

Environmental Degradation and it's Solving Measures in India

Sudarsana Sarkar

Assistant Teacher, Dhak Dhole High School, Kushmandi, India

Abstract: Environment and development this term is closely related. Any country's growth and development depend its good environment. Environment problems emerge by polluting environment which results in serious health hazard and environment degradation. Environment is polluted mainly in four ways even though many reasons are responsible for polluted environment which are water, air, soil and sound pollution respectively

Keywords: environmental resources preservation and degradation.

1. Introduction

Environment problems can undermine the goals of development in two ways. Firstly to maintain environment equality safe & plentiful water and healthy air is essential part of the improvement in welfare that development attempts to bring. If the benefits from rising incomes are offset by the cost imposed on health and quality of life by pollution, this cannot be called development. Secondly, environment damage can undermine future productivity. Soils that are degraded, aquifers that are depleted and ecosystems that are destroyed in the name of raising incomes today can jeopardize the prospects for earning tomorrow. Therefore, environmental protection should form a part of any comprehensive programme of industrial development. So sustainable development is necessary for environmental protection. Sustainable development seeks to meet the needs and aspirations of the present generation without comprising the ability of future generations to meet their own needs. Sustainable Development can be achieved only if the environment is conserved and improved. Moreover, a development path is sustainable if and only if the stock of overall capital assets remains constant or rises over time. Therefore, government should take some form of environmental accounting into its policy decisions. The preservation or loss of valuable environmental resources should be included into estimates of economic growth and human wellbeing. The policymakers may set a goal of no net loss of environmental assets. If an environmental resource is damaged or depleted in one area, a resource of equal or greater value should be regenerated elsewhere. This research paper tries to pinpoint the problem of environmental degradation and tries to find out the ways for solving the problems.

2. Objective of the study

The objectives of the study are,

- To study about necessity of environmental protection and sustainable development.
- To know about the reasons about environmental pollution and degradation and to suggest the measures for solving environment problem.
- To put forward an ideal model for developing environment and compare it with total environmental pollution in India.
- To put forward recommendations for removing environment pollution.

3. Methodology of the study

The data will be collected from primary and secondary source in India. The primary data will be collected with the help of interview and survey method. The primary data will be collected through extensive survey in different big towns, cities and villages. The primary data have been collected mostly by direct contact method from the different people in various urban & rural areas and environment polluting organizations or agencies. The questionnaires and interview schedules have been taken to carry out the whole investigation. For evaluating the objectives of the study the secondary data will be collected from the various sources such as books, journals, reports, websites, university libraries, planning commission, govt. publications (central and state). state & district wise statistical office etc.

4. Statement of the problem

The main health and productivity consequences of environmental damage are as follows,

A. Water pollution

Water quality has continued to deteriorate world over because of a number of factors. Among them the most important factor is industrial waste. As industry and mining are expanding, rivers become contaminated with toxic chemicals with heavy metals such as lead and mercury. The capacity of rivers to support aquatic life is decreased. Not only this, even groundwater has been contaminated as result of seepage from the improper use and disposal of heavy metals, synthetic chemicals and other hazardous wastes. Sometimes, industrial

effluents are discharged directly into groundwater. The main health impact of unclean water and poor hygiene are waterborne diseases like diarrheal, typhoid and paratyphoid.

B. Outdoor urban air pollution

Outdoor urban air pollution has significant negative impacts on public health and results in premature deaths, chronic bronchitis, and respiratory disorders. Extra-fine particles smaller than 2.5 micrometers or PM_{2.5} can go further into lungs and airways and carry more dangerous toxins, such as heavy metals. Other pollutants of air are sulphurdioxide and nitrogen oxide, carbondioxide, carbon monoxide. The gar engines and from vehicular engines and factories, irritates the eyes, nose, and throat, causes shortness of breath and aggravates respiratory illnesses, such as asthma, especially in young children. The mean estimated annual cost of PM urban air pollution total is Rs 1,103 billion in 2009 which is 29% of total cost of damage.

