



ENVIRONMENT SUSTAINABILITY – A MYTH OR REALITY

KEYWORDS

Life space, biotic and abiotic organisms, environmental degradation.

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ABSTRACT

Environment is the live space in which we lead our life. The study by which we make the surrounding comfortable is the environmental study. Every organism is surrounded by materials and forces which constitute its environment, from which it must derive its needs. It creates favourable conditions for the existence and development of living organisms. It is a space where people can live happily and make others to live. This includes biotic and abiotic organisms. The main focus of environment is Eco system, in which living and non-living things around us influencing one another. The objective of this study is to get awareness and sensitivity to the total environment; to analyze the various social, economic, ecological factors which paves the way for environmental degradation; to identify and solve ways and means through which environment can be revived; to motivate the participants about the necessity of conservation of natural resources.

Introduction

The word environment derived from the French word "Environ" meaning "Surroundings". In simple words, each and everything around us is called as environment. The survival of any species depends greatly on living surroundings. The living and non-living forms the eco system and it has to be safeguarded in all significant aspects. Eco system is the basic functional unit of ecology. For instance, animals cannot synthesis their food directly but depend on the plants either directly or indirectly. The study of eco system is called 'Ecology'. Ecology is the study of interactions among organisms or group of organisms with their environment. All living organisms, whether plant or animal or human being are surrounded by the environment, from which they derive their needs for survival. Each living component interacts with non-living components in order to fulfill their basic requirements form different ecosystem. It is the responsibility to preserve the environment by the humans at large.

Need for the study

As present environment is moving towards great volatile conditions, it is necessary to formulate and practice sustainable measures in order to safeguard our society from natural calamities. Hence it is the duty of every human being to understand their roles and to act accordingly. Therefore paralyzing the living standards with the environmental situations is considered to be an predominant aspects in every stages of life.

Different form of environmental effects

In the absence of protecting the environment, the following are the different type of environmental effects.

- It causes adverse result to natural resources.
- It leads to ozone layer depletion.
- It results in global warming.
- Metabolism of humans are getting changes by pollution in the form of diseases or bacteria.

Types of Environmental pollution

Water Pollution

The alteration in physical, chemical and biological characteristics of water which may cause harmful effects on humans and aquatic life. This generally include sewage, industrial chemicals and effluents, oil and other wastes, chemicals from the air dissolved in rain water, fertilizers, pesticides and herbicides leached from the land also pollute water.

Recent announcement made by corporates on the hydro carbon (methane, Propane, Ethane and all forms of with the suffix "ane") extraction will greatly affects all environmental basic needs. This is due to the fact that addition of 650 chemicals to separate the hydro carbon from the minerals. The process of hydro carbon extraction is based on separating C+ H₂ and excess carbon wastes results in soil pollution and it is highly inflammable. Due to this, the land becomes barren and it is difficult to harvest any agriculture commodities.

Air Pollution

The presence of one or more contaminants like dust, smoke, mist and odour in the atmosphere which are injurious and harmful to plants and living beings. According to WHO, in 2014 death of nearly 7 million people worldwide due to the various causes of air pollution. There are plenty of reasons for which the air is getting polluted such as rapid industrialization, increase in urbanization, exponential growth of population, more usage of vehicles in daily routine life and unwanted activities of humans which results negative impact on atmospheric pollution at large.

In present competitive turbulent scenario, the air pollution causes severe consequences under the sub categories of green house effect (exchange of energy from sun to earth surface) that leads to climatic changes like acid rain, monsoon disturbances, military pollutants (nuclear bombs, chemical explosives) and especially daily life cigarette smokers, forest fire which release much smog that leads to pollution. For instance, in 1984 Bhopal disaster in India, which took away the life of 400 people who worked in carbide factory.

Noise Pollution

The excessive disturbance in the form of unpleasant sound that affects all living beings in their balanced life. There are 3 major forms which comprising of industrial, transport and neighbourhood noise. The high noise level contribute unfavourable to living beings. This results in artery diseases, ear malfunctioning, hypertension, increase in blood pressure, complete eradication of birds species, sudden changes in the behavior of animals, marine invertebrates (SONAR) etc. According to Indian Penal Code, Regulation 2000, 3(I) and 4 (I), the following table explains the ambient air quality standard in respect of noise for various zone with respect to its timing and area code (weighted Average).

Ambient Air Quality Standard in respect of noise			
Area/Zone	Area Code	Day time (dB)	
		6.00 a.m - 10.00 p.m	10.00 p.m - 6.00 a.m.
Industrial	A	75	70

Commercial	B	65	55
Residential	C	55	45
Silent	D	50	40

Marine Pollution

It occurs when harmful or potentially harmful effects result from entry into the ocean of chemicals, particles, industrial, agriculture and residential wastes. 80% of marine pollution comes from land. Air pollution is also major contributing factor of carrying pesticides in oceans. Moreover breaks down the natural insulating oils and waxes, which shield the birds from water. Ultimately they lose their insulation, start shivering and freeze to death in winter.

There are many ways the marine gets polluted such as direct discharge (eruption of volcano's in sea), ship pollution (the spilling of oil seals the sun race and required oxygen for the aquatic living species such as fishes, whales, dolphins etc., has completely suffered and its count is getting drastically reduced), atmospheric pollution, deep sea mining (to extract minerals below sea surface), acidification (increase in level of CO₂) which affects the entire oceanic eco system.

Soil Pollution

The contamination of soil by human and natural activities which may cause harmful effects on living beings. Soil pollution occurs due to dumping of medical wastes, e-wastes, non-bio degradable materials (like plastics, mobile batteries), industrial effluents (calcium chloride, magnesium sulphate, saw dust), urban wastes, agricultural practices, usage of fertilizers and pesticides causes infertility & leads to soil erosion, radioactive pollutants, biological agents etc.

The treated sewage slug causes detrimental loss to the grade of soil by bio-solids.

Suggestions

It is need of the hour to safeguard the environment for our future generations. The suitable climatic conditions need to prevail for both plants and living organisms. This may in the form of sapling more number of plants, reduce the usage of plastics, encouraging the usage of eco- friendly vehicles such as solar bikes, H₂O cars, bicycles, initiation by everyone on adopting public transportation as their mode of travel etc. which immensely paves the way for prosperous life of our cosmos.

By following the techniques of 3R's (Reduce, Recycle, Reuse) our environment can be safeguarded for the bright and glorious future of our planet.

Conclusion

"It is not an investment if it destroys the planet"

Even the government is supporting their active hands, every individual need to participate eagerly to safeguard our sphere from undesirable consequences. The successful implementation of Environment Management System (EMS) which occupies much more attention towards diverse range of society at large.

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