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Impact of Environmental Pollution in Society

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Abstract
Environmental pollution is a crucial global concern. Many pollutants such as and pharmaceutical compounds, heavy metals and industrial dye compounds in environmental samples display hazardous effects to humans, animals and plants. Therefore, the careful monitoring of these pollutants in environmental samples is very important. Types of human pollution would be air, water, soil, radioactive, thermal, noise, and light. Each of these forms of pollution has been known to cause the enormous amount of concern for the environment. There are laws in place now that are limiting pollution and to help control the issue. Environmental pollution is a serious problem we are facing globally. It is the debate concerning pollution, which we have been pondering for the past century.

Keywords: Environmental pollution, society, pollutants.

Introduction

Pollution is the introduction of harmful materials into the environment. These harmful materials are called pollutants. Pollutants can be natural, such as volcanic ash. They can also be created by human activity, such as trash or runoff produced by factories. Pollutants damage the quality of air, water, and land. All living things-from one-celled microbes to blue whales-depend on Earth's supply of air and water. When these resources are polluted, all forms of life are threatened. Pollution is a global problem. Although urban areas are usually more polluted than the countryside, pollution can spread to remote places where no people live. For example, pesticides and other chemicals have been found in the Antarctic ice sheet. In the middle of the northern Pacific Ocean, a huge collection of microscopic plastic particles forms what is known as the Great Pacific Garbage Patch.

Types of Pollution

The three major types of pollution are

1. Air pollution
2. Water pollution
3. Land pollution

Air Pollution

At times, air pollution can be seen. For example, the exhaust pipes of huge trucks or factories can be seen to spew dark smoke. Nonetheless, air pollution is typically undetectable. Polluted air can be dangerous, even if the pollutants are invisible. It can make people's eyes burn and make them have difficulty breathing. It can also increase the risk of lung cancer. Natural disasters can also cause air pollution to increase quickly. When volcanoes erupt, they eject volcanic ash and gases into the atmosphere. Volcanic ash can discolor the sky for months. Most air pollution is not natural, however. It comes from burning fossil fuels-coal, oil, and natural gas. When gasoline is burned to power Cars and trucks emit carbon monoxide, a colorless and odorless gas. The gas is harmful in high concentrations, or amounts. City traffic produces highly concentrated carbon monoxide.

Greenhouse gases are another source of air pollution. Greenhouse gases such as carbon dioxide and methane occur naturally in the atmosphere. In fact, they are necessary for life on Earth. They absorb sunlight reflected from Earth, preventing it from escaping into space.

By trapping heat in the atmosphere, they keep Earth warm enough for people to live. This is called the greenhouse effect. However, human actions like the combustion of fossil fuels and the destruction of forests have increased the atmospheric concentration of greenhouse gases. As a result, the greenhouse effect has intensified and global average temperatures are rising. The warmest decade on record started in the year 2000. Global warming is the term used to describe this rise in average global temperatures that is partially due to human activity.

Water Pollution

Certain contaminated water has floating trash, a muddy appearance, and an unpleasant scent. Certain dirty water appears clear, but it contains dangerous substances that are invisible to the naked eye or nose.

It is dangerous to swim or drink in contaminated water. Some individuals who consume contaminated water may be exposed to dangerous substances that cause illness years later. Others eat disease-causing germs and other microscopic water critters. According to UN estimates, drinking contaminated water causes 4,000 deaths among children per day.

Water pollution is also caused by human activity. Factory oils and chemicals are occasionally poured into rivers or leak into them. We refer to these substances as runoff. Aquatic life may find itself in a harmful environment due to chemicals in runoff. Runoff has the potential to foster a favorable habitat for blue-green algae, or cyan bacteria. A toxic algal bloom is produced by the fast reproduction of cyan bacteria (HAB). The presence of harmful algal blooms keeps fish and other marine life from thriving. They are linked to "dead zones" in the lakes and rivers of the world, which are areas with minimal subsurface life.

Water pollution can also be caused by drilling and mining. One of the main causes of river and stream contamination close to coal mines is acid mine drainage, or AMD.

Water pollution is frequently caused by improperly treated sewage. Sewage treatment plants and sewage networks are often in bad condition in many places worldwide. In India, the capital city of Delhi is home to around 21 million people. The Yamuna River receives more than half of the city's sewage and other garbage disposal. The river is unsafe to use as a source of water for drinking or personal hygiene because of this contamination. Additionally, it lessens the river's fisheries, which means that the neighborhood will have less food.

Land Pollution

Numerous contaminants that contaminate water also have negative effects on land. Hazardous chemical contamination of the soil can occasionally result from mining.

