CLEAN AIR FUND

Data to Solutions: Clean Air Fund & Breathe Cities

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Clean Air Fund – Our story so far

- CAF launched in 2019 with support and backing from philanthropic foundations

- We have launched a broad and inclusive clean air movement that advocates for climate-friendly solutions for people and planet

- We and our grantees have achieved:
  - ✓ More than $100m in funding for the movement
  - ✓ Ambitious government action
  - ✓ Largest city network committed to air quality
  - ✓ The first ever business coalition for clean air

Our Data Approach

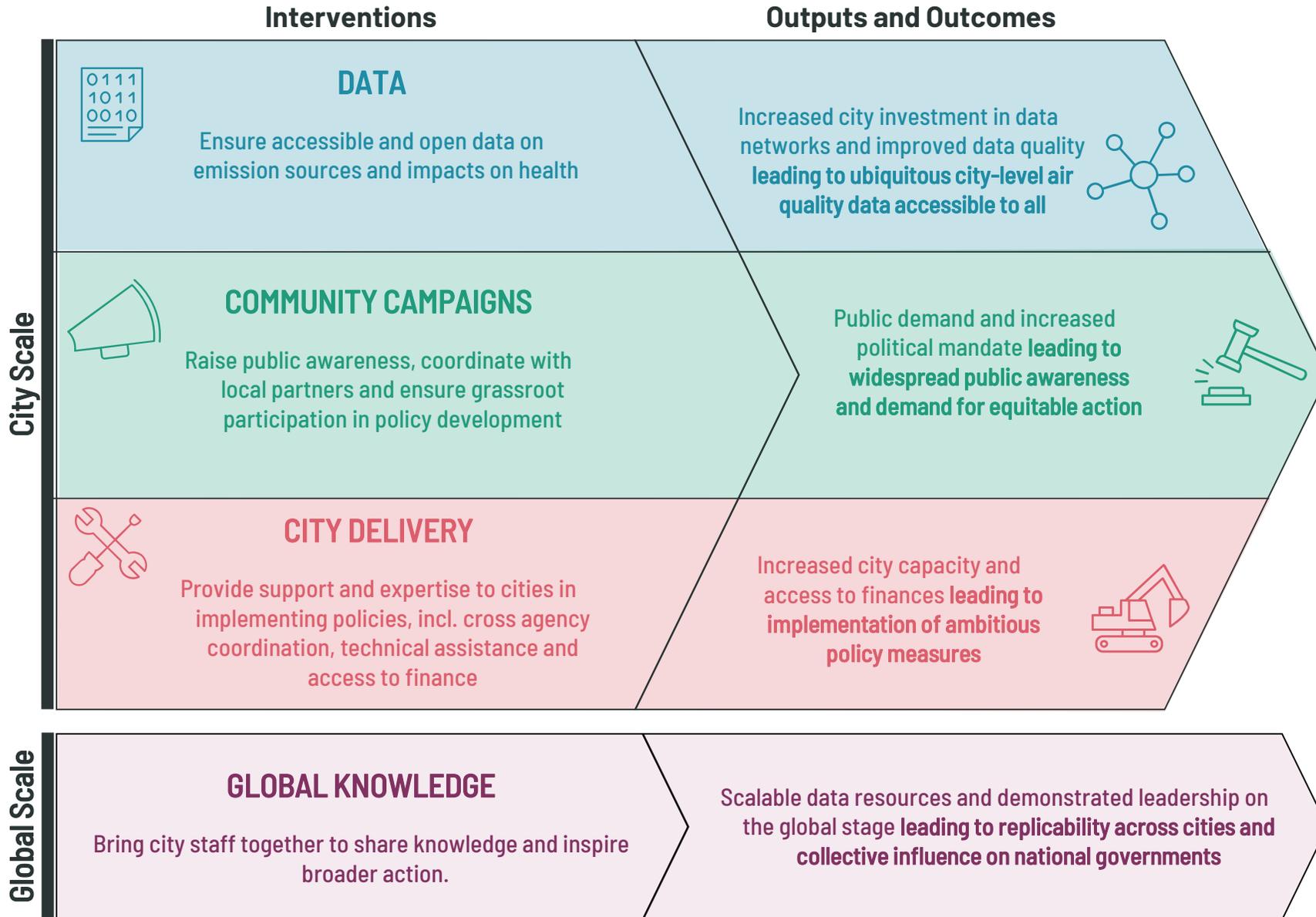o   We aim to make air quality data relevant and available to all, so citizens understand the quality of the air that they breathe, and policymakers have good enough data to make informed decisions.

