

Essential Standard

8.PCH.3

Analyze measures necessary to protect the environment.

Clarifying Objective

8.PCH.3.1

Outline the potential health consequences of global environmental problems.

World of 7 Billion

Thoughts to extract from the poster:

- 1. Overpopulation corresponds with our use of limited natural resources.**
- 2. Increases in population have corresponded to increases in pollution and garbage.**
- 3. Underdeveloped countries show the highest rates of fertility, insinuating that education and equal opportunity leads to a higher quality of sustainable living.**

Environmental Health Problems



Acid Rain

Acid Rain clip

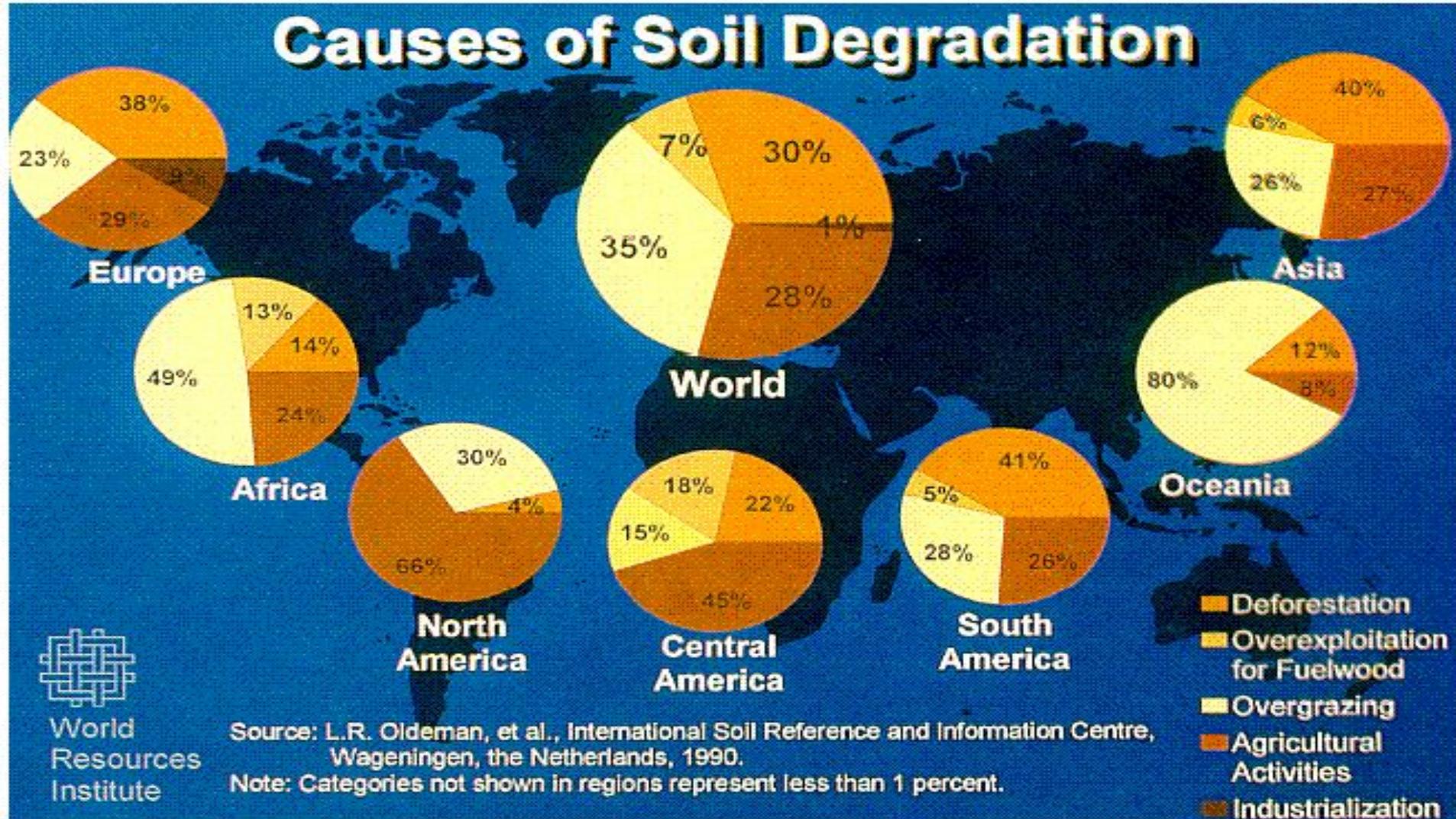




Land degradation

Land Degradation

Causes of Soil Degradation





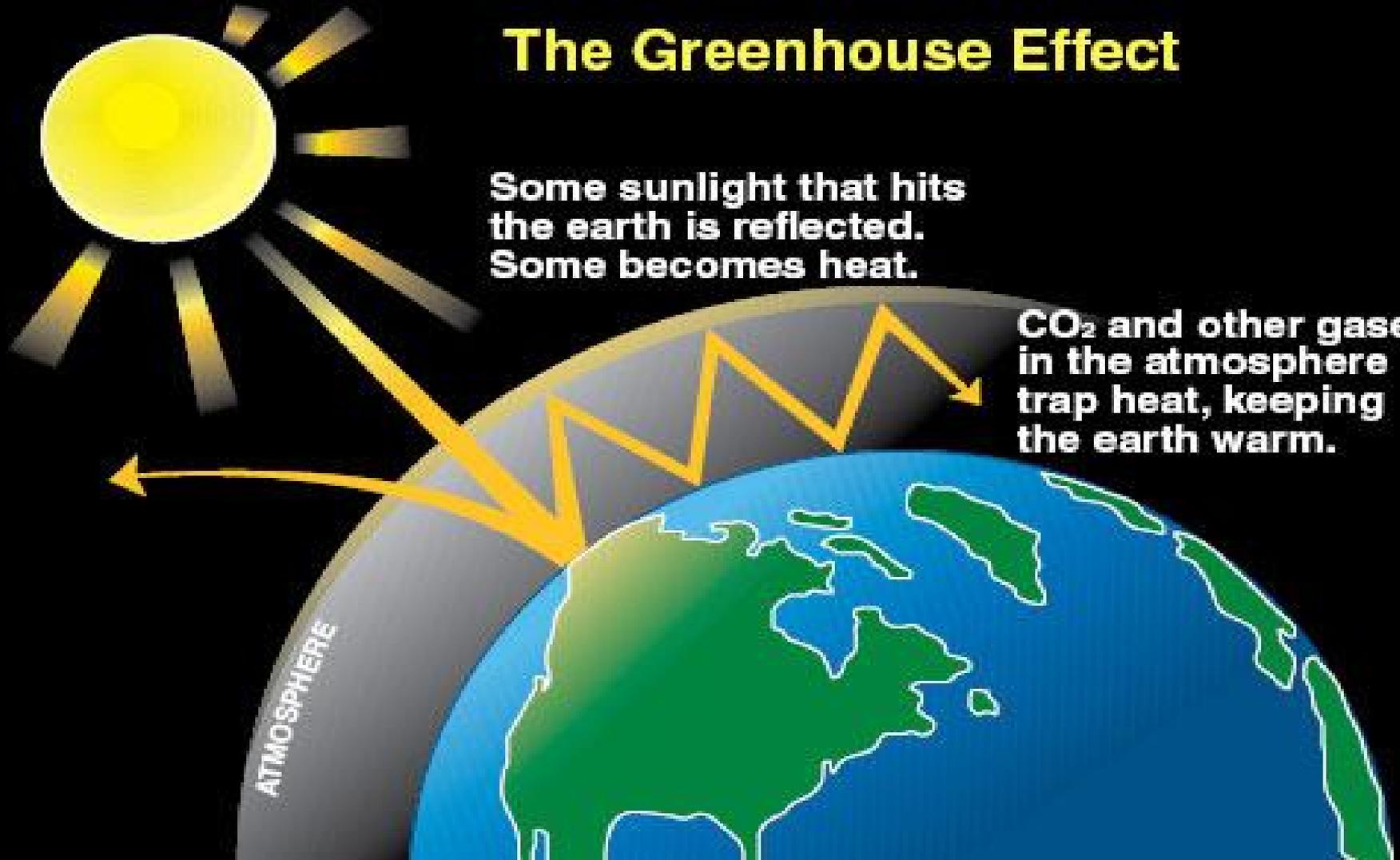
Greenhouse Effect

Greenhouse Effect Mythbusters

The Greenhouse Effect

Some sunlight that hits the earth is reflected. Some becomes heat.