C. Indoor air pollution

Many people die each year globally due to indoor smoke from the use of traditional fuels in the home, incomplete combustion of fuels such as wood, agricultural residues, animal dung, and charcoal and in some countries, coal. The strongest link between indoor smoke and health care for lower respiratory infections, chronic obstructive pulmonary disease and for cancer of the respiratory system.

D. Solid and hazardous wastes

Inadequate solid waste collection and unmanaged disposal, open dumping and uncontrolled land filling presently create a number of problems. Uncontrolled refuse dumped in public areas or into waterways contributes to the spread of disease. In low income country like India the lack sanitation facilities, trash heaps become mixed with human excreta. Municipal solid wastes sites often receive industrial and hazardous wastes, which may then seep into water supplied and those wastes also pollutes groundwater level.

E. Soil degradation

Soil degradation or soil erosion denudes the agricultural productivity adversely and herms productivity by depositing silt in dams, irrigation system and river transport channels and by damaging FISHERS. Salinization and water logging are other serious forms of soil degradation. They reduce the productivity of agricultural lands and if a threshold salinity level is exceeded the land becomes unfit for cultivation.

F. Rangeland degradation

The main causes of rangeland degradation in India are irrational land use management practices leading to denudation of vegetation from rangelands which exacerbated by intermittent droughts, has resulted in many pockets of desertification.

G. Deforestation

Recently deforestation are increasing continuously for clearing forests for extending agriculture, obtaining firewood, industrial wood, timber and construction materials. Forests are of immense value in protecting the environment. They protect and enrich soils, provide natural regulation of the hydrologic cycle, affect local and regional climate through evaporation, influence watershed flows of surface and groundwater and help to stabilize the global climate by sequestering carbon as they grow. So preserving the ecological and environmental balance is necessary in maintaining the biodiversity and ecosystems. Deforestation mainly occurs in hilly areas for destructive agricultural practices and for widespread practice of shifting cultivation.

H. Loss of bio-diversity

Biodiversity –a composite of genetic information, species, and ecosystems provides material wealth in the form of food, fibre, medicine and inputs into industrial process. It supplies the raw materials that may assist human communities to adopt to future and unforeseen environmental stresses. In India under rapidly growing population and unplanned development of natural environment the habitats of our species are being lost or modified which has resulted in the disappearance of certain species and ecosystems. In India 103 species of mammals and birds have been listed as endangered under the wildlife. During the last century the planet has lost 50% of its wetlands, 40% of its forests and 35% of its mangroves. About 60% of global ecosystem services have been degraded in just 50 years.

I. Atmospheric changes

Indiscriminate industrialization, urbanization and environmental pollution are bringing about certain atmospheric changes which cause uncertain and irreversible hazards to future generations. They are two types –i) Greenhouse effect and global warming: Some greenhouse gases like water vapor, carbon dioxide, methane, ozone and nitrous oxide etc. warm earth's surface by impeding the escape of infracted energy onto space. The warming effect created by the natural's levels of these gases is the natural greenhouse effect. The gases released from human activities have greatly amplified the natural greenhouse effect. The carbon dioxide concentration has increased significantly due to industrialization. The combustion of coal, oil and natural gas now contributes about 80% of the carbon dioxide emitted annually with land use changes accounting for the remaining 20%. The heat trapping caused by carbon dioxide, methane and nitrous oxide resulting from fossil fuel combustion, farming and industrial activities and land use changes occur in considerable global warming which cause the melting of ice-sheets, rise in sea levels, increase in floods, droughts and forest fires in many regions, spread of infections and diarrheal diseases as a result of extreme heat, extinction of a quarter of all human species, declines in food production and many adverse impacts on environment and ecology.

