Source: https://www.conserve-energy-future.com/pollutiontypes.php

# **Pollution**

Pollution occurs when pollutants contaminate the <u>natural</u> surroundings; bringing about changes that affect our normal lifestyles adversely.

Pollutants are the key elements or components of pollution which are generally waste materials of different forms.

Pollution disturbs our <u>ecosystem</u> and the balance in the environment. With modernization and development in our lives, pollution has reached its peak; giving rise to <u>global warming</u> and human illness.

# Different Forms of Pollution:

Pollution occurs in different forms; air, water, soil, radioactive, noise, heat/ thermal, and light.

Every form of pollution has two sources of occurrence; the point and the non-point sources. The point sources are easy to identify, monitor, and control, whereas the non-point sources are hard to control.

To understand this occurrence better, let us now discuss the different types of pollution and their effects on mankind and the <u>environment</u> in general.

# Major Types of Pollution Affecting Our Planet:

Following is a list of the different types of Pollution that evidently destroy us and our earth.

#### 1. Air Pollution:

While there are many types of pollution, <u>Air Pollution</u> is probably the most prominent and dangerous form of it. Pollution may occur due to many reasons. Here's a brief list.

#### **Burning of Fuel:**

Excessive burning of fuel which is a necessity of our daily lives for cooking, driving, and other industrial activities; releases a huge amount of chemical substances in the air every day. Over time, these substances pollute the air.

### **Chimney Smoke:**

Another common cause of air pollution may be attributed to the smoke from chimneys, factories, vehicles, or the burning of wood. These activities, individually and collectively release sulfur dioxide into the air thereby making it toxic.

The <u>effects of air pollution</u> are evident too. The release of sulfur dioxide and other hazardous gases into the air causes <u>global warming</u> and <u>acid rain</u>; which in turn lead to increased temperatures, erratic rains, and droughts worldwide.

These effects don't just debilitate the lives of humans, but they also end up making it tough for the animals to survive.

As humans, we breathe in every polluted particle from the air which results in the potential chances of asthma and lung cancer. Either way, unless we address this issue, it may take a bigger and worse shape.

#### 2. Water Pollution:

<u>Water Pollution</u> has taken a toll on all the surviving species of the earth. Almost 60% of the species live in water bodies and when the water is polluted, it severely impacts their lives and hinders their health in general. But what are the specific causes of water pollution? Let's take a closer look.

#### Industrial Waste:

Water pollution may occur due to multiple factors. One of the biggest instances may be industrial water pollution where the industrial wastes are dumped into the rivers and other water bodies thereby causing an imbalance in the water. Over time, it leads to severe contamination thereby resulting in the death of aquatic species.

If you suspect that nearby water sources have been contaminated by a corporation then it might be a good idea to hire an expert to see your options.

#### **Groundwater Pollution:**

Water pollution may also be caused when insecticides and pesticides like DDT are sprayed on plants. While this may not seem much, over time, this simple activity <u>pollutes the groundwater</u> system which most of us use. If left unchecked for long, the same groundwater will turn out to be hazardous, leading to a range of health issues in the long run.

Note that in addition to the spraying of pesticides, groundwater may also be polluted from the toxic chemical spills occurring from industrial operations.

#### Oil Spills:

Oil spills in the oceans too have caused irreparable damage to the water bodies. Oil spills are usually caused due to accidents from large ships, tankers, or any other form of an oil pipeline.

## **Eutrophication:**

<u>Eutrophication</u> is another big source of water pollution, it occurs due to <u>daily activities</u> like washing clothes, utensils near lakes, ponds, or rivers; this forces detergents to go into the

water which blocks sunlight from penetrating, thus reducing oxygen and making it inhabitable.

Water pollution not only harms the aquatic beings but it also contaminates the entire food chain by severely <u>affecting humans</u> dependent on these. Water-borne diseases like cholera, diarrhea have also increased in all places.

#### 3. Soil Pollution:

<u>Soil pollution</u> occurs due to the incorporation of unwanted chemicals in the soil due to human activities. The use of insecticides and pesticides absorbs the nitrogen compounds from the soil making it unfit for plants to derive nutrition from.

The release of <u>industrial waste</u>, mining, and <u>deforestation</u> also exploits the soil. Since plants can't grow properly, they can't hold the soil which in turn leads to <u>soil erosion</u>.

#### 4. Noise Pollution:

**Noise pollution** is caused when noise which is an unpleasant sound affects our ears and leads to psychological problems like stress, hypertension, hearing impairment, etc. It is caused by machines in industries, loud music, noise from traffic, noise fro construction activities, and so on.