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Monitoring

Action:
Use SMALL SENSORS to improve accuracy, reduce costs and demonstrate applications of low cost and wearable monitors

Emissions and Source

Action:
Raise SOURCE AWARENESS by developing cost-effective approaches to understanding emissions and sources for city and national policymakers

Data Availability

Action: Support DATA AGGREGATION projects which make AQ data consistent and accessible to all.

Action: Develop TOOLS & SYSTEMS and approaches to combine, manage and contextualise AQ information for city & national action

Capacity for action

Action: Support CAPACITY BUILDING: by developing guidance and provide targeted technical assistance to cities

Action: Increase global LEADERSHIP by improving coordination and knowledge transfer among the AQ data sector

Breathe Cities – built on a data foundation

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Interventions

Outputs and Outcomes

Impact

City Scale

DATA
Ensure accessible and open data on emission sources and impacts on health

Increased city investment in data networks and improved data quality **leading to ubiquitous city-level air quality data accessible to all**

COMMUNITY CAMPAIGNS
Raise public awareness, coordinate with local partners and ensure grassroot participation in policy development

Public demand and increased political mandate **leading to widespread public awareness and demand for equitable action**

CITY DELIVERY
Provide support and expertise to cities in implementing policies, incl. cross agency coordination, technical assistance and access to finance

Increased city capacity and access to finances **leading to implementation of ambitious policy measures**

Global Scale

GLOBAL KNOWLEDGE
Bring city staff together to share knowledge and inspire broader action.

Scalable data resources and demonstrated leadership on the global stage **leading to replicability across cities and collective influence on national governments**

By 2030, 100 cities are part of Breathe Cities: delivering a halving of air pollution and climate emissions within 10 years

National governments create environment to enable local policies, regulation and finance for AQ and climate action

Reduction in climate emissions

Reduction in air pollution emissions

Urban health improvements

We are now scaling the Breathe Cities model

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London

Warsaw

Paris

Sofia

Mexico City

Bangkok
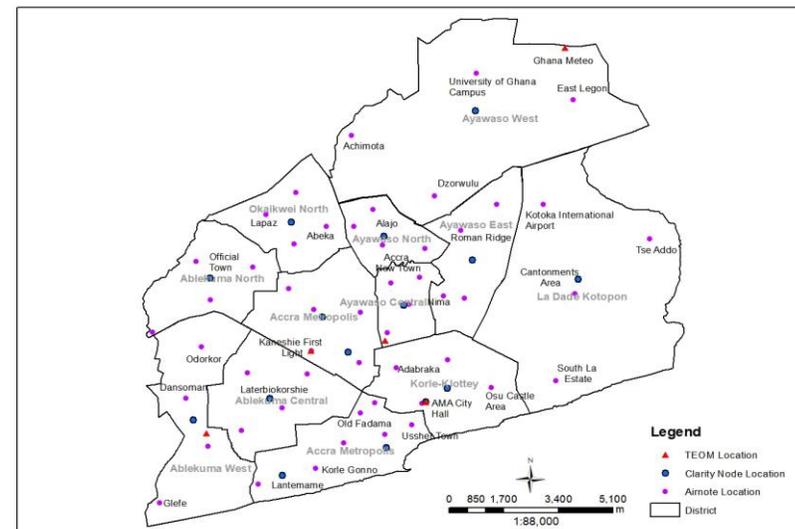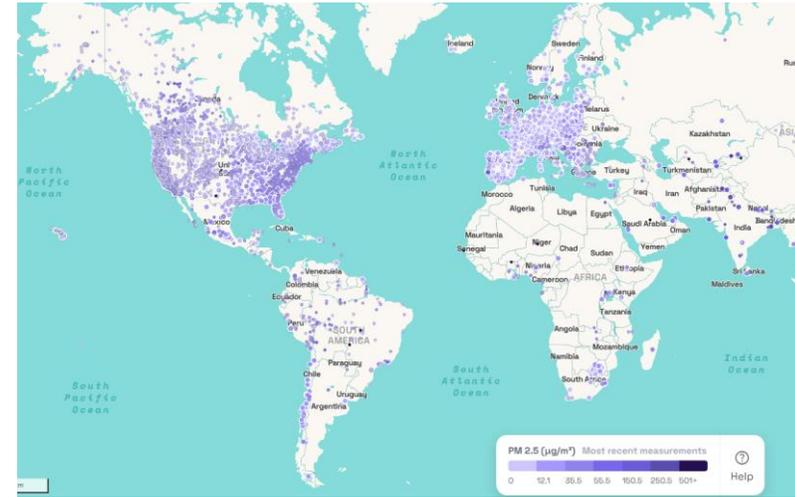
Accra