J. Ozone depletion

It is mainly the result of increasing atmospheric concentrations of chlorine originating from CFCs (Chloro fluoro carbons). The CFC gas molecules therefore rise very high up in the atmosphere to cause substantive damage to deplete ozone layer which results in an increase in solar ultraviolet radiation received at earth's surface causing skin cancers, an increase in eye damage, adverse impact on plant productivity, forestry and natural ecosystem including disruption of marine or aquatic food chain. Moreover the CFSs indiscriminately used by certain industries increase the amount.

5. Recommendations and undertaken government policies in India

In the year 1972 is a landmark year in the history of legislative action in India. In the wake of the Stockholm Conference, the National Committee on Environment Planning and Coordination was set up in 1972. This was the first institutional arrangement for formally addressing environmental concerns. The NCEPC was entrusted with the responsibility of reviewing environmental policies and programmes. It was only in 1976 that environmental protection was incorporated in the constitution by the constitution Act of 1976. The article 48A of Directive Principles of state policy in 1976 states that the state shall endeavor to protect and improve the environment. To control the emerging environment problems the Department of Environment was established in 1980 followed by setting up of a full-fledged Ministry of Environment and Forest (MOEF) in 1985. This ministry is currently the apex body for making policy decisions and initiating supportive legislation in respect of environmental matters. A comprehensive National Environment Policy was announced in May 2006.

A. Improving water quality

The first major environmental legislation was the water prevention and control of pollution act of 1974. It led to the establishment of State pollution Control Boards to set and enforce effluent standards. To coordinate the activity of these boards and to advise the central government a central pollution control board was also set up. It has legal power to initiate legal action. For meeting the expenses of the boards the water cess Act was enacted in 1977 which required industries to pay a cess on their water consumption. A National River Conservation Plan was initiated in late 1996. The NRCP presently covers 38 rivers spread over 178 towns in 20 states with projects sanctioned at a total cost of RS6,311 crore. A scheme of common effluent treatment plants was initiated in June 1990 for small-scale industries. The National Water Policy 2002 lays emphasis on integrated water resources development and management for optimal and sustainable utilization of the available surface and groundwater, better water conservation and demand management.

B. Improving air quality

The Air Preventing and control of pollution Act, 1981 is the main legislation for regulating air quality through the pollution control board in the states. The Central Pollution Control Board has identified 2301 medium and large polluting industrial units under 17 highly polluting categories and pollution control devices are being provided to them. CPCB determine the status and trend in air quality. Assess health hazard and damage to materials. As the legal process was time consuming and the polluters got away with minor penalties. As a result pollution continued to increase manifold and its nature became more complex.

C. Environment protection

The Bhopal Gas Tragedy of December 3, 1984 involving death of over 3,500 people and injuring another 2 lakh people brought to the fore the complete inadequacy of existing laws and their poor enforcement. A comprehensive Environment Protection Act was enacted in 1986 for protecting, controlling and abating environment pollution.

D. Hazardous waste and biomedical waste management

The government enacted the Hazardous Waste Management and Handling Rules, 1989 and also constituted Hazardous Substances Management Division for environmentally sound management of hazardous wastes chemicals, plastics and municipal solid wastes under the environment Act 1986 and promoting activities by giving financial support. Municipal Solid Waste (Management and Handling) Rules were introduced in 2000 and Biomedical Waste (Management and Handling) Rules were laid down in 1998 and amended in 2000 and 2003.

E. Environmental impact assessment

It involves evaluation of a project or a program which is likely to cause damage to the environment. The process of EIA was started in 1978-79 with river valley projects has now extended to 39 activities in eight categories. The major statutory regulations governing EIA are EIA Notification of 2006 and Coastal Regulation Zone (CRZ) Notification, 1991. Frequent changes have resulted in adhocism and confusion in the country's environment policy regulation. CRZ was a bold step to try safeguard the ecologically sensitive coastal areas of the country. A number of ports, industries, sports and tourism complexes and other projects have come upon India's coasts.