CO₂ and other gases in the atmosphere trap heat, keeping the earth warm.

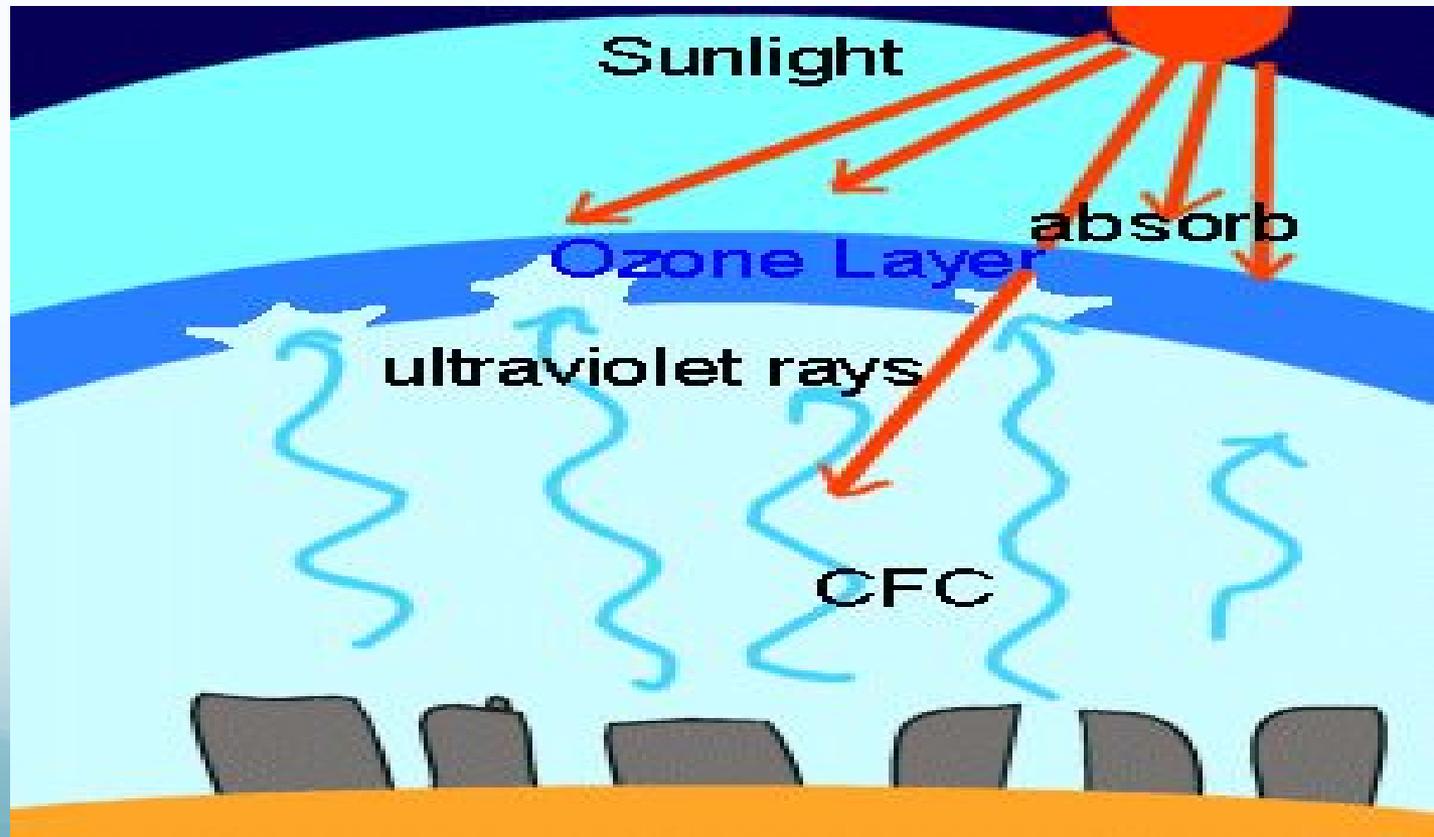




Depletion of Ozone Layer

Ozone

Due to the depletion of the Ozone Layer, humans are more susceptible to UV rays, making overexposure to sunlight a greater concern.

