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A Brief Study on results of High Pollution

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Abstract:
This paper aims to provide an overview of the topic at hand, discussing its key aspects. Human activities have been found to be responsible for widespread harm to the atmosphere, water bodies, land, numerous environmental components, and the overall ecosystem. The current state of man-made pollution and environmental deterioration is a cause for concern, as it presents a worrisome future that has the potential to unsettle society as a whole. When considering the whole situation from a synoptic perspective, several trends are currently in progress. The pollution levels in our atmosphere, both on a global and regional basis, are significant. The depletion of the ozone barrier in the densely inhabited latitudes of the northern hemisphere is occurring at a rate that is twice as rapid as previously estimated by scientists in recent years. The accumulation of greenhouse gases is anticipated to result in notable alterations in weather patterns in the foreseeable future, contributing to the phenomenon of global warming. The depletion of the ozone layer and subsequent global warming pose significant risks, including the potential for increased incidence of cancerous and tropical diseases, disruption of marine food chains, rising sea levels, submersion of islands, melting of land-based glaciers, flooding in low-lying coastal regions, and agricultural losses. The notion of the environment has been present since the inception of the natural world. The term "ecosystem" encompasses the conditions in which creatures, including those reliant on air, water, food, sunlight, etc., flourish and serve as vital sources of life for both living and non-living entities, including plant life.

Keywords: Pollution, environment, protection, deforestation

Introduction

The word encompasses atmospheric temperature, wind, and their respective velocities. Before delving into the concept of "environmental pollution," it is imperative to comprehend the definition of "pollution" by the Royal Commission on Environmental Pollution in the United

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Kingdom. In its third report, the organisation provided a definition for the term "pollution" as follows: pollution refers to the act of human beings introducing substances or energy into the environment that have the potential to pose risks to human health, cause harm to living resources and ecological systems, result in damage to structures or amenities, or disrupt legitimate uses of the environment. As to the provisions outlined in Section 1(3) of the United Kingdom legislation, According to the Environment Protection Act of 1990, the term "pollution" refers to the act of releasing compounds from any process that have the potential to cause harm to humans or other living species that rely on the environment. These substances can be released into any environmental medium. Pollution arises when there is a possibility of detrimental consequences. The harm experienced by individuals extends beyond physical injury and includes any offence caused to any of their senses or damage to their property. Consequently, odours and noise, although not directly causing physical suffering, can be considered forms of pollution. Damage to living beings might encompass negative impacts on their well-being or disruptions to the ecological systems in which they are integrated. There are various types of pollution that can be categorised under the umbrella term of environmental contamination. There are two main categories of pollution: natural pollution and man-made pollution. The user's text does not contain any content to rewrite. Natural Pollution: Natural phenomena like earthquakes, floods, droughts, cyclones, and other similar events frequently cause pollution to the environment. Anthropogenic Pollution: Human-induced Activities Environmental pollution can be further categorised into various types, including air pollution, water pollution, land pollution, food pollution, noise pollution, and radioactive contamination, among others.

FACTORS OF ENVIRONMENTAL PROBLEMS

The „environmental crisis" is caused due to environment and ecological changes as a result of developmental process of the 'economic and technological man" of the present century. In fact if the present century is marked by socio-economic, scientific and technological development on the one hand, it is plagued by serious problems of environmental problems on the other hand. The environmental crisis arising out of the environmental deterioration caused by several forms of pollution, depletion of natural resources because of rapid rate of their exploitation and increasing dependence on energy consuming and ecologically damaging technologies, the loss of habitats due to industrial, urban and agricultural expansion, reduction and loss of ecological populations due to excessive use of toxic pesticides and herbicides and loss of several species of plants due to practice of monoculture removal of habitats through forest clearance has now

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become of global concern. The life of common man is being so rapidly adversely affected by environmental degradation caused by man himself that there has been a marked growth of interest within the last decade in the quality of the environment, the disruption of the earth's natural ecosystems and the depletion of resources. The most striking reason of the environmental degradation and hence global environmental crisis is the fact of deteriorating relationship between man and environment because of rapid rate of exploitation of natural resources, technological development and industrial expansion. The rate of environmental change and resultant environmental degradation caused by human activities has been so fast and widespread. The impact of man on environment through his economic activities are varied and highly complex as the transformation or modification of the natural condition and process leads to a series of changes in the biotic and abiotic components of the environment. The impacts of man on environment fall into two categories (i) direct or intentional impacts and (ii) indirect or unintentional impacts, Direct or intentional impact of human activities are preplanned and premeditated because man is aware of the consequences, both positive and negative of any programme which is launched to change or modify the natural environment for economic development of the region concerned. The effects of anthropogenic changes in the environment are noticeable within short period and these effects are reversible. On the other hand the indirect impacts of human activities on the environment are not premeditated and preplanned and these impacts arise from those human activities which are directed to accelerate the pace of economic growth, especially industrial development.

