SUSTAINABLE DEVELOPMENT AND ENVIRONMENTAL ISSUES IN INDIA

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Abstract

Development cannot stop for the sake of the environment what is needed is to stress the choosing of method that would ensure minimum environmental damage while maximum developmental benefits. The major concern is to redress the situation rather than attribute problems. With the conviction that there is a limit bearing capacity of over development, the damage must happen. In developing countries the damage to the environment has not been very much, and there is still time to undertake some preventive and even curative measures. The nature of the development and environmental impact vary significantly among developing countries but there is so badly impact on whole world. Hence, sustainable development refers to development activities that do not impair environmental resources quality. This includes maintaining ecological processes, preserving biodiversity, and protecting species and ecosystems.

Keywords – Environmental damage, Conviction, Sustainable Development

Introduction

"Sustainable Development is the development that meets the needs of the present generation without compromising with the needs of future generations." This definition was put forward by the Brundtland Commission in its report "Our Common Future" in 1987. It calls for a concerted effort to build an inclusive, sustainable, and resilient ecosystem for the people and the planet. The main features of sustainable development include Increase in per capita income, judicious use of natural resources and preserving the resources for future generations.

There are four dimensions to sustainable development – society, environment, culture and economy – which are intertwined, not separate. Sustainability is a paradigm for thinking about the future in which environmental, societal and economic considerations are balanced in the pursuit of an improved quality of life. For example, a prosperous society relies on a healthy environment to provide food and resources, safe drinking water and clean air for its citizens. The report of the World Commission on Environment and Development has also recognized that unlimited growth was neither feasible nor desirable, that basic needs for all should be the highest priority of development, and that only protected and carefully nurtured environment could sustain human aspirations. It is commendable that the general feeling today is for preserving the environment for sustainable development which has led to common understanding in both developed and developing countries in that the environmental considerations should be linked to development strategies

Objective

1. To understand what is sustainable development
2. To know the sustainable development goal
3. To identify the environmental issues and how to overcome on it

Goals of Sustainable Development

As an affirmative action towards tackling the global environmental crisis that involves global warming, climate change, and ozone layer depletion, the United Nations adopted 17 Sustainable Development Goals (SDG) and 169 targets as part of the United Nations 2030 Agenda.

The 17 Sustainable Development Goals are: 1. End poverty in all its forms everywhere 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture 3. Ensure healthy lives and promote well-

being for all at all ages 4. Ensure inclusive and equitable quality education, and promote lifelong learning opportunities for all 5. Achieve gender equality and empower all women and girls 6. Ensure availability and sustainable management of water and sanitation for all 7. Ensure access to affordable, reliable, sustainable, and modern energy for all 8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all 9.Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation 10. Reduce inequality within, and among, countries 11. Make cities and human settlements inclusive, safe, resilient, and sustainable 12. Ensure sustainable consumption and production patterns 13. Take urgent action to combat climate change and its impacts 14. Conserve and sustainably use the oceans, seas, and marine resources for sustainable development 15. Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Environmental Issues and Challenges in India

In India, factors like rapid growth of population, urbanization, industrialization, and poverty, among others are responsible for harming the environment. Some of the severe environmental issues prevalent in India are

1. Degrading Air Quality Index
2. Rampant Environmental Degradation
3. Loss of Biodiversity
4. Urbanization in the Himalayas
5. Loss of Resilience in Ecosystems
6. Lack of Waste Management
7. Depletion of Resources (land, air, water)
8. Growing Water Scarcity

There are many more such issues that need to be addressed to maintain a sustainable environment so as to ensure consistent economic development.

Major Environmental Issues

Population Growth and Environmental Quality

There is a long history of study and debate about the interactions between population growth and the environment. According to a British thinker Malthus, for example, a growing population exerts pressure on agricultural land, causing environmental degradation, and forcing the cultivation of land of higher as well as poorer quality. This environmental degradation ultimately reduces agricultural yields and food availability, famines and diseases and death, thereby reducing the rate of population growth.

