

Pollution

Pollution is the introduction of contaminants into the natural environment that cause adverse change. Pollution can take the form of chemical substances or energy, such as noise, heat or light. Pollutants, the components of pollution, can be either foreign substances/energies or naturally occurring contaminants. Pollution is often classed as point source or nonpoint source pollution. In 2015, pollution killed 9 million people in the world.

Major forms of pollution include: Air pollution, light pollution, littering, noise pollution, plastic pollution, soil contamination, radioactive contamination, thermal pollution, visual pollution, water pollution.

Pollution throughout history

Prehistory

Since the ancient Stone Age, the human race had some effects on the environment. Man's attempt to ignite the fire was having bad effects on it. The manufacture of tools in the Iron Age by sharpening minerals led to small chips and trying to extract slag from them to form them into images that can be used in daily life to accumulations Minor environmental pollutants.

Advanced civilizations

The first advanced civilizations of Mesopotamia , and in Egypt , India , China , Persia , Greece and Rome increased the use of water to manufacture goods, which increased levels of environmental pollution, yet pollution at that time did not disrupt environmental regulations.

In the Middle Ages

Population growth increased near the end of the Middle Ages and concentrated more inside the cities, creating hotbeds of pollution that contributed to the spread of infectious diseases such as bubonic plague .

In the modern era

Pollution became a popular issue after the Second World War , and the use of nuclear weapons in it, which led to the emergence of many laws and treaties that call for combating pollution.

The nature of the pollution

It divides the pollution given the nature or given the type of material contaminated to:

Chemical contamination

Chemical pollution means pollution with manufactured chemicals, whether those that are used for special purposes such as cleaning materials and car oils or those that are produced as a

by-product of the industrial process, and these materials can be dumped into waterways or spread into the air, causing environmental pollution, and this type of pollution with very serious effects on the various elements of the environment. The effects of this type of pollution appeared clearly in the second half of the twentieth century as a result of the tremendous industrial progress that he witnessed, especially in the field of chemical industries. The effects of chemical pollution may reach food through the use of materials clipboard, colors, dyes, and gains taste smell in the food industry, and the role of these substances in causing malignant carcinomas has been proven beyond reasonable doubt.

The lead and hydrogen sulfide compounds of mercury, cadmium, arsenic and compounds of cyanide, pesticides and chemical fertilizers and oil from the most polluting substances harmful to the environment, the health of human, and chemical pollution caused by industrial accidents in factories as a result of not taking the necessary precautions to prevent such kind of accidents from occurring, industrial accidents have drawn the world's attention to the pollution caused by them, and have prompted many bodies and governments to pay attention to the necessity of developing an international program that includes setting safe and tight regulations related to the manufacture of chemicals, and the methods of transporting and storing them and

to impose permanent supervision on them in order to preserve the lives of workers in these factories, and to preserve the environment surrounding these industries .

Biological pollution

Biological or biological pollution is considered one of the oldest forms of pollution known to man, and this pollution arises as a result of the presence of visible or invisible living organisms , plants or animals such as bacteria, fungi and others in the environmental medium such as water, air or soil. Mixing disease-causing organisms with food that is eaten by humans or water. what he drinks or the air that he inhales causes biological pollution, which leads to disease.

Biological contamination occurs when sewage and sewage disposal - before they are chemically treated - by dumping them into fresh water resources, or because household garbage is spread in the streets without observing the health rules in collecting, transporting, and disposing of them in a scientific way, or because the dead animals are left out in the open or discarded in Water resources, as well as when healthy methods of food preservation and manufacture are not followed, which exposes them to pollution.

Radioactive contamination

Radioactive contamination means the leakage of radioactive materials into one of the components of the

environment, such as water, air, and soil. It is considered one of the most dangerous types of environmental pollution in our time, as it is not seen, smelled, does not feel, and is easy and easy. The radiation is transmitted and infiltrates into living organisms everywhere without any resistance, And without evidence of its presence, and without first leaving an impact, and when radioactive materials reach the cells of the body, they cause apparent and inward damage that often leads to human life, and radioactive pollution may occur from natural sources such as the rays from outer space and the radioactive gases rising from the crust Earth , or Sources of Industrial nuclear power stations of atomic reactors and radioactive isotopes used in industry, agriculture, medicine or other.

Noise pollution

Noise or noise pollution includes road noise, aircraft noise, industrial noise and sonar noise , and is considered one of the types of dangerous pollution, especially in major cities where it leads to fatigue, stress and sleep disorders, so the cholesterol level in the blood increases, the pupil expands, and the endocrine work is disturbed, The Nazis and the Zionists used noise pollution on their prisoners so that they could not sleep, causing them psychological and nervous breakdowns, and this is one of the methods of brainwashing.

Noise pollution damages

Noise causes a lot of damage to a person, including what is psychological, nervous, physiological, etc. Examples include:

- Permanent hearing damage .
- The occurrence of mental disorders in the form of anxiety and confusion.
- Physiological disorders as a result of the psychological state, such as headache.
- The human productivity decreases, so it is scientifically proven that noise causes about 50% of mechanical errors, which is equivalent to 20% of occupational accidents.

Thermal pollution

Thermal pollution means the change in temperature of natural water bodies as a result of human activity, such as the use of water for cooling in power stations.

Light pollution

Light pollution occurs due to excessive lighting.

Optical pollution

The term visual pollution refers to any scene where a person feels annoyed and uncomfortable when his eyes fall on him.

Air pollution

Air pollution is a serious threat to human health around the world. According to the environmental assessment issued by the United Nations Environment Program (UNEP), about 900 million urban residents, most of them in developing countries, are exposed to unhealthy levels of carbon dioxide.

Sources of pollution

Based on its source, pollution is divided into two types: natural pollution and industrial pollution.

Natural pollution

It is pollution whose source is due to natural phenomena that occur from time to time, such as volcanoes, thunderbolts, and storms that may carry huge amounts of sand and dust, and destroy crops and crops. So natural pollution is its sources of natural origin, and there is no income for man in it, and then it is difficult to monitor this Pollution or its prediction and control completely, and this pollution has existed since ancient times without constituting a disturbing phenomenon to humans.

Industrial pollution

Industrial pollution results from human action and activity, and finds its source in man's industrial, service, and recreational activities, etc., and in its increasing uses of modern technology manifestations and its various innovations. It goes without

saying that industrial activities are fully responsible for the emergence of the pollution problem in our time, and reaching this dangerous degree that threatens life And human survival on the surface of the earth, and among the most important sources of industrial pollution: industrial and commercial waste and what is emitted by car exhaust, and factory chimneys that leave toxic CFCs, and others.

The severity of industrial pollution depends on several factors, including:

- The area from which industrial pollutants are emitted or discharged.
- Pollution time period.
- The degree of concentration of pollutants.
- Physical, chemical and biological properties of pollutants.
- Decomposition and assimilation in the environmental environment in which it is placed.
- The degree of toxicity in relation to humans and other organisms.

Industrial pollutants are divided into three types:

1. Solid pollutants, which are pollutants resulting from many industries, such as dust, caused by the cement industry, for example.

2. Liquid pollutants such as chemical solutions that are thrown by factories in waterways.
3. Gas pollutants such as gases and harmful smoke from industrial chimneys and oil refineries.