

ENVIRONMENTAL POLLUTION: TYPES, EFFECTS AND CONTROL MEASURES.**S. S. Kadam***

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India.**ABSTRACT**

Environment Pollution is the addition of contaminants into the natural environment that causes detrimental effects to nature, natural resources and mankind. Any unnatural and negative changes in all the dimensions like chemical, physical and biological characteristics of any component of the ecosystem i.e. air, water or soil which can cause harmful effects on various forms of life and property is the environmental pollution.

KEYWORDS: Environment, Pollution, Air, water, Soil.**INTRODUCTION**

Pollution is the introduction of contaminants in to the natural environment that cause adverse change. Pollution can take the form of chemical substances or energy. The components of pollution can be either foreign substances or naturally occurring contaminants. Due to pollution millions of peoples killed in the world. The pollution includes Air, light, noise, plastic, soil, radioactive substances, thermal, water and more pollution types. Environment Pollution is the addition of contaminants into the natural environment that causes detrimental effects to nature, natural resources and mankind. Any unnatural and negative changes in all the dimensions like chemical, physical and biological characteristics of any component of the ecosystem i.e. air, water or soil which can cause harmful effects on various forms of life and property is called environmental pollution.^[1] Any substance which causes harmful effects or uneasiness in the organisms, then that particular substance may be called as the pollutant. The materials that cause pollution are of two types: Persistent pollutants: Those pollutants which remain consistent in the environment for a long period of time without any change in its original form are called persistent pollutants. For example pesticides, nuclear wastes, and

plastics etc. Non-persistent pollutants: These pollutants are the opposite of persistent pollutant and break down in the simple form.^[2]

TYPES AND EFFECTS OF ENVIRONMENTAL POLLUTION

AIR POLLUTION

Air pollution is the presence of one or more disadvantageous content in such quantity and for such duration, as it is catastrophic, or tends to be catastrophic, to human health and welfare, animal or plant life. Some of the air pollutants like nitrogen oxides, carbon dioxide, sulphur oxide, smog etc are come out from industries, vehicles, power plants, burning of fossil fuels and some emissions. All these can cause the health effects like problems in lungs, respiratory system, severe headache, vision problems, irritation in eyes, kidney problems and also depletion of ozone layer, global warming. Other pollutants are cadmium, lead, mercury, silica, coal dust and particles and radioactive pollutants.^[1] Control measures are like Policy measures, Modification of industrial process and selection of suitable fuels and its utilization and Collection of pollutants and convert it into less toxic forms by different methods.

WATER POLLUTION

Water pollution is not only confined to surface water but also spread to groundwater, sea and ocean. The point sources are directly pointed towards the water bodies from the source of origin of pollution and are thus easy to regulate. The non-point sources are related to many diffuse sources and are thus difficult to regulate. Some of the sources are Industrial and community wastewater: Industries like mining, iron and steel, pharmaceuticals, food processing, soap and detergent and paper and pulp. Agricultural sources, thermal pollution and underground water pollution. Marine pollution, river discharge, manmade pollution and oil spills etc. The effects of water pollution are an excessive amount of mercury in water can cause Minamata disease in humans. Lead in large amount can cause dyslexia, Cadmium poisoning causes diseases etc. Polluted water has less amount of Dissolved oxygen content which is important for sensitive organisms, thereby eliminates sensitive organisms.^[2] Excess of nitrate in drinking water is dangerous for infants and human health, excess fluoride cause neuromuscular disorder and teeth deformity, hardening of bones and painful joints. Control measures are like usage of water should be minimized by changing the techniques involved. Recycling and treatment of water should be used to the maximum extent possible. The quantity of discharge of waste water can be minimized. Excessive use of pesticides and fertilizers should be avoided.

SOIL POLLUTION

Addition of unwanted substances to the soil which negatively affects physical, chemical and biological properties of soil and reduces its productivity is called soil pollution. The factors which disturb the biological balance of the soil and deteriorate the quality, texture and mineral content are called soil pollutants. Use of fertilizers, pesticides, insecticides, dumping of solid waste, deforestation and pollution due to urbanization and other anthropogenic substances causes soil pollution. The Sources soil pollution is industrial waste of lead, cadmium, mercury, alkalies, organic substances and chemicals. Agricultural waste of fertilizers, pesticides, insecticides and manures. Discarded materials and radioactive elements and plastic bags.^[1] The effects of soil pollution are in agriculture is it reduces soil fertility and thus crop yields; increase soil erosion and salinity. Ecological imbalance and imbalance in flora and fauna further increases. Problems in urban areas like clogging in drains, release of gases, foul smells and problems in wastewater management. Release of radioactive rays, biomagnifications and pollutant gases cause health problems. The control measures of soil pollution are like a forestation, reforestation and use of organic farming. Solid waste management and reduction of waste from the construction area. Stop the use of plastic bags and use bags of degradable materials like paper and cloth. Biomedical waste should be collected and incinerated in incinerators.^[3]

CONCLUSION

Any unnatural and negative changes in all the dimensions like chemical, physical and biological characteristics of any component of the ecosystem i.e. air, water or soil which can cause harmful effects on various forms of life and property is the environmental pollution. The types of pollution and their sources are discussed. The effects of environmental pollution are very hazards and they can be controllable.

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