Population growth, because it can place increased pressure on the assimilative capacity of the environment, is also seen as a major cause of air, water, and solid-waste pollution. The result, Malthus theorized, is an equilibrium population that enjoys low levels of both income and Environmental quality. Malthus suggested positive and preventative forced control of human population, along with abolition of poor laws.

Malthus theory, published between 1798 and 1826, has been analysed and criticised ever since. The American thinker Henry George, for example, observed with his characteristic piquancy in dismissing Malthus: "Both the jayhawk and the man eat chickens; but the more jayhawks, the fewer chickens, while the more men, the more chickens." Similarly, the American economist Julian Lincoln Simon criticised Malthus's theory. He noted that the facts of human history have proven the predictions of Malthus and of the Neo-Malthusians to be flawed. Massive geometric population growth in the 20th century did not result in a Malthusian catastrophe. The possible reasons include: increase in human knowledge, rapid increases in productivity, innovation and application of knowledge, general improvements in farming methods (industrial agriculture), mechanisation of work (tractors), the introduction of high-yield varieties of rice and

wheat among other plants (Green Revolution), the use of pesticides to control crop pests.

More recent scholarly articles concede that whilst there is no question that population growth may contribute to environmental degradation, its effects can be modified by economic growth and modern technology. Research in environmental economics has uncovered a relationship between environmental quality, measured by ambient concentrations of air pollutants and per capita income. This so-called environmental Kuznets curve shows environmental quality worsening up until about $5,000 of per capita income on purchasing parity basis, and improving thereafter. The key requirement, for this to be true, is continued adoption of technology and scientific management of resources, continued increases in productivity in every economic sector, entrepreneurial innovation and economic expansion.

Water Pollution

India has major water pollution issues. Discharge of untreated sewage is an important cause for pollution of surface and ground water in India, since there is a large gap between the generation and treatment of domestic waste water. The problem is not only that India lacks sufficient treatment capacity but also that the sewage treatment plants that exist do not operate and are not maintained. The majority of government-owned sewage treatment plants remain closed most of the time due to improper design, poor maintenance, or lack of reliable electricity supply, along with severe understaffing. The waste water generated in these areas normally percolates in the soil or evaporates. The uncollected waste accumulates in urban areas, causing unhygienic conditions and releasing pollutants that reach to surface and groundwater.

According to a World Health Organization study, out of India's 3,119 towns and cities, just 209 had partial sewage treatment facilities, and only 8 have full wastewater treatment facilities (1992). Over 100 Indian cities dump untreated sewage directly into the Ganges River. Investment is needed to bridge the gap between 29,000 million litre per day of sewage India generates, and a treatment capacity of mere 6000 million litre per day. Other sources of water pollution include agriculture runoff and small scale factories along the rivers and lakes of India. Fertilizers and pesticides used in agriculture in northwestern India have been found in rivers, lakes and ground water. Flooding during monsoons worsens India's water pollution problem, as it washes and moves all sorts of solid garbage and contaminated soils into its rivers and wetlands.

Air Pollution

Air pollution in India is a serious issue, with the major sources being biomass burning, fuel adulteration, vehicle emission, and traffic congestion. Air pollution is also the main cause of the Asian brown cloud, which has been causing the monsoon season to be delayed. India is the world's largest consumer of fuelwood, agricultural waste, and biomass for energy purposes. Traditional fuel (fuelwood, crop residue and dung cake) dominates domestic energy use in rural India and account for about 90% of the total. In urban areas, traditional fuel constitutes about 24% of the total. Fuel wood, agricultural waste and biomass cake burning release over 165 million tonnes of combustion products every year.[25][26] These biomass-based household stoves in India are also a leading source of greenhouse emissions, which contribute to climate change.