The indirect impacts are experienced after long time when they become cumulative. These indirect effects of human economic activities may change the overall natural environmental system and the chain-effects sometimes degrade the environment to such an extent that this becomes suicidal for human beings. The primary factors contributing to environmental pollution. The issue of environmental pollution that we currently encounter is a multifaceted outcome of interconnected forces associated with various factors. There exist multiple and contradictory perspectives regarding the fundamental factors contributing to the environmental crisis. It is important to note that no single cause can be identified as the primary source of environmental degradation. Nevertheless, the following causes can be identified as the overarching factors, although it is worth noting that each of these factors may operate concurrently and their relative significance may differ across different locations and over time. The phenomenon of population growth refers to the increase in the number of individuals within a certain population during a specific period of time. Contemporary scholars contend

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that the proliferation of the human population serves as a fundamental catalyst for numerous societal issues. This assertion is equally applicable to the realm of environmental deterioration. The expansion of the population engenders a compounding effect, necessitating a commensurate augmentation in all essential prerequisites for human survival. The growth in population necessitates an excessive exploitation of natural resources to meet the daily necessities of life. Consequently, this engenders the migration of individuals and the proliferation of urban areas, thereby giving rise to novel challenges pertaining to public health, ecological balance, and human sustenance. The phenomenon of heightened overall prosperity and expansion in economic activity. The concept of affluence, which refers to the material aspects of per capita consumption of goods and resources, plays a significant role in the relationship between humans, resources, and the environment. In both developed and developing countries, the increasing per capita demand of the wealthy population absorbs the growth in output of goods and services. This phenomenon leads to the misuse, overuse, and pollution of resources, as the level of affluence exceeds the necessary resource consumption. Consequently, this tendency to waste matter and energy poses a threat to the environment. It is noteworthy that despite the substantial impact of affluence on the environment, it is rarely discussed. Conversely, there is a tendency to attribute the destruction of the environment to poverty and the poor.

However, it is important to acknowledge that the belief that poverty or the poor are the primary culprits in environmental degradation is only partially true. The contemporary era is characterised by the pervasive presence and influence of advanced technology. The relationship between productive technology and the environmental crisis has become increasingly significant in recent years. Commoner argues that significant changes in productive technology since World War II have led to the displacement of less harmful technologies, resulting in the creation of synthetic and non-biodegradable substances such as plastics, chemical nitrogen fertilisers, synthetic detergents, synthetic fibres, large automobiles, petrochemical industries, and other environmentally damaging sectors. This shift towards a disposable culture and the emergence of environmentally harmful industries has contributed significantly to the environmental crisis. It is important to note that ecologically sustainable technologies have existed and continue to exist, but they are not widely adopted due to their perceived inconsistency with short-term profit maximisation objectives of private entities. Deforestation refers to the deliberate and widespread removal of trees and vegetation from forests, resulting in Forests are invaluable property of a nation because they provide raw

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materials to modern industries, timber for building purposes, habitats for numerous types of animals and micro-organisms. Good fertile and nutrient-rich soils having high content of organic matter, offer protection to soils by binding the soils through the network of their roots and by protecting the soils from direct impact of falling raindrops. They encourage and increase infiltration of rainwater and thus allow maximum recharge of groundwater resources, minimize surface run-off and hence reduce the frequency, intensity and dimension of floods. They help in increasing the precipitation; they are natural sink of carbon dioxide because they use carbon dioxide to prepare their food during the process of photosynthesis. They provide firewood to millions of people all over the world and food and shelter to innumerable humans and animals. In fact, forests are 'life line' of a nation because prosperity and welfare of the society directly depends on sound and healthy forest cover of a nation concerned. Forests are main component of the biotic components of the natural environmental system and the stability of the environment and ecological balance largely depend on the status of the forests of the region concerned.

It is a matter of serious concern that the present economic man has forgotten the environment and ecological significance of natural vegetations mainly forests and grasslands and has destroyed the forests so rapidly and alarmingly that the forest areas at global, regional and local levels have so markedly decreased that several serious environmental problems such as accelerated rate of soil loss through rain splash, sheet wash, rill and gully erosion, increase in the frequency and dimension of floods, greater, incidence of drought due to decrease in precipitation etc. have plagued the modern human society. The major causes of deforestation at global and regional levels are conversion of forest land into agricultural land, shifting cultivation, transformation of forests into pastures, overgrazing, forest fires, lumbering, multipurpose river projects etc. Deforestation gives birth to several problems encompassing environmental degradation through accelerated rate of soil erosion, increase in the sediment load of the rivers, siltation or reservoirs and river beds, increase in the frequency and dimension of Hoods and droughts, changes in the pattern of distribution of precipitation, intensification of greenhouse effects increase in the destructive force of the atmospheric storms etc. economic loss through damages of agricultural crops due to increased incidence of floods and draughts, decrease in agricultural production of loss of fertile top soils, decrease in the supply of raw materials to the industries and building matters etc. Thus deforestation cause a chain effects which adversely affect the natural environment. The topic of discussion pertains to the field of agricultural development. Agricultural development means expansion of agricultural land

