

Open Air Quality Data: The Global Landscape

2026

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WITH CONTRIBUTIONS FROM THE
OPENAQ COMMUNITY

OPEN AIR QUALITY DATA / 2026

Executive Summary

Open Air Quality Data: The Global Landscape is the only comprehensive, global assessment of whether and how national governments are producing and sharing air quality data with the public.

Air pollution is the greatest external threat for death across the world, cutting lives short by an average of 1.9 years (Greenstone, et al. 2025) and harming health in a myriad of ways, starting in the womb.

Governments have a responsibility to address this public health crisis, and reliable monitoring is essential to doing so. Data generated by air quality monitors underpin all necessary actions, from quantifying levels, sources, and health impacts of air pollution to informing how to reduce emissions through regulatory and other solutions.

Air pollution measurements are relevant not only for governments, but for everyone who breathes air and for those who can lend their skills to solving the problem, such as researchers preparing emissions inventories, building models, or conducting epidemiological studies, community leaders and communicators expanding awareness, and entrepreneurs building forecasting models.

Rather than attempting to solve the problem of air pollution in isolation, governments that choose to share their data openly can leverage the expertise of others to build more innovative and durable approaches to solving the air pollution crisis.

Despite the imperative, not all governments monitor air quality, and those that do vary widely in their data sharing practices.

OpenAQ—an NGO that hosts the world's largest open-source, open-access database of real-time and historical outdoor air quality measurements—conducts a biennial analysis of countries across the world to determine which have government-level air quality monitoring programs and whether and how those governments are opening their monitoring data to the public.

Trends and gaps in air quality monitoring

Just 67% of the countries we examined conduct or sponsor continuous air quality monitoring at a national or subnational level in 2026, an increase of only 3% since our last report in 2024. In other words, 33% of countries' governments are not currently monitoring air pollution, one of the greatest global health risks. Major gaps in monitoring persist, with many of the most populated, polluted countries still lacking government-coordinated air quality monitoring programs or conducting very limited monitoring, especially in the Global South (Hasenkopf, et al. 2023).

In fact, nearly one billion people live across 65 countries where there is no evidence of governmental air quality monitoring, 7 out of 10 of whom live in low-income or lower-middle income countries, as classified by the World Bank. Furthermore, for the most populated countries whose national government is not monitoring air quality, air pollution is one of the top eight risk factors for death and disability in their country.

THE MONITORING GAP

33%

of countries lack continuous government air quality monitoring

1 billion

people live in countries with no evidence of government monitoring

7 in 10

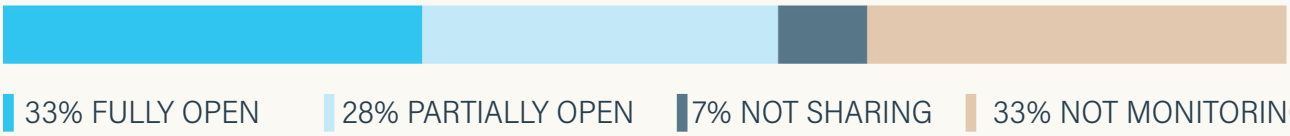
of those 1 billion people live in low - or lower-middle-income countries

top 8

Air pollution is one of the top 8 risk factors for death and disability in countries lacking government monitoring

Trends and gaps in air quality data sharing

61% of 198 countries examined share air quality data publicly. 33% of 198 do so in a fully open way, while 28% share data only in a partially open way.



33% FULLY OPEN 28% PARTIALLY OPEN 7% NOT SHARING 33% NOT MONITORING

As one example of how data are being shared, many countries share their data through an Air Quality Index (AQI), a good first step toward transparency. AQIs translate complex pollutant concentration data into a simple, understandable format that can alert the public about the immediate threat of polluted air, and AQI providers often share actions that people can take to reduce exposures. However, a subset of countries only publish AQIs and not the underlying pollutant concentrations. This approach lacks the detail necessary for most scientific inquiry, and, depending on the methodology used, may even be misleading.

In short, a third of countries provide full and easy public access to maximally useful air quality data-data with the requisite detail to inform scientific inquiry, policies to reduce air pollution, air pollution forecasts, and other important "use cases."

Compared to previous years, there is a continued increase in the number of countries that share their air quality data publicly in some way (up by 8% from 2022, and by 6% from 2024), and an increase in countries making the data fully open and accessible (up by 10% from 2022, and 6% from 2024).

> One-third of the countries (33%) provide full and easy public access to air quality data, which maximizes support for clean air solutions.

Recommendations

Measuring and tracking air pollution levels is critical to understanding and developing solutions to poor air quality. Making air quality data fully open, easily accessible and freely available allows everyone across public, private and civil society to innovate, collaborate and apply effective solutions towards clean air. We recommend:

01 All governments should measure and track air quality.

Recognizing that resources are limited, a government just beginning to monitor could start by installing a reference-grade $PM_{2.5}$ monitor as described in Our Common Air's 2024 report, *"Accelerating Country-led Air Quality Reporting to Achieve Clean Air"* and *AQMx's Air Quality Management Guidance for Air Monitoring*. In some circumstances, air sensors may suffice.

02 All governments should share the air quality data they generate in a fully open and accessible manner.

Fully open means in physical units, at the station-level with station-specific coordinates, in daily or sub-daily (hourly, minutely) frequency reported in near real-time or a reasonably timely manner, and in a format that is programmatically accessible and machine-readable.

Recommendations

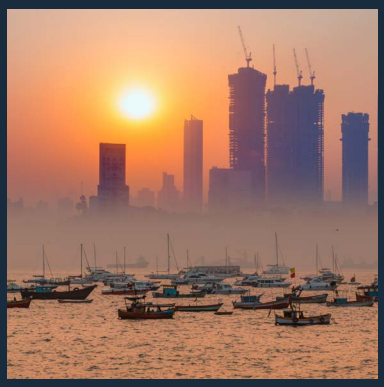
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03 Funders, such as development agencies, banks and philanthropies, should support less-resourced governments.

Countries where a relatively small investment would close a serious data gap and effect positive national-level change are identified in the EPIC report, *"EPIC's 2025 Clean Air Investment Update: A Tougher Landscape—and an Even Greater Opportunity."*

04 Funders should include conditions for data transparency in funding agreements—and provide the resources to do that.

One example of funding with an open data sharing requirement is the EPIC Air Quality Fund.



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