As with the other forms of pollution, noise pollution is extremely dangerous and can lead to multiple fatalities in both humans and animals.

In humans, it affects our overall well-being, sleep, and total hours of rest. It may also adversely impact the development of kids and create an imbalance in the blood pressure and heart rate of elderly individuals.

#### 5. Radioactive Pollution:

<u>Radioactive pollution</u> is highly dangerous when it occurs. It can occur due to nuclear plant malfunctions, improper nuclear <u>waste disposal</u>, accidents, etc. It causes cancer, infertility, blindness, defects at the time of birth; it can sterilize soil and affect air and water.

# 6. Thermal/Heat Pollution:

<u>Thermal/heat pollution</u> is due to the excess heat in the environment creating unwanted changes over long time periods; due to the huge number of <u>industrial plants</u>, <u>deforestation</u>, urban sprawl, and air pollution. It increases the earth's temperature, causing drastic <u>climatic changes</u> and extinction of wildlife.

Thermal pollution can result in an increase in temperature and can prove to be disastrous for humans and wildlife. The increase in temperature can make wildlife populations vulnerable and they may never be able to recover.

## 7. Light Pollution:

<u>Light pollution</u> occurs due to prominent excess illumination of an area. It is largely visible in big cities, on advertising boards and billboards, in sports or entertainment events at the night.

In residential areas, the lives of the inhabitants are greatly affected by this. It also affects astronomical observations and activities by making the stars almost invisible.

# Serious Effects of Pollution on Our Humans and Environment

# 1. Environment Degradation:

The environment is the first casualty for the <u>increase in pollution</u> weather in air or water. The increase in the amount of CO2 in the atmosphere leads to smog which can restrict sunlight from reaching the earth.

This very scenario affects the process of photosynthesis in plants, thereby hindering their growth. Gases like Sulfur dioxide and nitrogen oxide can also cause <u>acid rain</u>. Again, water pollution in terms of the <u>oil spill</u> may lead to the death of several wildlife species.

#### 2. Human Health:

The decrease in the <u>quality of air</u> leads to several respiratory problems including asthma or lung cancer. Chest pain, congestion, throat inflammation, cardiovascular disease, respiratory disease are some of the diseases that can be <u>caused by air pollution</u>.

Water pollution occurs due to <u>contamination of water</u> and may pose skin related problems including skin irritations and rashes. Similarly, <u>noise pollution</u> leads to hearing loss, stress, and sleep disturbance.

It is worth noting that while the results of pollution tend to vary, it has one specific impact: degrading the quality of human life. Pollution has an adverse impact on humans in general and regardless of its extent, all of us have encountered its ill-effects at some point of time or the other.

# 3. Global Warming:

The emission of <u>greenhouse gases</u> particularly CO2 is leading to <u>global warming</u>. Every other day new industries are being set up, new vehicles come on roads and trees are cut to make way for new homes.

All of them, in a direct or indirect way, lead to an increase in CO2 in the environment. The increase in CO2 leads to the melting of polar ice caps which increases the sea level and pose danger for the people living near coastal areas.

It is worth noting that Global Warming is almost entirely caused by humans and unless we check our pollution levels, it can completely destroy the world as we know it.

While Global Warming is already a reality, when it becomes even more pronounced over the next few years, we will possibly encounter the worst. There will be fluctuations in temperature, a significant and persistent temperature rise, forest fires, and so much more.

# 4. Ozone Layer Depletion:

The <u>ozone layer</u> is the thin shield high up in the sky that stops ultraviolet rays from reaching the earth. As a result of human activities, chemicals, such as chlorofluorocarbons (CFCs), are released into the atmosphere thereby contributing to the <u>depletion of the ozone layer</u>.

#### 5. Infertile Land:

Due to the constant use of insecticides and pesticides, the soil may become infertile. Plants may not be able to grow properly. Various forms of chemicals produced from industrial waste are released into the flowing water which also affects the <u>quality of the soil</u>.

#### **Bottom Line:**

Pollution not only affects humans by destroying their respiratory, cardiovascular, and neurological systems; it also affects the nature, plants, fruits, vegetables, rivers, ponds, forests, animals, etc, on which they are highly dependent on survival. It is crucial to control pollution as nature, wildlife and human life are precious gifts to mankind.

Remember, unless we embrace sustainable living, go green, and take tangible steps to lie with less- our world is likely to witness dramatic transformations due to pollution. So, follow the right guidelines and take the right steps to make way for a better world.