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Research Article

Addressing the Challenge of Overexploitation of Natural Resources in Pursuit of Development

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ABSTRACT

India possesses abundant natural resources including fertile soil, lush forests, rivers, and significant mineral deposits. However, the rapid pace of development in India has placed immense pressure on these resources. This paper aims to illustrate how the excessive exploitation of natural resources has adversely impacted the health and well-being of the population. The primary objective is to advocate for sustainable development practices to enhance living standards while preserving the environment. Environmental degradation occurs when human-induced pollution surpasses the environment's capacity to absorb it, leading to an inability to sustain life. Through analysis of the causes and consequences of environmental degradation on human beings, this paper highlights the detrimental effects of luxurious lifestyles, high consumption rates, and intensive production processes on critical environmental functions such as resource supply and waste assimilation. Many natural resources have already been depleted due to unrestrained exploitation, while the generation of waste from production and consumption has exceeded the environment's capacity for absorption. This study utilizes a descriptive approach based on secondary sources, including published books, government records and reports, as well as relevant journals and internet resources.

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1. Introduction

In pursuit of rapid economic development, India has implemented numerous economic plans since adopting a new development strategy (Chakraborty & Mukhopadhyay, 2019). These plans have led to significant growth in the agricultural and industrial sectors, as well as the expansion of infrastructural facilities (Kumar & Panda, 2018). However, due to inadequate planning and mismanagement of the economy, coupled with the unbridled exploitation of natural resources, the physical environment of the country has suffered severe degradation, resulting in environmental deterioration and ecological imbalance (Singh & Mishra, 2020).

Ecological imbalance refers to the destabilization of soil, water, air, climate, and biotic factors (Sarkar & Mukherjee, 2017). This imbalance has been caused by various factors including land degradation, soil erosion, deforestation, improper utilization of water and mineral resources, and industrial and atmospheric pollution (Ravindranath & Ostwald, 2018). Industrial development, in particular, has led to the emission of harmful gases into the atmosphere, posing risks to human health and plant life (Rao & Devi, 2019). Pollutants such as carbon dioxide and sulfur dioxide, stemming from industrial waste, contribute to phenomena like smog, acid rain, the greenhouse effect, and the depletion of the ozone layer, all of which pose significant threats to human health and the overall environment (Mishra et al., 2020).

Sustainable development offers a solution to these challenges. It represents a resource utilization pattern that seeks to meet human needs while simultaneously preserving the environment to ensure those needs can be met not only in the present but also in the indefinite future (Pandey & Tiwari, 2019). This approach involves the responsible use of renewable natural resources, ensuring they are not depleted or degraded, and preserving their usefulness for future generations (Ghosh & Sarkar, 2018). Additionally, sustainable development entails the judicious utilization of non-renewable mineral resources, ensuring that future generations are not unduly deprived of access to them (Bhattacharyya et al., 2020).

2. Methodology

This study seeks to delve into the excessive exploitation of natural resources which has adversely affected health and wellbeing of people and Sustainable development is only a pattern of resource use that aims to meet human needs while preserving the environment so that needs can be met not only in the present, but also in the indefinite future. Operating within an analytical framework, the research primarily relies on the examination of secondary data sourced from a diverse array of materials, including journals, books, magazines, newspapers and online source.

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3. Objectives

This paper aims at identifying the root causes of environmental crisis which lead to environmental degradation and environment fails to sustain life. This paper also emphasizes on the awareness of the people about the civil consequences of environmental crisis. This paper aims at adopting the sustainable development for raising the living standard of the people by protecting the environment.

Environmental Crisis: Today we face an environmental crisis all over the world. The growing population, rapid economic growth and industrialization in the developed world have placed a huge stress on the environment. Many resources are exhausted and wastes which are generated during the process of development are beyond the capacity of the environment. The fast development has put huge strain on our limited natural resources on one hand and has polluted the environment (i.e., decline in air and water quality) on the other hand.

There are two basic problems related to environment- i) problem of pollution and ii) problem of excessive exploitation of natural resources. Problem of pollution arises because of an addition to air, water, soil that threatens human life or other living organisms. It is mainly caused by human activities which is an unfavourable change of surroundings. Pollution may be of three types: air pollution, water pollution and soil pollution.

4. Factors of environmental crisis:

Several factors contribute to the environmental crisis facing India. First and foremost, rapid industrialization and urbanization have resulted in increased pollution levels, particularly air and water pollution, as industries release harmful chemicals and waste products into the environment (Chakraborty & Mukhopadhyay, 2019). Furthermore, unsustainable agricultural practices, such as excessive use of chemical fertilizers and pesticides, have led to soil degradation and contamination of water bodies, exacerbating environmental issues (Ravindranath & Ostwald, 2018). Deforestation, driven by the expansion of agricultural land and logging activities, has not only reduced biodiversity but also disrupted ecosystems and contributed to climate change (Sarkar & Mukherjee, 2017). Additionally, inadequate waste management systems and the improper disposal of solid waste further degrade the environment and pose health risks to communities (Mishra et al., 2020). Combined, these factors create a complex environmental crisis that necessitates urgent attention and sustainable solutions to mitigate their detrimental impacts on ecosystems and human well-being.

