

AI Group Project
The State of Global Air 2024 Report

Summary:

The State of Global Air 2024 report highlights that air pollution continues to be a major global health threat, responsible for approximately 7 million premature deaths annually. While air quality has improved in high-income countries, many low- and middle-income regions, especially in Asia and Sub-Saharan Africa, face worsening pollution levels. The report emphasizes the harmful impact of PM_{2.5} (fine particulate matter) and other pollutants like NO₂ and ozone, with significant health risks for vulnerable populations. It calls for stronger air quality regulations, cleaner energy solutions, and greater public awareness to reduce pollution and its health impacts. Climate change and air pollution are interconnected, and efforts to tackle both are critical for global well-being.



Article:

The Health Effects Institute and the Institute for Health Metrics and Evaluation created *The State of Global Air 2024 Report*. The report analyzes air pollution trends and health impacts from 1990 to 2021. It focuses on the health risks to children and incorporates data on air pollution during COVID-19.

In 2021, 8.1 million deaths worldwide were due to air pollution, making it the second-largest risk factor for death. Particulate matter (PM_{2.5}) has caused 4.7 million deaths, household air pollution caused 3.1 million deaths, and damage to the ozone caused about half a million deaths.

The report covers children's health and regional disparities. Air pollution is the second-leading cause of death for children and exposure to these pollutants is linked to childhood asthma, causing a loss of 177,000 years of healthy life lost. It also reports that the areas that most experience the highest burden are South Asia and Africa with the highest levels of particulate matter.

Concerns that are emerging regarding air pollution is the link to climate change with things like droughts, wildfires and rising temperatures worsening ozone levels. As well as the high levels of nitrogen from high-income areas like North America and Europe.

Policies have been put in place to decrease air pollution, like the WHO Air Quality Guidelines, which give recommended levels of air pollutants. There is also more access to clean energy, which can lower the amount of fossil fuels burned. One of these initiatives is the Africa Clean

Cooking Consortium, which emphasizes clean cooking technology to reduce household air pollution.

Thanks to these initiatives, progress has been made. Since 2000, there has been a 36% reduction in deaths caused by household air pollution. There has also been an increase in data monitoring, which has seen a stabilization in the ozone in many regions.

Unfortunately, there is still a lot of work to be done, there has been an increase in ozone pollution in areas like South Asia and Africa. Air pollution is also expected to increase due to aging populations and urbanization without targeted interventions.