

About Air Pollution

Smoke-emitting vehicles plying on roads, chimneys of factories marring the air quality, heaps of garbage being openly burnt on road sides in backward countries, unrestrained burning of fossil fuels and indoor air exhaust owing to badly planned structure of homes has deprived us of the clean air to breath. According to a latest survey nearly 140 million people all around the world are forced to breathe polluted air because of living in an atmosphere below the minimum level of air quality standards. We may be part of this hapless lot of the people.

You may also read my article [Air Pollution](#)

What is air pollution?

Air pollution is contamination of air by the excess of various gases in the atmosphere. Usually air should have a moderate quantity of various gases and some of them are very essential to support the life like oxygen but the excess quantity of few of them is bad and in some cases worst for both the air quality of the environment and for the life of humans, animals and plants. It is generally said that many types of pollutions can be avoided for the time being or one can save oneself from their hazards but if there is pollution in the air you don't have any other option but to inhale it for your very survival. If we don't breathe the polluted air obviously we won't have this much resources and a luxurious lifestyle to keep an oxygen bag on our back all the time full of clean air to inhaled clean air.

What are the air pollutants?

There are three types of air pollutants.

Criteria air pollutants: These pollutants can be regulated with mitigation efforts and are the basic standard to evaluate the quality of air. Most important of them are carbon monoxide, lead, nitrogen dioxide, ozone, particles and sulfur dioxide.

Air toxics: These are the hazardous gases found in air in low concentration but are persistent enough to harm the environment and negatively impact the human, animal and plant life. Most of the air toxics are the result of motor vehicle emissions, solid fuel combustion, industrial emissions, and materials such as paints and adhesives in new buildings. Main hazardous gases under this category are: benzene, toluene, xylenes, formaldehyde and polyaromatic hydrocarbons.

Biological air pollutants: These pollutants are the outcome of the human activities. These are mostly produced by microbiological contamination like life remains of living beings including humans, animals and mainly insects which contaminate the air with emissions of smell and bacteria.

What are the sources of the air pollution?

The main sources of air pollution are:

Silencer of vehicles: One of the deadliest gases which come out of the silencer of the vehicle is carbon mono oxide which is a slow poison if persists in the air for a long time. It is said that in a closed room if .05 per cent carbon mono oxide is present in the overall air of that room the living being there may die very shortly.

Another emission is hydrocarbon which is not harmful in itself but if react with sunlight may convert into myriad of harmful chemicals causing various respiratory diseases. Two other gases in vehicular emissions are oxides of nitrogen and oxides of sulphur both have potential to bring on various diseases pertaining to air, nose, eyes and throat.

If adulterated fuel is used in vehicles as is being done in most of the developing countries the situation becomes more alarming. Vehicles with adulterated fuel also emit lead which if inhaled by human folk mixes in their blood and cause various serious disease related to heart and brain.

Chimney of industries: Industries emit various types of gases which vary from industry to industry depending upon the nature of their manufacturing process. Most dangerous of them is methane which played havoc once in an Indian city Bhopal where an industry accidentally emitted large amount of methane owing to lack of environment and safety standards causing thousands of deaths and leaving thousands of thousands physically and mentally impaired. Its causes can still be observed there where you can find so many people with scars on skin and other physical disorders.

Coal-fired power plants are one of the biggest sources of air pollution all around the world because they emit carbon dioxide in huge quantity far beyond the permissible limits.

Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone, and fluorinated gases (hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) are major green house gases (GHG) which trap temperature in atmosphere. Their emissions by industries in excess quantity cause climate change which depletes our natural resources most importantly our precious glaciers.

What are the effects of the air pollution?

The effects of air pollution are horrendous.

- It aggravates respiratory and cardiovascular diseases.
- It severely impacts the functioning of lungs to breathe properly.
- It weakens our respiratory system with high vulnerability.
- It not only affects our nervous system but also lower our IQ level.
- It causes cancer and premature death.

How to control the air pollution?

All of us have to play our role to control the air pollution. Pointing fingers at each other is so easy but the need of the hour is to control this menace at its source to hand over this world to our kids with an air quality not harmful for their breathing.

Role of the government: There are two pipes if regulated properly may help mitigate air pollution. One is the silencer of the vehicles and the other one is the chimney of the factory. Both can be regulated through green laws in each country and government can play an effective role to implement these laws properly. For this purpose all the governments have to admit that there is no alternate to control the air pollution if we really want to save the air quality from further degradation.

Role of the communities: Communities have stronger role to play for this cause because whatever they would do, it would be purely voluntary and on the call of their conscience. Vehicle owners should maintain their vehicles properly and keep its silencer without any flaw to emit less. Similarly industrialists should adopt a proper environment, health and safety plan in their industries to keep their emissions within permissible limits.

You may also read my [another article on this topic](#).

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