EPIC CLEAN AIR PROGRAM

EPIC's 2025 Clean Air Investment Update

A Tougher Landscape — and an Even Greater Opportunity

THE UNIVERSITY OF CHICAGO
EPIC ENERGY POLICY INSTITUTE | Clean Air Program

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Air pollution is the world's largest external threat to human health, shortening lives more than diseases like HIV/AIDS and malaria, combined – and translating into global economic damage equivalent to the impact of 1.5 COVIDs each year.

Yet, air pollution remains severely underfunded relative to this harm with less than 0.1 percent of global philanthropy devoted to the issue. Given this poorly resourced problem space, it was our hypothesis that even modest investments, strategically made, could yield outsized, country-level results. Since launching the EPIC Air Quality Fund last year, we now have clear evidence that this approach can indeed drive national-level clean air impacts.

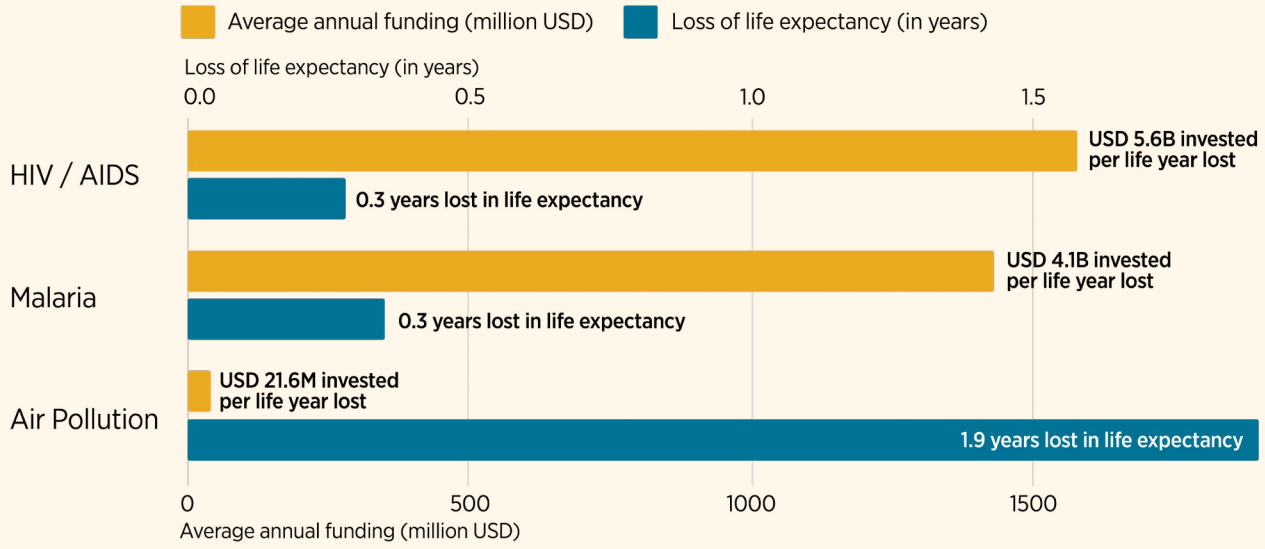
Our 2025 Clean Air Investment Update reveals an even tougher clean air landscape with the closure of the U.S. State Department monitoring program earlier this year, leaving 36 countries – 3.4 billion people – without publicly accessible reference-grade air quality data. This tougher landscape translates into an even more important, timely opportunity for philanthropic investment.

In 2023, we created the **Opportunity Score**, which pinpointed where catalytic investments could be made to deliver the greatest impact for cleaner air.

This original Opportunity Score analysis posited that in many countries, $50–100k per year – comparable to the cost of a single non-profit staff position in the U.S. – could spark national clean air impacts that could ultimately restore years of life in many countries. That insight led to the launch of the **EPIC Air Quality Fund** in 2024.