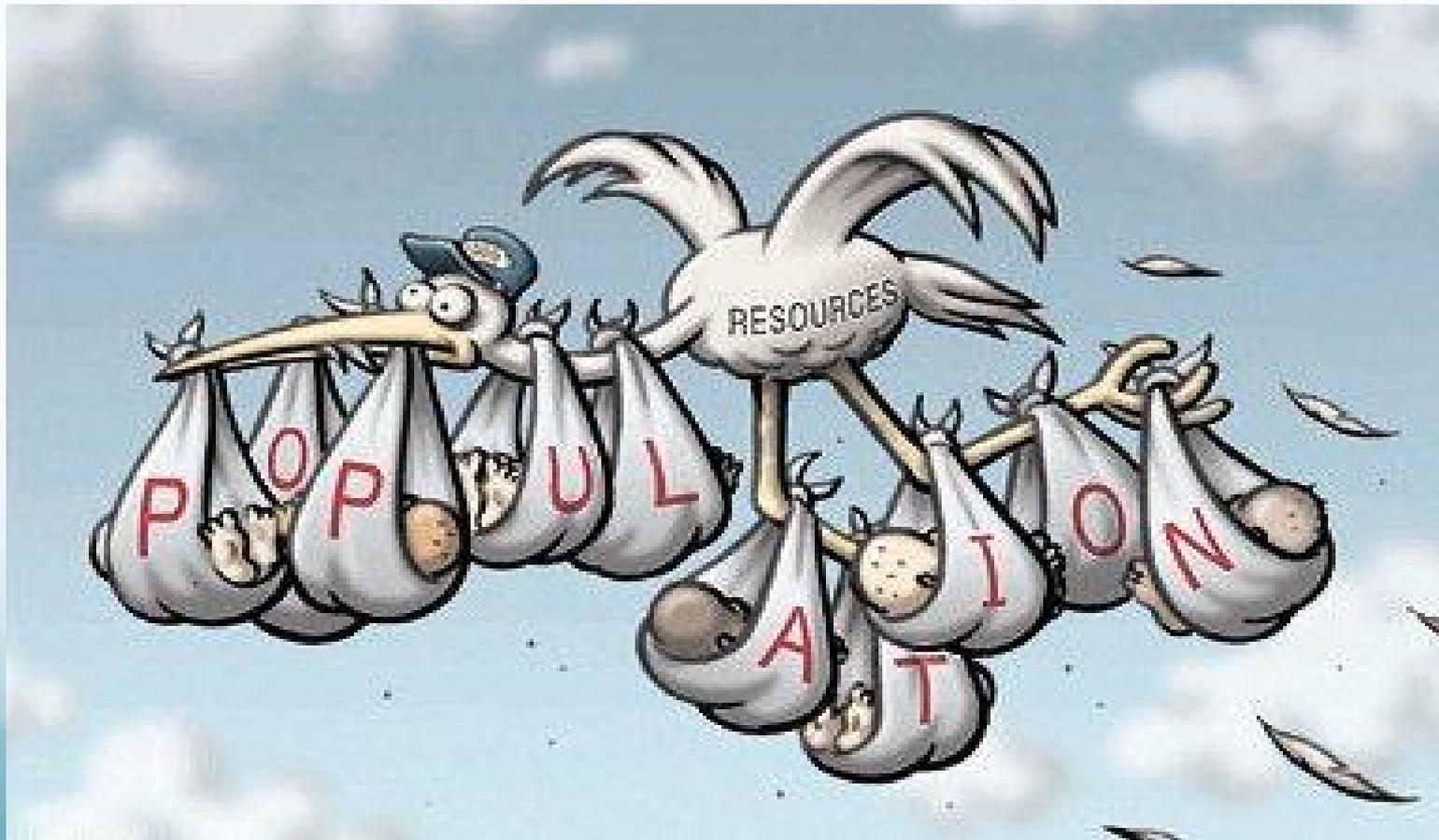


Overpopulation

3-7billion from 1960-2011

Overpopulation

We live in a world of limited resources.