Nairobi

Rio de Janeiro

Jakarta

Johannesburg

Key:
■ Phase 1 pilot cities, fully operational
■ Phase 2 cites, currently being established
■ Phase 3 potential cities, to be agreed & established by end 2024
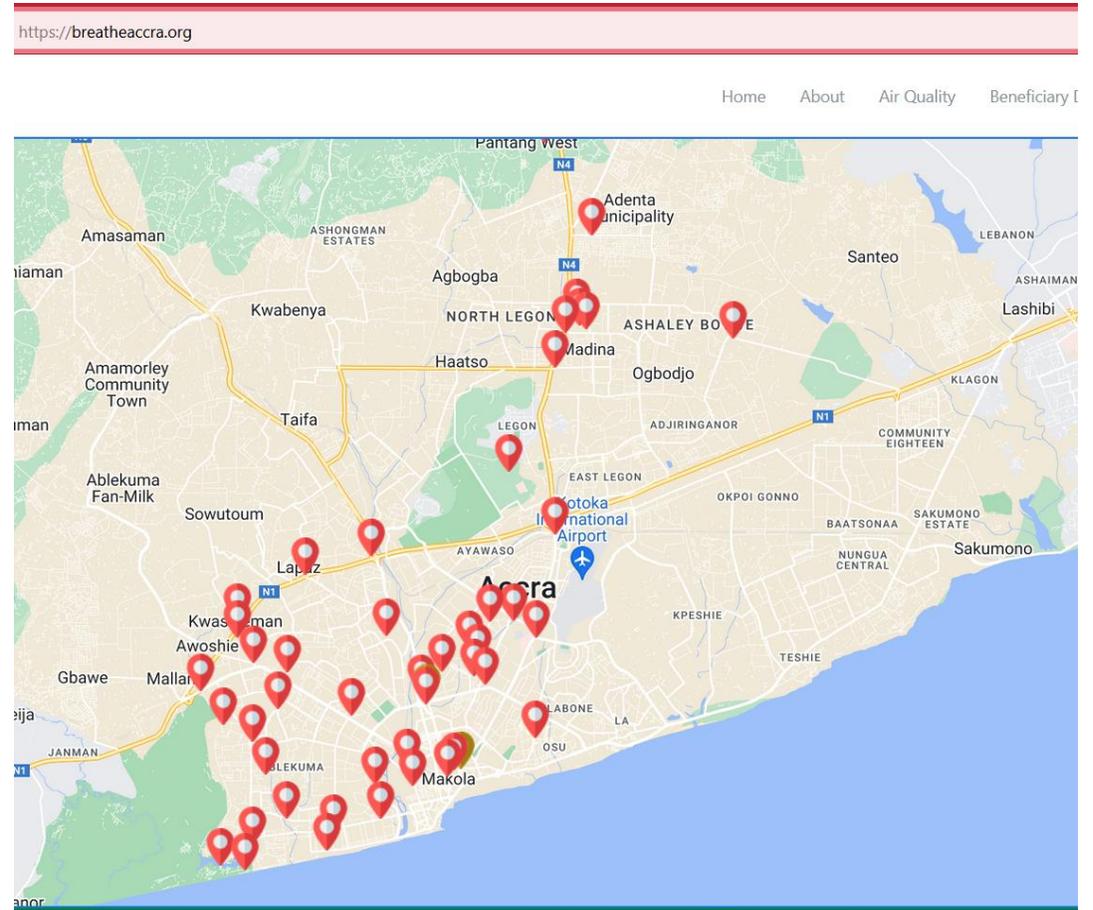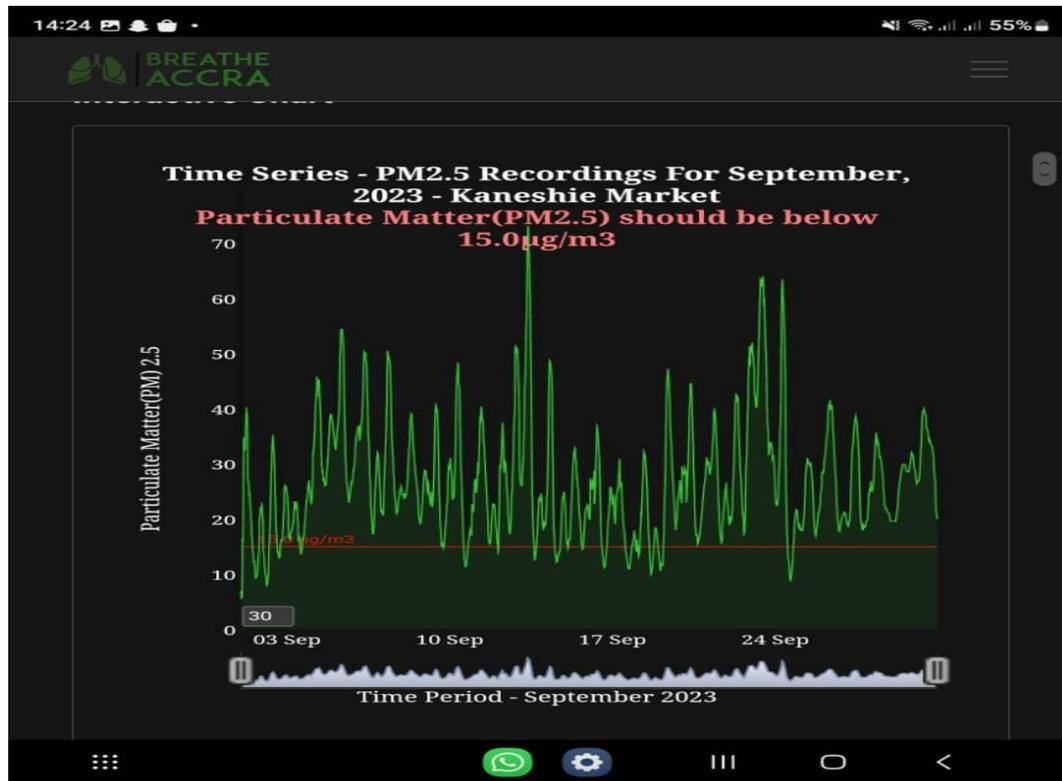
Breathe Accra: Data Component

Leveraging low-cost sensor data to bridge air pollution epidemiologic evidence gap in Accra, Ghana

- Ensure openly accessible hyperlocal air quality data in Accra by deploying a network of 65 sensors

- Foster local capacity for monitoring and managing air quality which hosted only 2 reference grade monitors.

- Generate evidence for air pollution-related diseases in Accra

Breathe Accra: Data Component

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Breathe Accra reports on Air Quality

Breathe Accra: Data Component

The planned activities encompass enhancing stakeholder capacity and generating compelling evidence to support policy actions.