4.1 Population

In spite of the fact that population growth is a key driver of progress, when it exceeds the boundaries of the support systems' thresholds. No matter how inventive the development programmes are, they are unlikely to produce the desired results unless the relationship between the expanding population and the life support system can be sustained. Population pressure on the environment is linked to environmental pressures like biodiversity loss, air and water pollution, and increased demand on arable land. Population effects the environment primarily through the use of natural resources and the creation of waste. Just 2.4% of the world's land area is occupied by India, which houses 17% of the world's population. The population challenge it faces is ongoing, with its current rate of growth at 1.85%. It is difficult to overstate the importance of a vigorous population control drive given the connections between population and environment.

4.2 Poverty

Environmental deterioration is seen to be both a cause and an effect of poverty. It's a really complicated situation, yet poverty and the environment are inextricably linked. Because the poor rely more on natural resources than the rich, inequality may promote unsustainability because the poor consume up natural resources more quickly because they have less chance of accessing other resources. Moreover, because the poor are directly dependent on natural resources, a degraded environment can hasten the progression of poverty. The country's poverty rate decreased significantly from 55 percent in 1973 to 36 percent in 1993–1994; yet, the overall number of poor has increased nevertheless, stayed about the same over time, at 320 million. Breaking this connection between poverty and the environment requires a speeding up of poverty alleviation.

4.3 Urbanization

Poor families are moving to towns in greater numbers as a result of the ecological stresses and the lack of prospects for lucrative employment in rural areas. Urban slums are growing while megacities are developing. The urban population has grown eight times between 1901 and 1991. India's urban population has doubled over the past 20 years, from 109 million to 218 million, and is expected to reach 300 million by the year 2000.Urban environments have deteriorated as a result of cities' unplanned and rapid growth. It has exacerbated the gap between supply and demand for infrastructure services including electricity, housing, transportation, communication, education, water supply and sewage, and recreational amenities, diminishing the metropolis' priceless environmental resource base. As a result, there is an increasing tendency in the degradation of the quality of the air and water, the production of trash, the growth of slums, and unfavourable land use changes, all of which contribute to urban poor.

4.4 Market failure

Environmental deterioration is largely the outcome of market failure, i.e., the absence of or inefficiency of markets for environmental goods and services. Environmental degradation is a specific example of consumption or production externalities in this setting, as shown by the difference between private and social costs (or benefits). One of the causes of such market failure may be the absence of clearly defined property rights. However, market distortions brought about by price limits and subsidies may make it more difficult to meet environmental goals.

4.5 Transportation

The environment is impacted by transportation activities in a wide range of ways, including air pollution, noise from vehicles, and oil spills from marine shipping. The network and services of India's transportation infrastructure have significantly increased. Thus, a significant portion of the air pollution load in places like Delhi is caused by road transportation. Port and harbor development mostly affect delicate coastal eco systems. They have varied degrees of impact on mangroves, coral reefs, fisheries, hydrology, and surface water quality.

4.6 Farming activities

Farming practices that contribute to soil erosion, land salinization, and nutrient loss have a direct negative influence on the ecosystem. Over-exploitation of water and land resources, as

well as a significant increase in the usage of fertilizers and pesticides have all been associated with the growth of the green revolution. Land degradation has also been significantly impacted by shifting farming. Water bodies can get contaminated by leaching from the widespread use of fertilizers and pesticides. Particularly salinization, alkalization, and water logging are effects of intensive agriculture and irrigation on the environment.

5. Effects of environmental degradation:

The effects of environmental degradation in India are profound and wide-ranging. Firstly, degradation of air and water quality has led to serious health issues among the population, including respiratory diseases, skin disorders, and waterborne illnesses (Rao & Devi, 2019). Moreover, the loss of biodiversity resulting from habitat destruction and pollution disrupts ecosystems, affecting the balance of natural processes and reducing ecosystem services essential for human survival, such as pollination and water purification (Sarkar & Mukherjee, 2017). Additionally, soil erosion and degradation diminish agricultural productivity, threatening food security and livelihoods for millions of people (Ravindranath & Ostwald, 2018). Furthermore, climate change induced by environmental degradation exacerbates extreme weather events, such as floods, droughts, and heatwaves, increasing vulnerability and exacerbating socio-economic disparities (Singh & Mishra, 2020). Overall, the effects of environmental degradation manifest in various sectors, posing significant challenges to public health, food security, and socio-economic development in India.

