



# Air Pollutions Effect on The Environment and The Health of Living Things

Student Full Name Institutional Affiliation Course Full Title Instructor Full Name Due date



#### Air Pollutions Effect on The Environment and The Health of Living Things

#### Introduction

Various air pollutants cause air pollution, affecting the health of living things. Air pollution can cause asthma, heart disease, lung cancer, and other serious illnesses. The sources of air pollutants are motor vehicles, manufacturing/industrial processes, and power plants. The two main components of air pollution are particulate matter (PM) and ground-level ozone (Plocoste et al., 2017). Particulate matter consists of particles in the air that come from smoke, dust, car exhaust, or other pollutants. Ground-level ozone is a gas that forms when pollutants react chemically in the air. It is the main ingredient in smog and causes health problems when breathed in. Many people around the globe may not realize the adverse health effects of air pollution on Earth, contributing to health issues and global warming.

## How Air Pollution Is an Individual and Global Concern

Air pollution is an individual concern because it affects the health of living things, and one's health can also contribute to the environment. Every individual leaves traces of carbon footprint through their purchasing choices. For example, if consumers buy items made with recycled packaging, fewer materials are used for packaging. So, less material is sent to landfills or incineration. It is also suitable for the environment because the packaging will not last as long as plastic containers or bottles. Consumer purchasing choices make a difference in the outcome of air pollution on Earth because everyone has a say in what affects them and what they buy.

It is also a global concern because it affects the environment. It can result from natural biological processes, such as wildfires, or anthropogenic activities, such as burning fossil fuels in motor vehicles and power plants. The issue affects everyone's health. It affects every living thing and its health. This shows that air pollution is a global concern because it affects every human and how they live. The WHO estimates that around 7 million people die each year from exposure to indoor and outdoor air pollution (Pillarisetti & Chowdhury, 2022). The deaths from air pollution are normally unseen and of long duration, such as heart disease or cancer. This can make it hard to pinpoint the exact cause of death.



#### Possible Health Concerns Related to Air Pollution

Exposure to high levels of air pollution can cause adverse health outcomes for living things. With the growing population, environmental concerns about air pollution have also increased. It affects human health in every country. For example, exposure increases heart diseases, respiratory infections, and lung cancer. Health concerns have also been linked to various populations' short-term and long-term exposure to air pollution. Respiratory infections, asthma, and lung cancer have been linked to long-term exposure (Rajak & Chattopadhyay, 2020). Contracting such an infection can damage their lungs and overall health, making it difficult to breathe and perform their day-to-day activities.

Other effects from exposure can include stroke, trachea and bronchus cancers, and chronic obstructive pulmonary disease. Exposure to air pollution affects the health of almost all living things. Pollutants like photochemical oxidants and particles harm the lungs and other organs, such as the heart and brain. These particles can be hard on the lungs, causing changes such as chronic obstructive pulmonary disease, lung cancer, or heart attack due to their ability to penetrate the mucous membrane regularly. They also cause brain damage by targeting nerve cells with their high-energy photons (Wang et al., 2017). The health effects of air pollution are not limited to humans. Air pollution can also affect animals and plants adversely. This is because animals and plants breathe the air the same way humans do, so they are susceptible to air pollution. It affects organisms other than humans because it affects the environment for all living things, called the biosphere.

#### Ways in Which Individuals Can Positively and Negatively Impact Air Pollution

People can positively impact the issue of air pollution by minimizing waste. As consumers, individuals can support businesses committed to protecting the environment by purchasing recycled and natural products. They can also reduce their carbon footprint by buying more local produce from farms that protect the environment. Reducing carbon footprint also makes a difference in the outcome of air pollution because a person's carbon footprint directly impacts the environment. Landfill waste is the most significant contributor to carbon emissions to the environment (Zhang et al., 2019). Individuals can reduce the amount of waste they produce by recycling and using public transportation and cars that run on alternate fuels. In addition, consumers can also buy organic products instead of processed or non-organic products. They can support organic and seasonal farmers by purchasing their labor and allowing them to live off their natural produce. People need to become aware that air pollution affects people directly and indirectly because of its impact on plants, animals, soil, and water. Small groups can positively impact this issue by making changes in their purchasing choices and educating others on how to reduce their carbon footprint and make a difference in the outcome of air pollution.



Advocacy on an individual level regarding regulations and laws can also help address the problem of air pollution. Lawmakers in the past have enacted legislation to minimize air pollution. They have been strict with emission levels and carbon emissions. For example, the Clean Air Act of 1970 was enacted in the United States to protect air quality-related values such as human health and welfare, water quality, and wildlife. This Act has been amended several times by the US Congress to reduce the emission of criteria pollutants (Rogers, 2022). As an individual, one can be a part of the movement to create more regulations on laws that are already in place in their country or worldwide. As more people become aware of air pollution and its effects on human health, they will become more involved in reducing it because everyone has a say in what affects them and what they buy.

However, people can negatively impact the issue of air pollution by not being aware of their actions and how they affect the environment. Some people are unaware that they negatively contribute to air pollution daily. They may not think about their actions and whether or not they impact the environment. For example, if someone buys a lot of take-out food because they do not have time to cook, they contribute to more landfill waste. In addition, another way people negatively impact the environment is by driving cars that do not alternate run-on fuel instead of taking public transportation, which is more efficient in reducing carbon emissions.

## Conclusion

Many people around the globe may not realize the adverse health effects of air pollution on Earth, contributing to health issues and global warming. Millions of people die each year from air pollution due to the amount of carbon dioxide emitted from factories, vehicles, and other human-made sources. This contributes to global warming and the consequent health effects on life quality, such as heart diseases and respiratory infections. Air pollution is a global concern because it affects everyone and their lives. As humans, people need to take measures through their actions for us to change air pollution positively. However, it is also crucial for people to be aware that what they buy impacts the environment, leading them down the road of adverse effects. Individuals should be aware that they not only affect themselves but also contribute to the indirect adverse effects of air pollution through their decisions regarding their carbon footprint and waste management. Laws and regulations can implement changes to address the issue of air pollution but depending on how individuals affect these laws and regulations, they can either make a difference or not make one at all. The better people understand the issue at hand, the more they will be able to help themselves, and the people of this world will live healthier lives in an environment that is not polluted.



# References

Pillarisetti, A., Ye, W., & Chowdhury, S. (2022). Indoor air pollution and health: bridging perspectives from developing and developed countries. Annual Review of Environment and Resources, 47, 197-229.

Plocoste, T., Calif, R., & Jacoby-Koaly, S. (2017). Temporal multiscaling characteristics of particulate matter PM10 and ground-level ozone O3 concentrations in Caribbean region. Atmospheric Environment, 169, 22-35.

Rajak, R., & Chattopadhyay, A. (2020). Short and long term exposure to ambient air pollution and impact on health in India: a systematic review. International journal of environmental health research, 30(6), 593-617.

Rogers, D. T. (2022). Environmental Compliance Handbook, Volume 4: Sustainability and Future Environmental Regulations. CRC Press.

Wang, Y., Xiong, L., & Tang, M. (2017). Toxicity of inhaled particulate matter on the central nervous system: neuroinflammation, neuropsychological effects and neurodegenerative disease. Journal of Applied Toxicology, 37(6), 644-667.

Zhang, C., Xu, T., Feng, H., & Chen, S. (2019). Greenhouse gas emissions from landfills: A review and bibliometric analysis. Sustainability, 11(8), 2282.





