

## ***AIR POLLUTION ON EARTH***

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### **Abstract**

*The impact of polluting emissions and to calculate the amount of fresh air needed to dissolve the harmful substances to ensure the maximum rate allowable pollution. The purpose of my experiment was to detect serious problems of air pollution in the city to collect the necessary statistical information to investigate pollution changes in time and space.*

**Keywords:** *air pollution, the environmental situation of air in cities, smog & soot , pollen & mold*

### **Introduction**

For decades, environmentalists argue, if they can make common, universal predictions of how contaminants affect the ecosystem. Almost 25 years ago, for example, an ecologist Odum predicted that pollution is generally less diverse ecosystems makes killing sensitive species and wild animals is the most difficult. Most air pollution comes from energy use and production. Burning fossil fuels releases gases and chemicals into the air. And in an especially destructive feedback loop, air pollution not only contributes to climate change but is also exacerbated by it. Climate change also increases the production of allergenic air pollutants including mold (thanks to damp conditions caused by extreme weather and increased flooding) and pollen (due to a longer pollen season and more pollen production).

### **Research results**

In 1992, Ukraine has been recognized as state of ecological disaster. One reason for this situation is that the number of people, which is only 1% of the population, produced and processed almost 5% of the world's mineral resource , that in Ukraine there are large-scale transformation of the landscape and environmental pollution.

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In the big cities two most common types of air pollution. Smog, or "ground-level ozone" because it is more so for the ozone layer, pollution happens when emissions from burning fossil fuels react with sunlight. Soot, or "particles" consists of tiny particles, chemicals, smoke, dust or allergens in the form of gas or solid particles carried in the air. Both come from cars, trucks, factories, power stations, combustion plants, engines that burn fossil fuels such as coal or natural gas. Smog can irritate the eyes and throat and also damage the lungs—especially of people who work or exercise outside, children, and senior citizens. It's even worse for people who have asthma or allergies—these extra pollutants only intensify their symptoms and can trigger asthma attacks.



And you know how dangerous air pollution? It can be fatal or you'll have serious health risks, even in small quantities. Almost 200 pollutants regulated by law; Some of the most common are mercury, lead, dioxins and benzene. Dioxins, more typically found in food but also present in small amounts in the air, can affect the liver in the short term and harm the immune, nervous, and endocrine systems, as well as reproductive functions. Lead in large amounts can damage children's brains and kidneys, and even in small amounts it can affect children's IQ and ability to learn. Mercury affects the central nervous system. Smog can irritate the eyes and throat and also damage the lungs—especially of people who work or exercise outside, children, and senior citizens. It's even worse for people who have asthma or allergies—these extra pollutants only intensify their symptoms and can trigger asthma attacks.

Mold and allergens from trees, weeds, and grass are also carried in the air, are exacerbated by climate change, and can be hazardous to health. They are not regulated by the government and are less directly connected to human actions, but they can be considered air pollution. “When homes, schools, or businesses get water damage, mold can grow and can produce allergenic airborne pollutants. Mold exposure can precipitate asthma attacks or an allergic response, and some molds can even produce toxins that would be dangerous for anyone to inhale.

Pollen allergies worse because of climate change. Laboratory and field studies show that more carbon dioxide pollen producing plants for the production of ragweed-grown in, the more they grow, and the more pollen they produce, climate change is also expanding production of pollen season, and some studies are beginning to suggest that the very ragweed pollen can become a powerful allergen. This means that more people will suffer from a runny nose, fever, itchy eyes, and other symptoms.

## **Conclusions**

How to help reduce air pollution? The less fuel we burn, the better we do to reduce harmful air pollution and climate change. Make the right choices about transport. If you can walk ride a bike or by public transportation - then go ahead. For driving, look for cars that pass long distances in fewer choose gas or electric cars. You can also explore your options in the energy service provider can request that your electricity shipped by wind or solar energy. And, perhaps most importantly, support leaders who are pushing for clean air and water and responsible steps on climate change. I think that this topic is of interest to many researchers, but also for the residents of my hometown. This topic is investigated, the results of the experiments are different, constantly changing and so it will always be the most urgent. This research also shows the importance of chemistry as a science in understanding and solving pressing environmental problems. In practice, this work can be used in the classroom seminars. We can only hope that we can, to some extent, to clean our environment? If we could overcome

our human desire to want more and more, we have to think about our future generations. Thinking not only us, but all life on Earth.

#### **LIST OF REFERENCES**

1. <http://www.ecology.com/air/air-pollution/>
2. <http://bibliofond.ru/view.aspx?id=703523>

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