F. Joint forest management and afforestation

The Joint Forest Management regime was initiated with the circular of the MOEF on June 1, 1990 on people's involvement in forest conservation and management. At present 1,06,479 such committees are functioning in 28 States covering 22.02 million hectares of forests. Integrated Forest Protection Scheme was implemented during the Tenth Plan and continued during the Eleventh Plan. To promote afforestation, tree planting, ecological restoration and eco-development activities in the country, the National Forestry and Eco-development Board

(NANB) was set up in August, 1992.

G. Biodiversity and taxonomy

The Biological Diversity Act, 2002 and Rules, 2004 provide for constitution of State Boards and Management Committees for conservation, documentation and sustainable utilization of bio-diversity and for building up capacities of these bodies. Taxonomy is the science which helps in the exploration, identification, and description of living organisms. A sound taxonomic base is a prerequisite for environmental assessment, ecological research, effective conservation, management. The implementation of the above rules calls for an adequate number of trained taxonomists.

H. Assistance to botanic gardens

The scheme on Assistance to Botanic Gardens and centers for ex-situ conservation was initiated in 1992 to augment ex-situ conservation and propagation of rare and threatened indigenous plants of the country serve as a 'Centre of Excellence' for research and training.

I. Wildlife conservation

The MoEF provides necessary technical and financial support under various Centrally Sponsored Schemes which include Schemes for Development of National Parks and Sanctuaries, Project Elephant, the National Tiger Conservation Authority (NTCA). The 'Project Tiger' was launched in April 1973 after an amendment of the Wild Life (Protection) Act, 1972 With the objective of protecting the population of tigers. The Government of India set up the Central Zoo Authority (CZA) in the year 1992 through an amendment in the Wild Life (Protection) Act, 1972. 9) Biosphere Reserves: This programme was started in 1986 with UNESCO (Management and Biosphere) Support for integrating social, cultural, and ecological values of ecologically rich landscapes. The primary focus was on monitoring and designing conservation strategies.

J. Mountain ecosystems

The MOEF establish the G.B. Plant Institute of Himalayan Environment and Development (GBPIHED) in 1988 as an autonomous institute with a mandate of achieving sustainable development and environmental conservation in the Himalayan Region (IMR).

K. Conservation of mangroves and coral reefs

In marine ecosystem, mangroves and coral reefs are quite important. The coral reefs protect the coastal areas from sea erosion while mangroves protect us from cyclone damage. Sunderbans has this forests. The Coastal Regulation Zone Notification (1991) under the Environment (protection) Act, 1986 recognizes the mangroves and coral reefs areas as ecologically sensitive and categorizes them as CRZ-I which implies that these areas are accorded protection of highest order.

L. Environmental research

MOEF has been supporting research in environment since 1985 through a Central Plan Scheme for better environmental management.

M. Environmental awareness and education

The MOEF is implementing a scheme "Environmental Education, Awareness and Training" for enhancing the understanding of people about the necessity of environment protection.

N. Environmental information system

The MoEF has set up an Environmental Information System as a plan program.

O. Disaster Management

An important initiative has been the enacting of the Disaster Management Act, 2005 for the implementation of disaster management plans and ensuring various measures. The National Disaster Management Authority has been set up in terms of the Act.

P. Climate Change:

The National Environment Policy was enacted in 2006 and India has participated actively in all global negotiations to limit environmental damage for climate changes.

6. Conclusion

Environment is valuable assets of our country. The country cannot go ahead and prosper with polluted environment. A country's future and development depends on its good environment. Environmental pollution is a part of environmental degradation. If the environment is depredated and the standard of environment become low, it is impossible for the people to live. The possibility of diseases increases and naturally death will be common picture of the country. So environment should be protected and pollution should be prevented. For this not only the government's initiative is enough but also but also social people's active participation and their awareness about environment is necessary for improvement of the condition.

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