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increase in agricultural productivity and net agricultural production. It is due to development of modern scientific techniques, advanced technologies, increased production and use of chemical fertilizers, expansion in irrigational facilities, development of highyielding varieties of seeds, etc. This has solved the problem of growing demand of food due to ever increasing world population on the one hand; it has also created or is creating hazardous environmental problems of serious concern on the other hand. Thus modern economic and technological man is at the cross road of dangers in all directions. The agricultural development degrades the environment in a variety of ways, e.g. (i) through the application of chemical fertilizers and pesticides and insecticides, (ii) through the increase in irrigational facilities and amount of irrigation, (iii) by making changes in biological communities etc.

Conversion of forests land into agricultural farms on sloppy ground accelerates rate of soil erosion. Increased in agricultural land at the cost of destruction ol forest and consequent soil erosion, substantial increase in the productivity of land through the practice of intensive cultivation, increased use of machines and modern scientific techniques, application of chemical fertilities, pesticides, insecticides and herbicides, increase in the frequency and area of watering of agricultural fields, etc. All these processes and measures of increased agricultural development cause several serious environmental problems. It appears that the root cause of all these environmental problems arising out of agricultural development is the increase of human population at alarming rate. So the foremost step to be taken is to stop population growth because if population continues to grow agricultural development has to be maintained. The topic of interest is industrial development. The adverse effects of industrialization may change the overall character of natural system and the chaineffects sometimes become suicidal for human society. Majority of the impacts of industrialization are related to pollution and environmental degradation. The release of toxic elements into the environment through the application of chemical fertilizers, pesticides and insecticides (output of chemical industries) changes the food chains and food webs and physical and chemical properties of soils. Similarly the release of industrial wastes into stagnant waters of ponds, tanks, and lakes into rivers and seas contaminates water and causes several diseases and deaths of organism and thus disturbs ecological balance of aquatic ecosystem. Increasing industrial expansion is responsible for the release of enormous quantities of pollutants (e.g.) ions of chlorine, sulphate, bicarbonate, nitrate, sodium, magnesium, phosphate, through sewage effluents into the rivers and the lakes and thus for contaminating the water. Release of several gases, smokes, ashes and other aerosols from the chimneys of the factories adversely affects

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the environment in a number of ways. The burning of hydrocarbon fuels (coal and petroleum) has increased the concentration of C02 in the atmosphere and thus has changed the natural gaseous composition of the atmosphere. The increase in the construction of C02 content of the atmosphere may change global radiation and heat balance by increasing the level of sensible heat in the atmosphere because C02 intensifies the greenhouse effects of the atmosphere as C02 allows the solar radiation to pass through the atmosphere and reach the earth's surface but stops the outgoing long wave terrestrial radiation from escaping to the space release of chlorofluoro carbon in the atmosphere causes depletion of ozone layer. Depletion in ozone layer means less absorption of ultraviolet solar rays and thus substantial increase in the temperature at the earth surface. Thus changed in the global radiation and heat balance caused due to increase in the concentration of carbon dioxide in the atmosphere and depletion of ozone layer may cause changes in weather and climatic conditions at global and regional levels may cause severe damages to plant and animal lives and thus may cause ecological imbalance. It may cause dangerous diseases like skin cancer etc. Release of toxic gases through advertent and inadvertent actions of man causes environmental hazards which destroy all types of life forms in the affected areas. The Bhopal Gas Tragedy (December 3-4, 1984, India) is an example of disastrous effects of modern industrialization. Acid rains, urban smogs, nuclear holocaust, etc., are the other forms of environment hazards emanating from industrialization.

Conclusion

In conclusion, it can be inferred that... The causes for environmental problems are many. The multiplicity of causes makes it difficult to clearly delineate the causes and consequences of environmental degradation in terms of simple one to one relationship. The causes and effects are often interwoven in complex webs of social, technological, environmental and political factors. However, some of the very common causes of environmental degradation which can be clearly pointed out are the population growth, the economic growth associated with the affluence factor and change of technology. Population is an important resource for development, yet it is a major cause of environmental degradation when it exceeds the threshold limits of the support systems. The overriding impact of adverse demographic pressure ultimately falls on our resources and ecosystems. Combined with it the conditions of poverty and underdevelopment themselves create a situation where the people are forced to live in squalor and further degrade their environment. The process of development itself also leads to damage of the environment, if not properly managed. Associated with the rapid economic growth, the extravagant affluence consume far more resources and put far greater pressure on

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natural resources. The change of technology causes planned obsolescence causing the generation of more and more wastes which in turn prove ecologically harmful. Shortterm interests of private profit maximization, further, hamper the process of replacement of obsolete technologies by the ecologically benign technologies.

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