To drive the strategy of the EPIC Air Quality Fund's second call for proposals in 2026 and also serve as a public good for the philanthropic community, this 2025 Clean Air Investment Update, which displays an update of countries' Opportunity Scores, builds on our original work with new data, refined methodology, and fresh evidence from the field. Our findings are below. The methodology, detailed analysis, underlying code and data sources are accessible here. To note, as with any effort to simplify a complex global challenge, this Opportunity Score is necessarily imperfect — it cannot capture every nuance, but we hope it provides a useful starting lens for philanthropic decision-making.

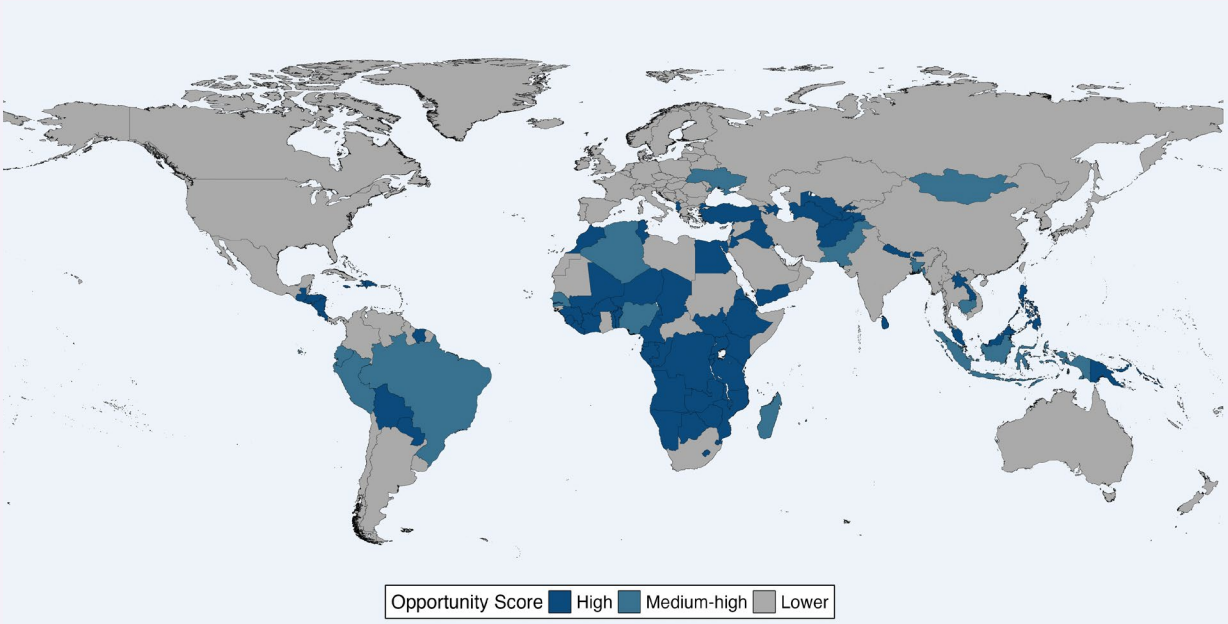
Orders of Magnitude Off: Global Air Pollution Funding



Sources: HIV/AIDS and Malaria funding data - The Global Fund Data Explorer; Air Pollution funding data - The Clean Air Fund's 2024 report; Loss of life expectancy data for HIV/AIDS and Malaria are calculated from the Global Burden of Disease level-2 causes and risks data; Loss of life expectancy for Air Pollution are calculated from data from the AQLI 2025 Update.

Previous page photo credit: EPIC Air Quality Fund awardee Kampala Capital City Authority

2025 Clean Air Investment Map: Where Small Investments Can Drive National Clean Air Action



By the numbers:

- **83 countries** received "higher opportunity" scores for where a modest investment of 50-100k USD could result in national clean air impacts.
- **2.9 billion people live in these 83 countries** and are exposed to more than 4 times the WHO guideline for air pollution, removing an estimated 1.7 years of average life expectancy, more than the toll of HIV/AIDS and malaria combined.
- **3 African countries top the list:** Angola, Zambia, and Burundi. None have reference-grade air quality data monitoring, little policy, and practically zero dollars in philanthropic support, but local capacity and interest exists.
- **46 higher opportunity countries receive less than $100,000** annually from international donors to address air pollution. In fact, the combined total available funding in these countries is less than $190,000 per year.
- **97 percent of reference-grade monitors in the highest opportunity countries were lost earlier this year**, when the US State Department shut down their program. Thirty-six countries in total – representing 3.4 billion citizens – now have no reference-grade air quality monitors.