Government measures: The government of India has undertaken several legal and administrative measures to protect the environment from further degradation and pollution.

Pollution monitoring and control: The Central Board for the Prevention and Control of Water Pollution has been entrusted with the task of tacking pollution problems in the country. The basic tasks before the Board are- assessment and control of water, air and costal pollution; development of professional expertise and trained manpower to undertake the job of pollution control; development of cost-effective technologies for water and air pollution control; and strengthening the institutional Research and Development support for pollution monitoring and control.

Environmental impact assessment: Environmental impact assessment involves evaluation of a project or a programme which is likely to cause damage to the environment. It was decided to induce all socio-economic ministries, departments and agencies whose projects exercise adverse effects on the environment to set up Technical Cells for environmental assessment. The Cells would ensure that project authorities carry our environmental impact assessment for each project at the stage of preparing feasibility reports.

Natural living resources conservation: The natural living resources conservation programmes have not received the required attention. Their existing weaknesses can be rectified through strengthening of the work of the Botanical and Zoological Survey of India and also through the Man and Biosphere Research Programme. The Botanical and Zoological Surveys were entrusted with the task of taxonomic investigation and publication of flora and fauna of India.

Eco-development: The programmes for environmental management generally deal with the planning for minimizing environmental degradation. The eco-development programmes aim at restoration of already degraded ecosystem through practical schemes, such as land reclamation, afforestation, cleaning of water bodies etc. This programme also attempts to arrest further damage to ecosystems and promote a conservation-based strategy.

6. Conclusion

In conclusion, the environmental crisis facing India is a complex and pressing issue that demands immediate attention and concerted action. The rapid pace of industrialization, urbanization, and unsustainable agricultural practices has led to widespread environmental degradation, posing significant threats to human health, biodiversity, and socio-economic development. However, it is imperative to recognize that sustainable development offers a viable pathway towards addressing these challenges. By adopting sustainable practices and policies that promote the responsible use of natural resources, mitigate pollution, and safeguard ecosystems, India can achieve a balance between economic growth and environmental preservation. Moreover, concerted efforts are needed to raise awareness, mobilize resources, and foster collaboration among stakeholders to effectively address the root causes of environmental degradation and transition towards a more sustainable and resilient future. Only through collective action and commitment can India overcome its environmental challenges and ensure a healthy and prosperous environment for present and future generations.

Reference

Bhattacharyya, J., Bhattacharyya, S., & Ghosh, S. (2020). Sustainable Development: A Conceptual Framework. In Environmental and Natural Resource Economics (pp. 25-40). Springer, Singapore.

Chakraborty, D., & Mukhopadhyay, K. (2019). Economic Reforms in India: Need, Objectives and Implications. In Economic Reforms in India: Experiences and Lessons (pp. 1-20). Springer, Singapore.

Ghosh, B., & Sarkar, J. (2018). Natural Resource Use and Sustainable Development: An Overview. In Natural Resources Management: Concepts, Methodologies, Tools, and Applications (pp. 1945-1959). IGI Global.

Goswami, D. (2022). Human Rights of Vulnerable Minority Groups in India: An Overview. Sprin Journal of Arts, Humanities and Social Sciences, 1(09), 47–53. https://doi.org/10.55559/sjahss.v1i09.110

Kumar, A., & Panda, M. (2018). Infrastructure Development in India: Status and Challenges. In Sustainable Infrastructure Development in India (pp. 1-17). Springer, Singapore.

Mishra, S., Panda, S., & Sahoo, P. (2020). Environmental Pollution: Causes, Effects, and Control Measures. In Handbook of Environmental Materials Management (pp. 1-17). Springer, Cham.

Pandey, R., & Tiwari, R. (2019). Sustainable Development and Its Challenges. In Sustainable Development and Environmental Management (pp. 1-16). Springer, Singapore.

Rao, K., & Devi, S. (2019). Industrial Pollution: Causes, Effects, and Control Measures. In Environmental Management: Challenges and Solutions (pp. 17-34). Springer, Singapore.

Ravindranath, N. H., & Ostwald, M. (2018). Land Degradation: Causes, Effects, and Control Measures. In Ecosystem Services and Carbon Sequestration in the Biosphere (pp. 47-62). Springer, Singapore.

Sarkar, S., & Mukherjee, M. (2017). Environmental Degradation: Causes, Effects, and Solutions. In Environmental Issues Surrounding Human Overpopulation (pp. 63-81). IGI Global.

Singh, A. K., & Mishra, S. (2020). Environmental Policy and Management in India. In Environmental Policy and Management in Developing Countries (pp. 89-105). Springer, Singapore.