

## Air pollution is not just one thing

Air pollution is a mix of harmful gasses and tiny particles in the air. Harmful gasses include for example ozone (O<sub>3</sub>), nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC). The tiny particles include dust and are often referred to as particulate matter (PM) and ultrafine particles (UFPs) in air pollution studies and research. These pollutants can make the air dirty, impacting human health and the environment.

## How air pollution impacts you

Around the world, air pollution causes 8.1 million deaths every year. Breathing polluted air, even for a short time, can cause asthma, breathing issues, and more trips to the hospital. Long-term exposure to air pollution can lead to serious illnesses like heart disease, lung cancer, pneumonia, stroke, and type 2 diabetes. Children are especially at risk because their bodies and immune systems are still developing.

## What can we do?

Knowing where pollution comes from and how it impacts us helps to design air pollution policies. You can help by learning about local sources, laws, and how your local government can work to reduce pollution, while understanding your rights for cleaner air. Air pollution policies often impact the citizens and impose costs on polluters, making it essential that they are informed by reliable and accurate information. Different types of air pollution data, such as pollutant concentrations, real-time and historical data, emissions, and models, provide the foundation for air pollution policies. Understanding possibilities and limitations in the different data types enables the effective use of these data to balance diverse objectives when reducing pollution. This will lower the hindrances to get from data to action for cleaner air.



## Air pollution sources

We are exposed to both ambient and indoor air pollution sources. Ambient air pollution sources consist of both natural and man-made activities.

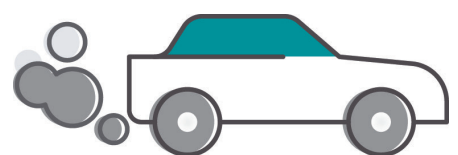
Example of man-made sources are:	Examples of natural sources:	Examples of indoor sources:
<ul style="list-style-type: none"> <li>• Vehicle emissions</li> <li>• Industrial and mining activities</li> <li>• Waste burning</li> <li>• Domestic fuel burning</li> <li>• Agriculture</li> <li>• Construction sites dust</li> </ul>	<ul style="list-style-type: none"> <li>• Wild-fires</li> <li>• Sand and dust storms</li> <li>• Vegetation</li> <li>• Sea spray</li> <li>• Volcanoes</li> </ul>	<ul style="list-style-type: none"> <li>• Combustion</li> <li>• Use of household products</li> <li>• Ambient air intrusion</li> <li>• Activities like cooking and cleaning</li> </ul>

## Air pollution where you are

In Kenya, like in many developing countries, air pollution is a significant challenge. The main sources of air pollution in Kenya and by extension, the whole of sub-Saharan Africa, include:

- Vehicle emissions from the growing number of old and poorly maintained cars. The contribution of vehicles to air pollution accounts for about 40% and more than 80% in the street levels.
- Poorly regulated industrial activities, particularly in and around urban centres.
- Burning of solid garbage as a way of waste disposal.
- Use of biomass for domestic cooking and heating.
- Dust from unpaved roads and construction sites

Exposure to air pollution in Kenya has resulted in severe consequences to public health. Of concern is that children and the elderly are particularly vulnerable to respiratory issues caused by poor air quality. To curb the issue of poor air, the government can implement policies and actions that will contribute to significant strides in improving air quality, particularly in urban areas like Nairobi and protect the vulnerable population from the harmful effects of air pollution.



**99%**

of the population is exposed to PM2.5 levels above WHO guidelines

**20 million**

Kenyans suffer from respiratory issues exacerbated by poor air quality

**99%**

of primary and secondary schools use firewood for cooking.