Small Investments Based on the Opportunity Score are Already Leading to National Clean Air Impacts

When we released the first Opportunity Score in 2023, the EPIC Air Quality Fund did not yet exist. Today it does, and with 31 awardees across 19 countries – prioritized using that 2023 analysis – we are already seeing how modest investments can deliver national clean air impact:

- For the first time in **The Gambia**, government agencies are using on-the-ground air quality evidence to generate new clean air policies. For example, **Permian Health**'s collaboration with the Gambian Government has resulted in the drafting of landmark environmental legislation that has made its way through the Gambian parliament. Previously, the partnership established the first reference-grade air quality monitoring in the country.

- **Democratic Republic of the Congo**: Awardee **WASARU**, partnering with Columbia University, has launched the only open air quality monitoring network sharing in the country – Africa's most polluted. The government has consequently requested to engage with WASARU to inform its policies.

- **The Urban Unit**, a **Pakistan** government-related entity, has launched the country's largest air quality monitoring network across nearly a dozen cities, helping the government share such data in an open way for the first time.

- In **Malawi**, the government is now producing nationwide air quality bulletins for the first time making use of data produced in-country. The Malawi University of Business and Applied Sciences is running the only monitoring network in the country providing open data.

- **Ghana's Environmental Protection Authority** is generating and sharing data for the first time in a fully open way. This effort has helped implement brand new air quality management legislation and is building momentum for future support.

A Fragile Moment for Clean Air — and the Chance for Outsized Impact

Since our 2023 Opportunity Score analysis, the global landscape for clean air action has become both more urgent and more fragile. In early 2025, the U.S. State Department shut down its overseas air monitoring program, instantly removing 97 percent of reference-grade monitors across the countries we have identified as "high or medium-high opportunity." Thirty-six countries in total, containing 3.4 billion citizens, lost public access to reference-grade monitoring from their country when the program shut down. This has consequently left entire regions without official data, underscoring just how precarious global air quality infrastructure remains. At the same time, this new landscape makes an even larger opportunity for modest – $50-100k, strategic investments in locally-owned efforts to have outsized, durable clean air impacts.

Photo credit: EPIC Air Quality Fund awardee Sustenta Honduras

Interested in partnering with EPIC Air Quality Fund? Reach out to EPIC's Clean Air Program Director, Christa Hasenkopf: chasenkopf@uchicago.edu

Appendix

2025 Higher (High and Medium-High) Opportunity Score Countries and relevant metrics, ordered alphabetically by Opportunity Score Band

