up the momentum of economic growth had kept environmental considerations as secondary objectives in policy making.

We must know environment and development are not separable challenges. They are inexorable linked. Development cannot subsist upon a deteriorating environmental resources base and environment cannot be protected when growth leaves out of account, the cost of environmental destruction. These problems cannot be treated by fragmented institutions and policies. They are linked in a complex system of cause and effect. There is need for adoption of more practical measures to promote development which is sustainable in long run. So there is need of sustainable development.

Sustainable development as defined by Brundtland Report is the development that meets the needs of today without compromising the ability of future generation to meet their own needs. This definition requires that future generation should get as much resources as we have, to meet their needs.

According to Partha Das Gupta , "Economic development is sustainable if relative to its population, a society's productive base does not sink." The key to growing sustainability is not to produce less but to produce differently.

It means economic development should not be allowed to take place at the cost of ecology or by causing widespread environmental destruction and violation, at the same time the necessity to preserve ecology and environment should not hamper economic and other

developments. Both development and environment must go hand in hand, in other words, there should not be development at the cost of environment and vice versa, but there should be development while taking due care and ensuring the protection of environment.

The government of India, has taken several initiative in terms of policies and programmes to implement its commitment to the principles and goals of sustainable development.

- Many acts has been passed Wild Life (Protection) Act 1972, Forest conservation Act, 1980, Water (Prevention and Control of Pollution Act) 1981, Air (Prevention and Control of Pollution Act) 1981, Motor Vehicle Act (1988), Bio Medical waste (Handling and management) Act, 1995, Bio diversity Act (2002), National green Tribunal Act 2010, Forest Right Act 2006.
- Policy initiate to improve environment like National Conservation Strategy and Policy Statement for Environment and Development 1992, Policy Statement for Pollution 1992 and National Forest Policy 1988, National Environment policy 2006.
- Notification and implementation of emission and effluent standards of air, water and noise level.
- Identification and action plans for 17 categories of major polluting industries.
- Identification of 24 critically polluted areas for pollution abatement and improving environment.
- Action plans for 141 polluted river stretches to improve quality of river water
- Identification of clean technologies for large and small industries.
- Setting up of common effluent treatment plants for cluster of SSI.
- Provision of fiscal incentives for installation of pollution control equipment and also for shifting of industries from congested area.
- Initiation of environmental epidemiological studies in seven critically polluted areas to study the impact of polluted environment on health. Despite the above mentioned legislation and policy measures adopted by government, pollution remains a major concern in India. The very poor quality of air and water in many parts of the country suggests that these policies have not worked well. The government's capacity and willingness to enforce the laws has often been wanting. It must be clear in our mind that there is little point in passing laws or making agreements, if these cannot be properly implemented or enforced.

When it comes to protecting environment, we must understand that prevention is much cheaper and effective than cure.

Initiatives to Be Taken To Achieve Sustainable Development

The more practical measures that can be adopted to promote sustainable development are

- Joint planning, transparency and co-ordination in implementation of law is required. There should be strong penalties for offenders.

- Environmental awareness - Environmental problems are global therefore, every individual matters and all the sections of society need to be conscious about their surroundings. Environment education can play very important role .
- 3-R approach- Reduce, Reuse, Recycle of waste helps in achieving sustainable development.
- Thoughtful and thrift use of resources - means consumption should not exceed regeneration.
- Use of eco-friendly technologies - the technology used to be adaptable, eco friendly, resource efficient and socially acceptable.
- Eco friendly life style and working method-every individual has a role to play. We all have to behave like responsible citizen. It is our duty to preserve our environment. Each one can contribute by

-using public transport/car pooling; check emission levels.

-Saving power water

-using solar heater, cookers and solar cells

-carrying jute/cloth bags instead of plastic bags

-growing more trees.

All these things will bring a good life for an individual, a society, a state and a nation. Hence a more sustainable future.

Conclusion

Environment degradation is irreversible. Neglect of environment issues are incurring huge losses to the economy. It is need of the hour that we all must realize that and until and unless we will save our environment ,the result of economic development will not be fruitful. Government alone cannot do anything. So we all have to behave like responsible citizen to save environment.

In other words of G.H. Brundtland "We must consider our planet to be on loan from our children rather than being a gift from our ancestors".

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