The annual crop burning practice in northwest India, north India and eastern Pakistan, before and after monsoons, from April and May to October to November, are a major seasonal source of air pollution since 2002. Approximately 500 million tons of crop residue are burnt in the open, releasing NOx, SOx, PAHs and particulate matter into the air. This burning has been found to be a leading cause of smog and haze problems through the winter over Punjab, cities such as Delhi, and major population centers along the rivers through West Bengal. In other states of India, rice straw and other crop residue burning in open is a major source of air pollution.

Vehicle emissions are another source of air pollution. Vehicle emissions are worsened by fuel adulteration and poor fuel combustion efficiencies from traffic congestion and low density of quality, high speed road network per 1000 people. In order to reduce air pollution effects India is introducing hybrid and electric

vehicles as per the Faster Adoption and Manufacturing of Electric vehicles in India scheme. While challenges are slowing down the development cleaner combustion fuels are being use in motor vehicles. As of now Delhi Transport Corporation is the world's largest operator of CNG bus fleet. Many Indian cities are testing out with cleaner fossil fuels mostly CNG fuel and renewable biofuels such as biodiesel and E85 blended petroleum. In June 2020, the supreme court promised that in order to improve emissions from vehicles all BS4 vehicles will be upgraded to BS6 standards.

Noise Pollution

Noise pollution or noise disturbance is the most efficiently changing and disturbing or excessive noise that may harm the activity or balance of human or animal life. The source of most outdoor noise worldwide is mainly caused by machines and transportation systems, motor vehicles, aircraft, and trains. In India the outdoor noise is also caused by loud music during festival seasons.Outdoor noise is summarized by the word environmental noise. Poor urban planning may give rise to noise pollution, since side-by-side industrial and residential buildings can result in noise pollution in the residential areas. Indoor noise can be caused by machines, building activities, and music performances, especially in some workplaces. Noise-induced hearing loss can be caused by outside noise. High noise levels can contribute to cardiovascular effects in humans and an increased incidence of coronary artery disease.[44] In animals, noise can increase the risk of death by altering predator or prey detection and avoidance, interfere with reproduction and navigation, and contribute to permanent hearing loss.

Indian Governmental Initiatives to Tackle Environmental Degradation

While the cooperation of every citizen of the country is essential for safeguarding the environment, governments have a huge role to play in helping find solutions to the problems. The government of India has taken various steps to safeguard the environment. Some of them are listed below:

1. Swachh Bharat Mission
2. Green Skill Development Programme
3. Namami Gange Programme
4. Compensatory Afforestation Fund Act (CAMPA)
5. National Mission for Green India
6. National River Conservation Programme
7. Conservation of Natural Resources & Eco-systems

Environmental Sustainability

Environmental sustainability covers a wide range of issues starting from a specific location to global. Global issues comprise concerns about greenhouse gas mitigation, climate change, and renewable energy, while the location-specific issues are soil erosion, water management, soil quality, and air and water pollution. The role of biofuel in the dimension of environmental sustainability is largely to reduce greenhouse gas emissions though there are controversies regarding its effectiveness. The leading sources of greenhouse gas emissions for non-CO_2 greenhouse gases are agricultural practices like the use of fertilizer, soil tillage, pesticides, irrigation practices, and harvesting. In evaluating the environmental factor, the use of land prior to the production of biofuel plays a significant role. If forest or grassland are used for the conversion of biofuel, then the reduction of greenhouse gas emissions is markedly affected. Sustainability of biomass-based biofuel is increasingly measured via lifecycle analyses.

Conclusion

Development is must to enhance the human need and greed, but if it harmful to human existence it's very dangerous. Development and environmental sustainability is not going with hand in hand. If we apply some technique in our society I think it's better to our future for sustainable development.

By planting more trees. Rainwater harvesting. Reduce, Reuse, and Recycle. By reducing the use of chlorofluorocarbons. Reduce fuel consumption. Treating the industrial effluents before dumping them in water bodies. Reducing the use of fertilizers.

Control population growth.

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