

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.



- **Environmental Pollution**

- People have always polluted their surroundings. But until now pollution was not such a serious problem. People lived in uncrowded rural areas and did not have pollution — causing machines. With the development of crowded industrial cities which put huge amounts of pollutants into small areas, the problem has become more important.
- Automobiles and other new inventions make pollution steadily worse. Since the late 1960's people have become alarmed with the danger of pollution.
- Air, water, and soil are necessary for existence of all living things. But polluted air can cause illness, and even death. Polluted water kills fish and other marine life. On polluted soil, food can not be grown. In addition environmental pollution spoils the natural beauty of our planet.
- Pollution is as complicated as serious problem. Automobiles are polluting the air but they provide transportation for the people. Factories pollute the air and the water but they provide jobs for people and produce necessary goods. Fertilizers and pesticides are important for growing crops but they can ruin soil.
- Thus, people would have to stop using many useful things if they wanted to end pollution immediately. Most people do not want that of course. But pollution can be reduced gradually.
- Scientists and engineers can find the ways to reduce pollution from automobiles and factories. Government can pass the laws that would make enterprises take measures for reducing of pollution. Individuals and groups of people can work together to persuade enterprises to stop polluting activities.

# ➤ Kinds of pollution

➤ kinds of pollution

## 2. Water Pollution



## 1. Air Pollution



## 3. Soil pollution



# Water Pollution



# Water pollution

- **Water pollution** is the contamination of water bodies (e.g. lakes, rivers, oceans, aquifers and groundwater). This form of environmental degradation occurs when pollutants are directly or indirectly discharged into water bodies without adequate treatment to remove harmful compounds.
- Water pollution affects the entire biosphere – plants and organisms living in these bodies of water. In almost all cases the effect is damaging not only to individual species and population, but also to the naturalbiological communities.



Water pollution



# Air Pollution





# Air pollution

There's nothing quite like opening the door and breathing fresh, clean, air—but how clean is the air you're breathing right now? Unless you're a scientist with a chemistry lab at your fingertips, there's no real way of knowing. The gases you're sucking up through your nose could be slowly killing you: according to the World Health Organization, around two million people die prematurely from the effects of polluted air every single year. Air pollution is a huge problem—and not just for people living in smog-choked cities: through such things as global warming and damage to the ozone layer, it has the potential to affect us all. So what exactly causes this major environmental issue and what can we do about it? Let's take a closer look!



- Air pollution



A photograph of a dry, cracked desert landscape. The ground is parched and broken into irregular, polygonal shapes, indicating severe drought. The background shows a flat, arid plain extending to a low horizon under a clear blue sky. The word "soil" is written in a large, white, stylized font with a black outline, positioned in the upper half of the image.

soil

pollution

# Soil pollution

**Soil contamination** or **soil pollution** is caused by the presence of xenobiotic chemicals or other alteration in the natural soil environment. It is typically caused by industrial activity, agricultural chemicals, or improper disposal of waste. The most common chemicals involved are petroleum hydrocarbons, polynuclear aromatic hydrocarbons (such as naphthalene and benzo(a)pyrene), solvents, pesticides, lead, and other heavy metals. Contamination is correlated with the degree of industrialization and intensity of chemical usage.

- The concern over soil contamination stems primarily from health risks, from direct contact with the contaminated soil, vapors from the contaminants, and from secondary contamination of water supplies within and underlying the soil. Mapping of contaminated soil sites and the resulting cleanup are time consuming and expensive tasks, requiring extensive amounts of geology, hydrology, chemistry, computer modeling skills, and GIS in Environmental Contamination, as well as an appreciation of the history of industrial chemistry



## ● Soil pollution



# LAND POLLUTION

What is land pollution?

Causes of Land Pollution

Soil layer

Effects on the Environment

Main Soil pollutant

Ways to prevent or minimize the problem

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# Land pollution

What's beneath your feet? Maybe a wooden floor or a stone one... and, beneath that? Brick foundations, water pipes, power cables... and who knows what else. Keep going down and you'll come to soil, rocks, and the raw stuff of Earth. We imagine these basic foundations of our planet to be a kind of pristine, internal wilderness—but often that's far from the case. While we can see many of the changes we've made to the world, some of our impacts are virtually invisible, and **land pollution** is a good example. You might see factory smoke rising through the air or oil slicks drifting over the ocean, but you can't easily see the poisons that seep from underground mines, the garbage we tip into landfills by the truckload, or the way the very soil that feeds us is turning slowly to dust. Land pollution, in short, is a much bigger and more subtle problem than it might appear. How does it occur and what can we do about it? Let's take a closer look!



**KEEP  
CALM**

**AND**

**STOP**

**AIR POLLUTION**



STOP  
Pollution

123RF®

GO  
GREEN



**THANK YOU**  
for your  
**ATTENTION!**