

Pollution of Air and Water

Pollution

Our environment is our surrounding. It comprises all living and nonliving things. Any undesirable change in the physical, chemical or biological characters of air, water and soil leads to environmental pollution which is harmful to human beings directly or indirectly.

Pollutant

A pollutant is a substance that may be added to the environment directly or indirectly by man or natural events, to an extent which adversely affects humans, animals, vegetation and other materials.

Air Pollution

Air pollution is defined as the addition of undesirable materials into the atmosphere either due to human activities which adversely affect the quality of the air and hence life on earth or through natural process like volcanic eruption.

Causes of Air Pollution

1.	Human activities	2.	Thermal power plants
3.	Burning of fossil fuels	4.	Motor vehicles
5.	Industries	6.	Volcanic eruption

Greenhouse Effect

Greenhouse effect may be defined as a phenomenon that enables the earth's atmosphere to trap the heat from the sun and prevent it from escaping into the outer space, thereby warming the earth's surface.

Acid Rain

The burning of fossil fuels containing sulphur, nitrogen and carbon produces acidic oxides of these elements. Carbon dioxide, an oxide of carbon, dissolves in water droplets to produce carbonic acid (a weak acid).

The oxides of sulphur and nitrogen react with water to form sulphuric acid (H_2SO_4) and acid (HNO_3) respectively.

These acids come down to earth with rain water.

Water Pollution

Water is a natural resource. About seventy one percent surface of the earth is covered with water and is called hydrosphere. There is plenty of water on our planet, but its distribution is not uniform. About 97.4% of the total water on the earth is present in oceans. Only 0.01% of the total water on the earth, is available as freshwater, is used by us and other living beings. The water in the oceans is so salty that it cannot be used for most purposes.

Sources of Water Pollution

- ❖ Domestic waste
- ❖ Industrial waste
- ❖ Agricultural waste

Effect of Pollution on Water Bodies

- ❖ Oxygen Depletion
- ❖ Toxicity
- ❖ Algal bloom
- ❖ Water borne diseases