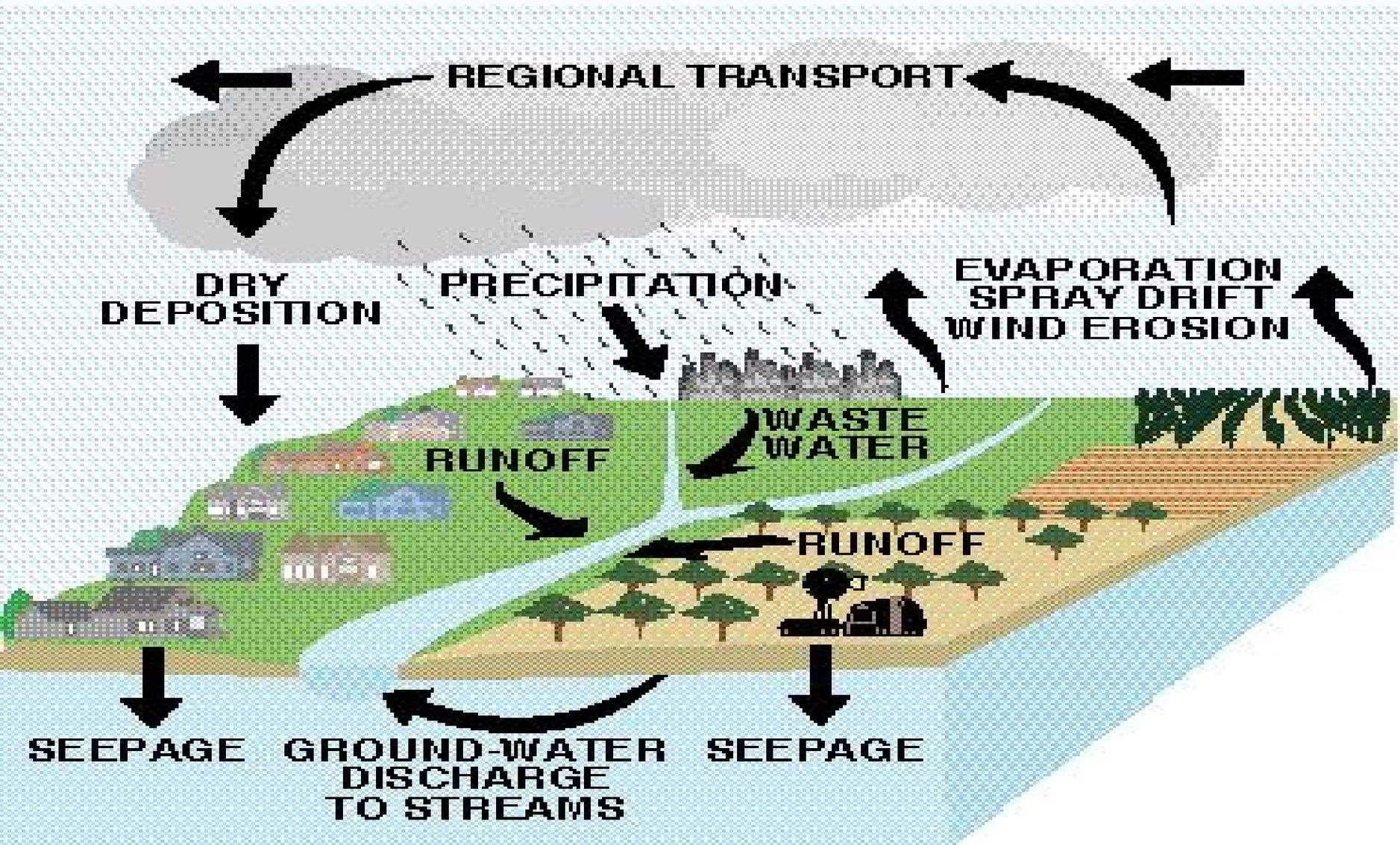
**WARNING
PESTICIDES**



**FIRE WILL CAUSE
TOXIC FUMES**

Water Pollution

[water pollution clip](#)



