



A Study of Pollution at Global Level

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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.

Many things that are useful to people produce pollution. Cars spew pollutants from their exhaust pipes. Burning coal to create electricity pollutes the air. Industries and homes generate garbage and sewage that can pollute the land and water. Pesticides—chemical poisons used to kill weeds and insects—seep into waterways and harm wildlife. 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. Air and water currents carry pollution. Ocean currents and migrating fish carry marine pollutants far and wide. Winds can pick up radioactive material accidentally released from a nuclear reactor and scatter it around the world. Smoke from a factory in one country drifts into another country.

Global Scenario of Pollution:

Pollution is the largest environmental cause of disease and premature death. Pollution causes more than 9 million premature deaths (16% of all deaths worldwide). That's three times more deaths than from AIDS, tuberculosis, and malaria combined and 15 times more than from all wars and other forms of violence. Global health crises, such as the current COVID-19 pandemic further highlight the need for continued action in addressing environmental pollution. Research has shown close links between air pollution and incidence of illness and death due to COVID-19.

Air pollution is the leading environmental risk to health, costing the globe an estimated \$8.1 trillion in 2019, equivalent to 6.1 percent of global GDP. 95 percent of



deaths caused by air pollution occur in low- and middle- income countries. In individual countries, the economic burden of pollution associated with premature mortality and morbidity is also significant, equivalent to 5 to 14 percent of countries' GDPs. Individual country studies, for Argentina, Bangladesh, Colombia, Egypt, Ethiopia, Georgia, India, Lao PDR, Mexico, Myanmar, Nepal, Nicaragua, Nigeria, Pakistan, Peru and Vietnam, at national and subnational levels, suggest that the costs of pollution-related disease are mainly due to outdoor and household air pollution; and exposure to lead and other chemicals.

For the Indian region, it has been estimated that surface ozone pollution destroys enough food to feed about 94 million people and along with fine particulate matter can lead to about 0.9 million premature deaths every year. The economic damage associated with the health and crop impacts of air pollution in India are estimated to be more than 2 billion USD.

Vehicles and their fuels continue to be an important contributor to air pollution. EPA in 2014 issued standards commonly known as Tier 3, which consider the vehicle and its fuel as an integrated system, setting new vehicle emissions standards and a new gasoline sulfur standard beginning in 2017. The vehicle emissions standards will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium-duty passenger vehicles, and some heavy-duty vehicles.

Conclusion:

It is critical to address pollution because of its unacceptable toll on health and human capital, as well as associated GDP losses. Pollution management offers no-regrets options that can alleviate poverty, boost shared prosperity, and address the vital demands of millions of people for healthier and more productive lives. In addition, pollution management can enhance competitiveness, for example, through job creation, better energy efficiency, improved transport, and sustainable urban and rural development. Pollution management can also make substantial contributions to climate change mitigation through actions, such as reduction of black carbon emissions, which contribute to both air pollution and climate change.



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