The wind carries fertilizer and pesticides from agricultural areas. They may cause harm to people, animals, or plants. Certain fruits and vegetables take up the pesticides used to aid in their growth. Pesticides enter people's bodies when they eat fruits and vegetables. A few chemicals have been linked to cancer and other illnesses.

(A pesticide called DDT (dichlorodiphenyltrichloroethane) was once commonly used to kill insects, especially mosquitoes. In many parts of the world, mosquitoes carry a disease called malaria, which kills a million people every year. Swiss chemist Paul Hermann Muller was awarded the Nobel Prize for his understanding of how DDT can control insects and other pests. DDT is responsible for reducing malaria in places such as Taiwan and Sri Lanka) DDT, or dichloride phenyl trichloroethane, was a pesticide that was previously widely employed to eradicate insects, particularly mosquitoes. A million people die from malaria each year, a disease spread by mosquitoes in many regions of the world. Paul Hermann Muller, a Swiss chemist, won the Nobel Prize for his discovery of how DDT suppresses insects and other pests. Malaria has decreased in areas like Taiwan and Sri Lanka because to DDT.

Another type of pollution on land is trash. Paper, cans, glass jars, plastic items, abandoned autos, and appliances blight the landscape all across the world. It is more difficult for plants and other food web producers to produce nutrients when there is litter around. If animals inadvertently consume plastic, they may die. Dangerous contaminants like oils, chemicals, and ink are frequently found in garbage. These toxins have the potential to damage people, animals, and plants by seeping into the soil. Landfills are not always totally enclosed from the surrounding area. As they are buried, pollutants seep into the surrounding soil from the landfill. Earthly plants have the potential to become contaminated, and herbivores that consume them can also become contaminated. Predators that eat herbivores also do this. Bioaccumulation is the process by which a chemical accumulates at every stage of the food chain.

Impact of Pollution

i) Economic Growth: Some businesses, like mining and manufacturing, depend heavily on activities that cause pollution. In the areas where they operate, these industries promote economic growth and create job possibilities.
ii) Technological Innovation: As a result of the necessity to solve pollution-related challenges, cutting-edge technologies aiming at lowering emissions and enhancing environmental sustainability have been developed. These developments propel innovation and success across a range of industries.
iii) Benefits for Agriculture: By reducing pests and enhancing soil fertility, certain types of pollution, such fertilizers and pesticides, can raise agricultural production and boost crop yields.
iv) Energy Production: Although detrimental, pollution resulting from the burning of fossil fuels has made energy widely available for the production of power, transportation, and heating-all necessities of contemporary life.

Disadvantages

- Contamination of drinking water
- Polluted soil, which leads to a loss of fertile land for agriculture and a reduction in the availability of food
- Climate change, which causes an onslaught of disastrous problems, including flash floods and irregular rainfalls
- The endangerment and extinction of species in wildlife Habitat destruction, where animals and plants wiped out in certain areas
- Habitat shifting, where animals are forced to flee where they live in order to survive An increase in wildfires due to polluted areas often becoming very dry
- Increased air pollution, which burning waste contributes to Increased soil pollutants can enter the body through the food chain and cause health issues Increased human health issues,
- Including cancer, respiratory illnesses and congenital disabilities, caused by exposure to harmful chemicals.

Prevention of the Pollution

We have a lot of options for minimizing our environmental effect. We can lessen dangerous emissions into our air, land, and water if everyone uses energy, transportation, and other goods and services more responsibly. Daily decisions have the ability to change the world and contribute to environmental preservation for a sustainable and clean future.

Some steps to Prevent Pollution

Preserve water: Steer clear of excessive use of water, like dishwashing with running water. Make use of energy-efficient appliances: Select heating systems and appliances that are efficient. Take public transportation: Rather than driving, take public transportation, walk, or ride a bike. To lessen air pollution, give up smoking, use solar energy, stay away from plastic bags, and inform others. Minimize land pollution by using sustainable forest management, green agriculture, and appropriate waste disposal practices.

- Minimize household hazardous waste by reading product labels and selecting the least dangerous items.

Conclusion

Animals and humans alike are suffering greatly as a result of environmental degradation, which is putting numerous animal species in danger of going extinct.

Because environmental pollution is trans boundary, it is even harder to control; you can't just erect walls across your nation's borders or station customs officers at each port of entry to control the flow of pollution into your territory.

All living things on Earth are interdependent, and although nature provides us with essential environmental services that are necessary for our survival, our activities and the way we handle natural resources also affect each other. It is commonly acknowledged that we are grossly overspending on natural resources at the moment; at the current rate of exploitation, the environment will never be able to recover quickly enough to continue functioning normally in the future. Taking a more comprehensive approach to nature might be beneficial; it is not something that exists outside from us; rather, it is a part of us and we ought to treat it with the utmost respect. Only then will we be able to try to remedy the issue.

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