Video and Articles

- [Air Quality](#)
- [Cleaning the Air](#)
- [Air Pollution](#)

Outdoor Air Pollution

Health effects span a wide range of severity from coughing and bronchitis to heart disease and lung cancer. Vulnerable groups include infants, the elderly, and those suffering from chronic respiratory conditions including asthma, bronchitis, or emphysema. Many of air pollution's health effects, such as bronchitis, tightness in the chest, and wheezing, are acute, or short-term, and can be reversed if air pollution exposures decline. Other effects appear to be chronic, such as lung cancer and cardiopulmonary disease.

The Greenhouse Effect

Climate change may affect people's health both directly and indirectly. For example, heat stress and other heat related health problems are caused directly by very warm temperatures and high humidity. Untreated, heat stress can be a very serious medical problem. Scientists suspect that, in many places, global warming will increase the number of very hot days that occur during the year. More hot days increase the possibility of heat related illness and deaths.

Depletion of the Ozone Layer

UVB is a kind of ultraviolet light from the sun (and sun lamps) that has several harmful effects, particularly effective at damaging DNA. The ozone layer protects the Earth against most UVB coming from the sun. All sunlight contains some UVB, even with normal ozone levels. Ozone depletion will increase the amount of UVB, which will then increase the risk of health effects. UVB is a cause of melanoma and other types of skin cancer as well as being linked to cataracts. Other health effects include photo keratoconjunctivitis and suppression of immune system, therefore increasing risk of infection.

Acid Rain

'Acid rain' is a broad term used to describe several ways that acids fall out of the atmosphere (in rain, snow, or fog). About half of the acidic gases and particles in the atmosphere fall back to earth. This acidic water flows over and through the ground and affects a variety of plants and animals. Human health is compromised because of reliance on fish, trees, and other living things that rely on the water.

Land Degradation

(erosion, flooding, strip mining, paving)

Land degradation can adversely affect human health by changing the ecology of pathogenic and harmful organisms. For example, chemical fertilizers, pesticides, herbicides and fungicides applied to food crops can be leached into groundwater supplies, thus contaminating downstream and underground water. Health effects include decline in agricultural productivity and exposure to higher levels of pesticides and fertilizers.

Overpopulation

A few years ago, the world population reached six billion and we are adding another billion every 14 years. Overpopulation compromises human health in a variety of ways, the most important of which is diminishing resources: food, water, fuel, and materials for construction. Mental health as well as physical health is hurt by the stress and violence that occur in overcrowded conditions.

Dealing with Garbage (solid waste)

With increase in the global population and the rising demand for food and other essentials, there has been a rise in the amount of waste being generated daily by each household. Waste that is not properly managed, especially sewage and other liquid and solid waste from households and the community, are a serious health hazard and lead to the spread of infectious diseases. Unattended waste lying around attracts flies, rats, and other creatures that in turn spread disease. Waste from agriculture and industries can also cause serious health risks.

Destruction of Tropical Rain Forests

Over one-half of the Earth's species of plants and animals live in rainforests, even though they cover only 2% of the Earth's surface. About one-fourth of medicines used today were developed from species found in rainforests. Many plant foods that we consume come from rainforests. Fifty million acres of rainforest is destroyed every year, which contributes to the Greenhouse Effect due to carbon being released into the atmosphere.

Water Pollution

One of the most important resources we have is water. We would simply die without it. A person can live without food for several weeks, but would die in less than a week without water. The world's population needs water for drinking, growing food, washing, industry, and recreation. When waterways are polluted, food sources from the sea are endangered. Water-borne diseases, also known as "dirty water" diseases, result from using water contaminated by human, animal, or chemical wastes. These diseases cause an estimated 12 million deaths a year, 5 million of them from diarrheal diseases. Most of the victims are children in developing countries.