Air Quality Data: South Asia

A regional snapshot derived from the OpenAQ report,
Open Air Quality Data: The Global Landscape 2024

## The Importance of Air Quality Monitoring & Data Transparency

Air pollution is the #1 leading risk factor for death and #2 leading risk factor for disability-adjusted life years (DALY) in South Asia. (State of Global Air, 2024*)

Measuring and tracking air pollution levels is critical to understanding and developing solutions to poor air quality. Governments that make air quality data open, easily accessible and freely available can leverage public, private and civil society expertise to build effective and durable approaches to solving the air pollution crisis.

OpenAQ Examined:

1. Which countries are (and are not) actively monitoring air quality on a continuous basis?

2. To what extent are countries that are monitoring sharing the data they generate with the public?

6 (75%)
2 (25%)

- Monitor: share data
- Do not monitor

South Asia[**]
N=8
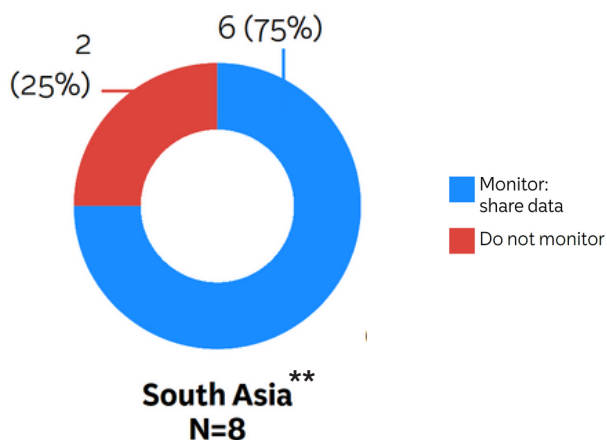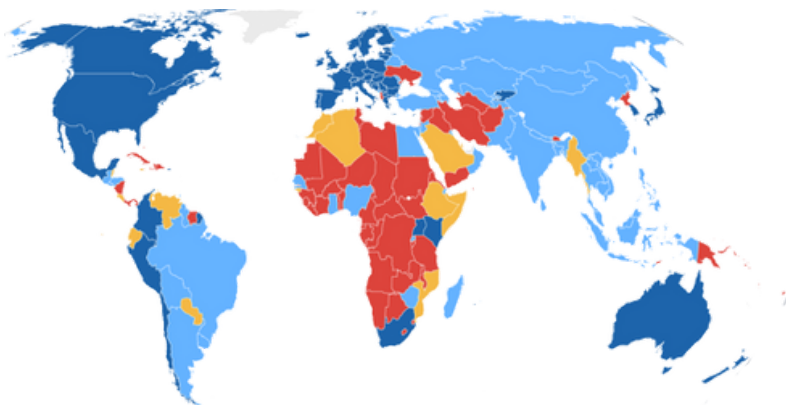
**Regional classification for countries according to the World Bank

Monitoring & Data Sharing Status

We found evidence that 75% [N=6] of the 8 countries in this region are generating air quality data on a regular basis, and 25% [N=2] are not. Those countries without national-level air quality monitoring represent a combined population of 43 million.

All of the countries that monitor are also publicly sharing the data they generate, albeit not in a fully open, transparent manner. *[Note that data from India's Central Pollution Control Board limits programmatic access through human verification techniques.]*

Criteria for Fully Open Data

- in physical units (an AQI alone does not
- suffice) with station-specific geographic
- coordinates at a daily or sub-daily frequency
- in a format that is machine-readable.

Changes to Monitoring & Data Sharing Since 2022

Afghanistan and Bhutan currently do not have national-level air quality monitoring. Bangladesh, India, Maldives, Nepal, Pakistan and Sri Lanka all share air quality monitoring data publicly, although not in a fully open, transparent manner.

* Based on 2021 data. "Air pollution" includes ambient $PM_{2.5}$, ambient ozone and household air pollution.

Barriers

The most significant barrier to establishing a regular air quality monitoring program is resource constraints, such as a lack of financial resources and/or technical expertise. Governments must procure, operate and maintain the monitoring equipment; centralize and manage the data they produce (either building their own custom data management system or relying on private air sensor manufacturer platforms; analyze and use the data to inform actions; share the data; and communicate effectively.

Governments may not recognize the benefits of full data transparency: Open data increases public trust and cross-sectoral collaboration, leading to more innovative and evidence-based clean air solutions.

Opportunities

- Leveraging international expertise and partnerships can help overcome resource constraints.
- A global, stakeholder-led project is underway to develop an open-source data management system that governments can tailor to their needs.
- Social media offers a way to share air quality data. For example, India has an app for mobile devices called "Sameer" that provides an hourly update of its national AQI. They also provide regular updates across the country via Facebook.

Bright Spots

Intercountry and local government monitoring efforts, as well as monitoring projects by non-governmental organizations (academic institutions, community-based organizations, civic groups and citizen scientists) are increasing. For example, the International Centre for Integrated Mountain Development (ICIMOD) serves the Hindu Kush Himalaya region which includes Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan.

Recommendations

- All countries should measure air quality and share the data they generate in a fully transparent and accessible manner.

- Funders, such as development banks and philanthropies, should support less-resourced governments in their monitoring and data sharing efforts.

About OpenAQ

OpenAQ is the world's first and largest open-source, open-access database of outdoor air quality measurements, built to ensure everyone has unfettered access to the data they need to analyze, communicate and advocate for clean air.

Read the full report here:
link.openaq.org/2024GlobalLandscape

Access the full tally of countries here: link.openaq.org/2024-ReportWorksheet

explore.openaq.org   inkedin.com/company/openaq   info@openaq.org