

Q: WHAT ARE THE FACTORS RESPONSIBLE FOR ENVIRONMENTAL POLLUTION?

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- **BURNING OF FOSSIL FUELS**

When fossil fuels are burned, they release nitrogen oxides into the atmosphere, which contribute to the formation of smog and acid rain. The most common nitrogen-related compounds emitted into the air by human activities are collectively referred to as nitrogen oxides.

Major sources of nitrogen oxide emissions include:

- Cars and trucks
- Coal-fired power plants
- Large industrial operations
- Ships and airplanes

- **RAPID INDUSTRIALIZATION**

The Industrial Revolution impacted the environment. The world saw a major increase in population, which, along with an increase in living standards, led to the depletion of natural resources. The use of chemicals and fuel in factories resulted in increased air and water pollution and an increased use of fossil fuels.

- **MASSIVE DEFORESTRATION**

Forest/plantation are considered as carbon sinks(absorbs CO_2).as per global watch; more than 10 million hectares have been deforested in the world due to the humans over the past 4 years which resulted into decline in carbon sinks and sources of emission of CO_2 increased and create imbalance in the carbon level of atmosphere .

According to NOAA (national oceanic and atmospheric administration currently $\text{CO}_2=424\text{ppm}$ (parts per million).

- **ERRUPTION OF WILDFIRES**

Wildfire smoke is a mixture of hazardous air pollutants, such $\text{PM}_{2.5}$, NO_2 , ozone, aromatic hydrocarbons, or lead. In addition to contaminating the air with toxic pollutants, wildfires also simultaneously impact the climate by releasing large quantities of carbon dioxide and other greenhouse gases into the atmosphere.

- **POPULTAION EXPLOSION**

The rapid and dramatic rise in population of an area is termed as population explosion. Overpopulation can lead to dangerous impacts of pollution, depleted resources, habitat loss, etc. According to (US CENSUS BUREAU) currently the population is more than 8 billion. Increased in the number of people results into increased in production, industrialization, urbanization, transport, solid waste which are responsible for the addition of pollutants into the atmosphere.

- **URBANIZATION**

Urbanization refers to general increase in population and the amount of industrialization of a settlement. It includes increase in the number and extent of cities. It symbolizes the movement of people from rural to urban areas. Urbanization happens because of the increase in the extent and density of urban areas. According to UN (United Nations) almost 60% population is urban which was 54% in 2014. Urbanization processes roads, bridges, flyover, house- constructing which adds pollutants to the air.

- **GENERATION OF SOLID WASTE**

The collecting, treating, and disposing of solid material that is discarded because it has served its purpose or is no longer useful. Improper disposal of municipal [solid waste](#) can create unsanitary conditions, and these conditions in turn can lead to [pollution](#) of the [environment](#) and to outbreaks of vector-borne disease. Organic waste such as N₂O, CH₄, CO₂ are produced by industries, mining, domestic, municipal institutions. According to UNEP (United Nations Environmental Program) more than 350 million tons of plastics are produced globally and Pakistan produce 15 million tons of plastics as a waste production.