**The Global Air Quality Crisis: Why Fully Open and Transparent Data is the First Step Toward Clean Air**

**Air Quality Data Deficit: 45% of Nations Either Don’t Monitor or Monitor but Don't Share Any Data**

**Air pollution is one of the world’s deadliest threats, responsible for over seven million premature deaths annually. Despite its critical importance, the availability of air quality data—the very foundation for combating air pollution—is alarmingly limited. According to the OpenAQ Open Air Quality Data Global Landscape 2024 report, 45% of nations either do not monitor air quality or monitor but do not share any data, 28% share data only partially. This means nearly three quarters of the world’s population lack access to vital information about the air they breathe.**

**The Data Deficit: A Global View**

**The map starkly illustrates the air quality data-sharing landscape across 198 countries. The findings are alarming:**

**36% of countries do not monitor air quality at all.**

**9% monitor but do not share their data.**

**28% share data partially.**

**Only 27% of countries share air quality data fully openly, transparently and in a maximally useful way.**

**As the map shows, the global south faces the most significant data gaps. Many countries in Africa, South Asia, and parts of Latin America either lack monitoring systems or share data in a very limited capacity. Without access to air quality information, communities in these regions cannot effectively advocate for cleaner air, leaving them vulnerable to the silent killer of air pollution.**

**What Does "Fully Open Air Quality Data" Mean?**

**The OpenAQ report sets a clear standard for what constitutes fully open air quality data. To qualify, data must:**

**Be shared in physical units: Data should be provided in measurable units like micrograms per cubic meter (μg/m³) rather than generalized indices.**

**Include station-specific coordinates: Data must be linked to precise geographic locations, ideally to five decimal places.**

**Be timely and granular: Data should be updated daily or sub-daily, ideally in near-real-time.**

**Offer programmatic access: Data should be machine-readable and accessible via APIs or standardized formats like JSON or CSV files.**

**Countries that meet all of these criteria enable scientists, policymakers, and citizens to take fast actionable steps to improve air quality. However, as the data reveals, only 27% of nations currently achieve this level of transparency.**

**The Global South: A Call to Action**

**The disparity between the global north and south in air quality data sharing is striking. While countries in the global north, such as those in Europe and North America, have made significant strides, the global south lags far behind. In many parts of the global south, the fight against air pollution cannot even begin because there is no data to identify the problem.**

**For example:**

**In sub-Saharan Africa, the majority of countries do not monitor air quality at all.**

**In South Asia, while some nations monitor air quality, the data is often incomplete or inaccessible.**

**Data is the oxygen of air pollution advocacy. Without it, governments cannot craft effective policies, and communities cannot hold polluters accountable.**

**Recommendations: Bridging the Data Gap**

**To address these urgent gaps, the OpenAQ report makes the following recommendations:**

**All governments must measure and track air quality.**

**Acknowledging the constraints on resources, a government embarking on air quality monitoring should prioritize the installation of a reference-grade PM2.5 monitor, as outlined in Our Common Air's 2024 report, "Accelerating Country-led Air Quality Reporting to Achieve Clean Air.**

**Governments must share air quality data fully and transparently.**

**This includes sharing in physical units, with station-specific coordinates, timely updates, and programmatic access.**

**Funders must prioritize the global south.**

**Philanthropies and development banks should invest in building monitoring systems and data-sharing platforms in less-resourced countries. A relatively small investment can close critical data gaps as highlighted in EPIC report, “The Case for Closing Global Air Quality Data Gaps with Local Actors: A Golden Opportunity for the Philanthropic Community.”**

**Transparency conditions must be tied to funding agreements.**

**Funders should require governments to share air quality data openly as part of grant or loan agreements. One example of an open data sharing requirement is the EPIC Air Quality Fund.**

**Why This Matters: The Daily Threat of Air Pollution**

**Air pollution is not only a long-term problem; it is a daily, accumulating threat and should be viewed as such. Every day without action means more people breathing polluted air, more hospitalizations overtime, and more preventable unexpected premature deaths. Transparent air quality data is the foundation for combating this crisis. It empowers policymakers to implement effective solutions, enables researchers to measure progress, and gives communities the tools to demand cleaner air.**

**As the global south grapples with some of the worst air pollution levels in the world, the lack of data represents a double burden. These nations must fight not only to reduce pollution but also to establish the systems needed to track it. Meanwhile, although the global north has made significant progress in cleaning its air, it still has a long way to go to get to a state where their air quality is in line with the WHO air quality guidelines.**

**Takeaways: A Shared Responsibility**

**Air pollution knows no borders. While the burden of action falls heavily on governments and funders, each of us has a role to play in advocating for cleaner air. Whether it’s supporting organizations like OpenAQ, raising awareness in your community, or calling on leaders to prioritize air quality, the time to act is now.**

**Clean air should not be a luxury; it’s a human right. Let’s ensure that every breath we take moves us closer to a world where that right is realized for all.**

**Share This Visual!**

**Here is a link to download the PNG file for the above plot: Link to PNG.**

**Help raise awareness about the severity of air pollution in India by sharing this and other visuals in the biteSizedVisuals series. By spreading the message, we can collectively push for urgent actions to address the crisis and create a healthier future for all. Share this visual with your network to highlight the air quality challenges faced by millions across the country.**

**References/Citations**

**Rosales, C M F, Hagerbaumer, C, Sawant, V, Marte, J, Biggs, R, (2024) 2024 Open Air Quality Data: The Global Landscape OpenAQ, Washington, DC [Link]**

**2024 Open AQ Global Landscape Report Worksheet with countries and their tags [Link]**

**Accelerating Country-led Air Quality Reporting to Achieve Clean Air, Our Common Air [Link]**

**The Case for Closing Global Air Quality Data Gaps with Local Actors: A Golden Opportunity for the Philanthropic Community, EPIC UChicago [Link]**

**Guidance-for-EPIC-AQ-Applicants, EPIC Air Quality Fund [Link]**