

Date ___/___/___ 4 Environmental Pollution

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* What is air pollution?

Air pollution occurs due to the presence of undesirable solid or gaseous particles in the air quantities that are harmful to human health and environment. Air may get polluted by volcano, which release ash, dust, Sulphur and other gases or by forest fire that are occasionally caused by lightning.

Air pollution can be controlled by two approaches: preventive technique and effluent control. One of the effective means of controlling air pollution is to have proper equipment in place. This include devices for recovery stems, filters, dry and wet collector, etc. Providing a greater height to the stacks can help in facilitating discharge of pollutant as far as away ground. Industry should be located in places so as to minimize the effect of pollution after considering topography and wind direction. Substitution of raw material that cause more pollution with those that cause less pollution can be done.

* Water Pollution:

When the quality or composition of water changes directly or indirectly as a result of man's activities such that it becomes unfit for any purpose it is said to be polluted. Although 71% of earth's surface is covered by water only a tiny fraction is fresh water. About 97% of total water is not suitable for drinking or for plantation. Remaining 3% is fresh water. of this 2.997% is locked in ice caps and glaciers. Thus only 0.003% of earth's total water is available to us.

- Causes of Water Pollution

There are several classes of common water pollutants. There are disease-causing agents which include bacteria, virus, worms that enter water from domestic sewage and untreated human and animal waste.

Control of Pollution: While foremost necessity is prevention. Setting up effluent treatment plants and treating water through these can reduce the pollution load in the recipient water. The treated can be reused for either gardening or cooling purpose wherever possible. A few years a new technology called the Reot Zone Process has been developed by Thermax. The microorganism oxidize impurities in wastewater, so that water which finally comes out is clean.

* Soil Pollution: We can no more manufacture a soil with tank of chemical. Then we can invent a rain forest or produce a single bird, we may enhance the soil by helping its processes along, but we can never recreate what we destroy. The soil is a resource for which there is no substitute.

- Causes of Soil degradation

1] Erosion

Soil erosion can be defined as the movement of surface litter and topsoil from one place to another.

While erosion is a natural process it is greatly accelerated by human activities such as farming, construction.

Control: There are several techniques that can protect soil from erosion. Today both water and soil are conserved through integrated treatment methods. Some of the most commonly employed methods:

- a) Area treatment which includes treating land
- b) Drainage line treatment which involves treating the natural water courses

* Noise Pollution:

Noise may not seem as harmful as the contamination of air or water but it is a pollution problem that affects human health and can contribute to a general deterioration of environment quality. Noise is undesirable and unwanted sound. Not all sound is noise. What may be considered as a music to one person may not be to other. Sound is measured in unit called "Decibel".

- Noise Control techniques:

There are four fundamental ways in which noise can be controlled. Reduce noise, block path of noise source, increase path length. In general best method is to reduce noise level. Source reduction can be done by effectively muffling vehicles and machinery to reduce noise. In industries it can be done by using rigid sealed enclosures around machinery lined with acoustic absorbing material.

• Essay on "How to minimize the effect of pollution".

It is more profitable to prevent pollution rather than deal with it after it has spread. To stop pollution before it is caused is best cure. Hence continuous modernization is equipment of environment management is also important. Where there is awareness among the people, the pressure on government to control pollution is more. Even here, it is difficult to change situation overnight. In order to address the problem before it arises, adoption of preventive measure is required. Whenever a development project is taken up, the proposed pollution control measure need to be incorporated into the environment assessment report. Any developmental activity is bound to cause damage to environment. So the public must be informed about it before the work is taken up. The developmental project must be strictly implemented as per agreed environmental management terms. Under the environment act, the State and central government have developed a mechanism. The points to tackle pollution at community level are as follow:

1) From childhood, children needs to be taught about public health and sanitation. They should be encouraged to participate in activities regarding these issues.

2) The people in area must learn to measure and estimate amount of pollution in surrounding and at their own expense. Only then will detoxification to prevent environment will arise.

- 3) The departmental role in improving the environment must be clearly specified in every sector. Based on their detail the departments should develop and implement program.
- 4) Where pollution is severe, authorities should conduct inspection and encourage industry to modernize with latest technology. The region between industries and residential areas should be covered with thick green belt.
- 5) To prevent migration from villages to cities, towns should be developed with clear foresight and commitment. Healthy living condition need to be provided in villages protecting lakes & trees. Commercial & Industrial areas need to be made and the restriction must be strictly enforced.
- 6) In cities and village, solid waste is being thrown into the lake. This mixes with water and pollute it. That is why waste is need to be separated into dry and wet waste.
- 7) Domestic waste should kept separate from hospital and industrial waste.
- 8) The wet waste from the cities should be turned into compost and must be returned to farm through agriculture markets.
- 9) Environmental protection is a joint effort. That is why churches, scientific institutions, government organization and college need to work together. They should keep the purity of air, water and land in areas.

16) Knowledge on biodiversity should be acquired and steps should be taken to protect it.

17) Near catchment of the rivers and hill slopes, trees need to be planted in watershed area to promote greenery. They need to use groundwater and surface water carefully.

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