- Deploy additional low-cost sensors

- Engage beneficiary districts to develop interventions for controlling air pollution in identified hotspots

- Utilize data streams for air pollution modeling to inform policy decisions

- Provide training to Environmental Health Officers in the Municipal Health Directorates of beneficiary districts in Health Impact Assessment (HIA) and surveillance for air pollution-related diseases

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Breathe London confirmed our theory of change

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Breathe London was launched to **help local officials identify sources of air pollution and develop effective solutions.**

With 100 lower-cost sensor 'pods' and two specially equipped Google Street View cars, the Breathe London pilot project complemented and **expanded upon London's existing regulatory monitoring network.**

DATA

- Deployment of a **hyperlocal network** to reveal new insights of air pollution hotspots and impacts

  E.g.: 28% higher NO_2 levels at schools in deprived areas compared to wealthy areas
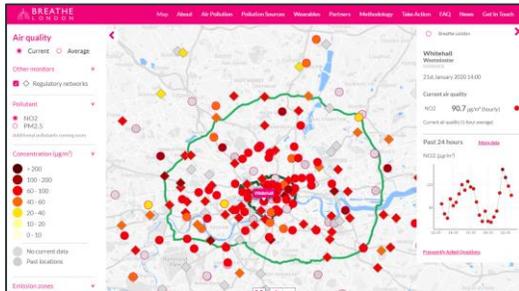
COMMUNITY & CAMPAIGNS

- **Empowering grassroot campaign groups** to support three policy demands:
1. Making air quality data 'actionable'
2. Supporting air quality influencers
3. Raising city-level policy ambition to reduce health inequities

CITY DELIVERY

- Breathe London led to **new AQ policies**:

1. Expansion of the Ultra Low Emission Zone
2. New support to schools to cut pollution
3. Bringing forward zero-emission bus implementation by 3 years
4. Increased fines on major 'red route' roads* to make roads 'cleaner and less congested'
5. New public funding for continuing the project

Note:*Red routes are main arterial roads with NO2 levels 57% higher than an average road

Data to Solution in LMIC

Examples of Our data to solution approach in alignment with our Data strategy
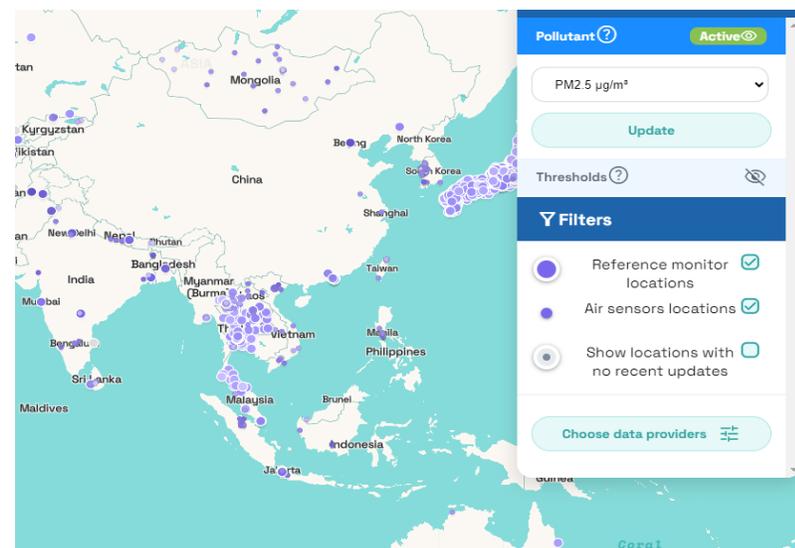

1. Boosting sensor data uptake with Sensor evaluation in West Africa

2. Centre of Excellence on Air Quality in India

3. Data Accessibility through Open AQ

4. A precision approach to activism with wearables

Final Takeaways

- The success of air pollution projects hinges on several key elements, with data playing a pivotal role. CAF's and Breathe Cities theory of change are data driven.

- Small sensors and other innovative technologies provide opportunities but have their challenges. Eg: financing, capacity building, data management, etc.

- In summation, a holistic approach that emphasizes the value of data may help addresses financing challenges and support in development of Breathe Cities type initiatives.

Thanks for listening!

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