* Data not available

Country	Population (in million)	PM2.5 (in µg/m³)	International Development Funding in USD million	Philanthropic funds in the country's region in USD million	Number of projects supported by philanthropic funds	Number of reference grade monitors	Density of total number of air quality monitors	Does the country have open data?	Evidence of government sponsored/ operated air quality monitoring	Does the country have an ambient air quality standard?	Does the country have an ambient air quality policy?	Opportunity Score Band
Afghanistan	39.23	21	*	4.23	24	*	*	N	N	Y	N	High
Albania	3.09	10.7	*	0.11	1	*	*	N	N	Y	Y	High
Angola	35.79	23.3	*	*	*	*	*	N	N	N	N	High
Azerbaijan	10.52	12.5	*	*	*	*	0	Y	Y	N	N	High
Benin	14.2	16.4	11.25	*	*	*	*	N	N	N	N	High
Bhutan	0.88	25.4	*	4.23	24	*	*	N	N	N	N	High
Bolivia	12.19	32.2	*	*	*	*	*	Y	Y	N	N	High
Botswana	2.42	15.9	*	*	*	*	*	N	N	N	N	High
Burkina Faso	22.46	8.2	13.8	*	*	*	*	N	N	N	N	High
Burundi	13.16	29.3	*	*	*	*	*	N	N	N	N	High
Cameroon	30.18	32.5	0.6	*	*	*	0.07	N	N	N	N	High
Chad	18.56	12.4	0.6	*	*	*	0	N	N	N	N	High
Comoros	0.82	5.7	*	*	*	*	*	N	N	N	N	High
Costa Rica	5.2	13.4	*	*	*	*	0.19	N	Y	N	N	High
Côte d'Ivoire	29.25	10	*	*	*	*	0	N	N	N	N	High
Democratic Republic of the Congo	111.82	32.1	3.69	*	*	*	0	N	N	N	N	High
Djibouti	0.96	20	*	*	*	*	*	Y	Y	N	N	High
Dominican Republic	10.67	7.1	0	*	*	*	*	N	N	Y	N	High
Egypt	109.28	17.8	0	*	*	*	0	Y	Y	Y	N	High
El Salvador	6.56	27.3	0.01	*	*	*	*	Y	Y	Y	N	High
Equatorial Guinea	1.7	29.9	*	*	*	*	*	N	N	N	N	High
Eritrea	6.22	12.1	0	*	*	*	*	N	N	N	N	High
Ethiopia	115.86	14.7	12.8	*	*	*	0	N	Y	N	N	High
Gabon	2.38	25.3	*	*	*	*	*	N	N	N	N	High
Gambia	2.45	6.9	*	*	*	*	*	N	N	N	N	High
Guatemala	17.96	26.4	0.02	*	*	*	0	Y	Y	N	N	High
Guinea	13.53	9.4	*	*	*	*	0	N	N	N	N	High
Haiti	11.4	8.7	*	*	*	*	*	N	N	N	N	High
Honduras	9.37	28.2	*	*	*	*	0.21	Y	Y	N	N	High
Iraq	41.27	23.2	1.03	*	*	*	0	N	N	Y	N	High
Jamaica	2.79	14.1	*	*	*	*	*	N	Y	Y	N	High
Jordan	11.09	16.4	2.83	*	*	*	0	Y	Y	Y	N	High
Kenya	56.96	16.1	7.34	*	*	*	0.05	Y	Y	Y	Y	High
Laos	7.89	28.9	0.03	0.7	2	1	0.25	Y	Y	N	N	High
Lebanon	5.29	17.6	5.35	*	*	*	*	N	N	N	Y	High
Lesotho	2.21	23.1	*	*	*	*	*	N	N	N	N	High
Liberia	5.2	9	*	*	*	*	*	N	N	N	N	High
Malawi	20.91	18.4	0.52	*	*	*	*	N	N	N	N	High

Malaysia	33.89	16.3	*	0.7	2	*	0.06	Y	Y	Y	Y	High
Mali	21.34	6.4	11.25	*	*	*	0	N	N	N	N	High
Morocco	36.29	8.1	*	*	*	*	0.08	N	Y	N	Y	High
Mozambique	32.41	13.6	9.31	*	*	*	0	N	Y	N	N	High
Namibia	2.75	15	*	*	*	*	*	N	N	N	N	High
Nepal	30.96	38.3	5.63	4.23	24	*	0.06	Y	Y	N	N	High
Nicaragua	6.59	15.2	0.02	*	*	*	*	N	N	N	N	High
Niger	25.38	9.5	0.4	*	*	*	*	N	N	N	N	High
Papua New Guinea	9.52	11.7	*	*	*	*	*	N	N	N	N	High
Paraguay	7.44	17	*	*	*	*	0	N	Y	Y	N	High
Philippines	112.65	17.1	3.32	0.7	2	*	0.08	Y	Y	Y	N	High
Republic of the Congo	5.99	30	0.18	*	*	*	*	N	N	N	N	High
Rwanda	13.39	30.3	0.17	*	*	*	0	Y	Y	Y	Y	High
Sierra Leone	8.81	9.6	*	*	*	*	*	N	N	N	N	High
Solomon Islands	0.56	6.3	*	*	*	*	*	N	N	N	N	High
South Sudan	12.14	13.5	0.96	*	*	*	*	N	N	N	N	High
Sri Lanka	21.65	16.2	*	4.23	24	*	0.05	Y	Y	Y	Y	High
Suriname	0.66	6.8	*	*	*	*	*	N	N	N	N	High
Swaziland	1.14	15.9	*	*	*	*	*	N	N	N	Y	High
Tajikistan	10.17	21.3	*	*	*	*	0.29	Y	Y	N	N	High
Tanzania	65.26	17.1	0.48	*	*	*	*	N	N	N	N	High
Timor-Leste	1.45	10.1	*	0.7	2	*	*	N	N	N	N	High
Togo	8.71	14.5	0.14	*	*	*	*	N	N	N	N	High
Tunisia	11.88	8.1	0.26	*	*	*	*	N	N	N	N	High
Turkey	82.9	20	*	*	*	*	0.12	Y	Y	N	N	High
Turkmenistan	5.67	12.5	*	*	*	*	0	N	N	N	N	High
Uganda	47.55	27.3	14.55	*	*	*	0	Y	Y	Y	N	High
Uzbekistan	36.11	19.1	208.96	*	*	*	0	Y	Y	N	N	High
Yemen	31.48	16.1	11.98	*	*	*	*	N	N	N	N	High
Zambia	20.22	25.2	< 0.01	*	*	*	0.15	N	N	N	N	High
Zimbabwe	16.79	18.8	*	*	*	*	*	Y	Y	N	N	High
Algeria	46.19	5.3	0.32	*	*	*	0	N	Y	N	N	Medium-high
Bangladesh	166.84	60.8	1052.47	4.23	24	*	0.01	Y	Y	Y	Y	Medium-high
Brazil	218.23	12.1	0.09	*	*	7	0.04	Y	Y	Y	Y	Medium-high
Cambodia	16.88	18.8	77.69	0.7	2	*	*	Y	Y	Y	Y	Medium-high
Ecuador	18.1	17.3	1.32	*	*	*	0.11	N	Y	Y	N	Medium-high
Indonesia	276.07	18.6	0.15	0.7	2	*	0.04	Y	Y	Y	N	Medium-high
Madagascar	28.7	8.8	0.18	*	*	*	0	Y	Y	N	N	Medium-high
Mauritius	1.27	5.2	*	*	*	*	1.57	Y	Y	N	N	Medium-high
Mongolia	3.25	27.5	4.77	6.17	44	*	0	Y	Y	Y	N	Medium-high
Nigeria	229.94	22.9	3.71	*	*	*	0.01	Y	Y	Y	Y	Medium-high
Pakistan	247.51	39	19.15	4.23	24	*	0.02	Y	Y	Y	Y	Medium-high
Peru	32.38	24.2	0.6	*	*	45	1.42	Y	Y	Y	N	Medium-high
Senegal	18.19	5.5	116.08	*	*	*	0.11	Y	Y	Y	Y	Medium-high
Ukraine	34.76	10.2	10.21	3.23	9	*	0.09	N	N	Y	N	Medium-high

For the full set of indicator data underlying the Opportunity Score and score bands from all countries analyzed, please see our GitHub repository: https://github.com/Air-Quality-Data-Gaps/opportunity-score

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EPIC Clean Air Program

The EPIC Clean Air Program is working to bring actionable information about the quality of the air we breathe and its impact on our health to every corner of the globe in order to motivate action and lay guideposts for efficient air pollution policies. This work includes an Air Quality Fund to bring high quality and high frequency air pollution monitoring and data access to the places of the world where it is needed most; the Air Quality Life Index (AQLI), which uses air pollution data to translate the impact of pollution on a person's life expectancy; and several particulate pollution trading markets being piloted in Indian cities in coordination with state governments.

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