Reporting air quality in mainstream media

A case study of Kampala

airqo
Breathe Clean.

MAKERERE UNIVERSITY

AirQo: Air quality monitoring system for African cities.

Problem: Air pollution is a major environmental health issue in many cities. No data on the scale and magnitude of the quality of air in space and time. Traditional air quality monitoring stations are expensive and ill-fitted for many African city environments.

Solution: Custom low-cost sensors designed to work in settings with limited power, connectivity, and varied deployment requirements. Custom built digital platforms for timely access to air quality trends, patterns and insights to inform data-driven decisions to tackle air pollution.

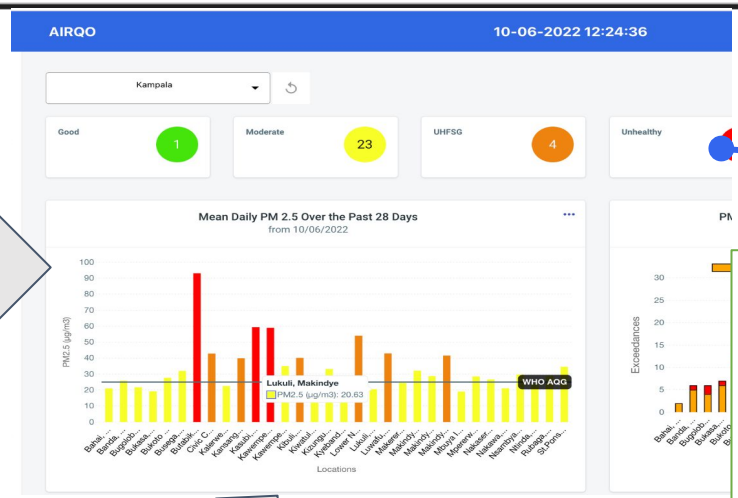
AirQo device installation in Kisumu city, Kenya

www.airqo.net

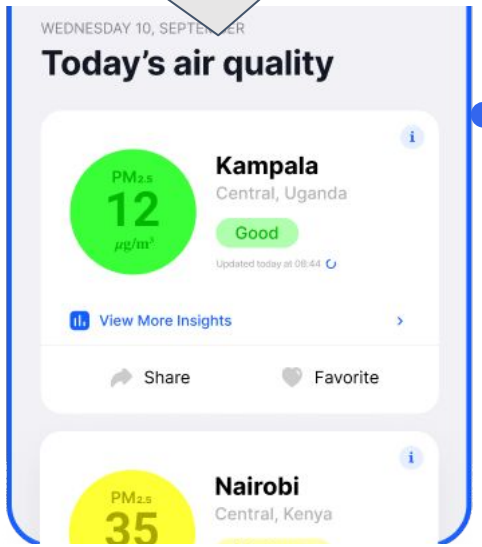
AirQo Data Ecosystem

Custom sensors

A network of **200+** air quality sensors in **16+** African cities in Uganda, Kenya, Nigeria, Madagascar, Ghana, Senegal, Cameroon, Burundi, South Africa, Mozambique.



- API for data access and integration
- Digital Analytics platforms for data access

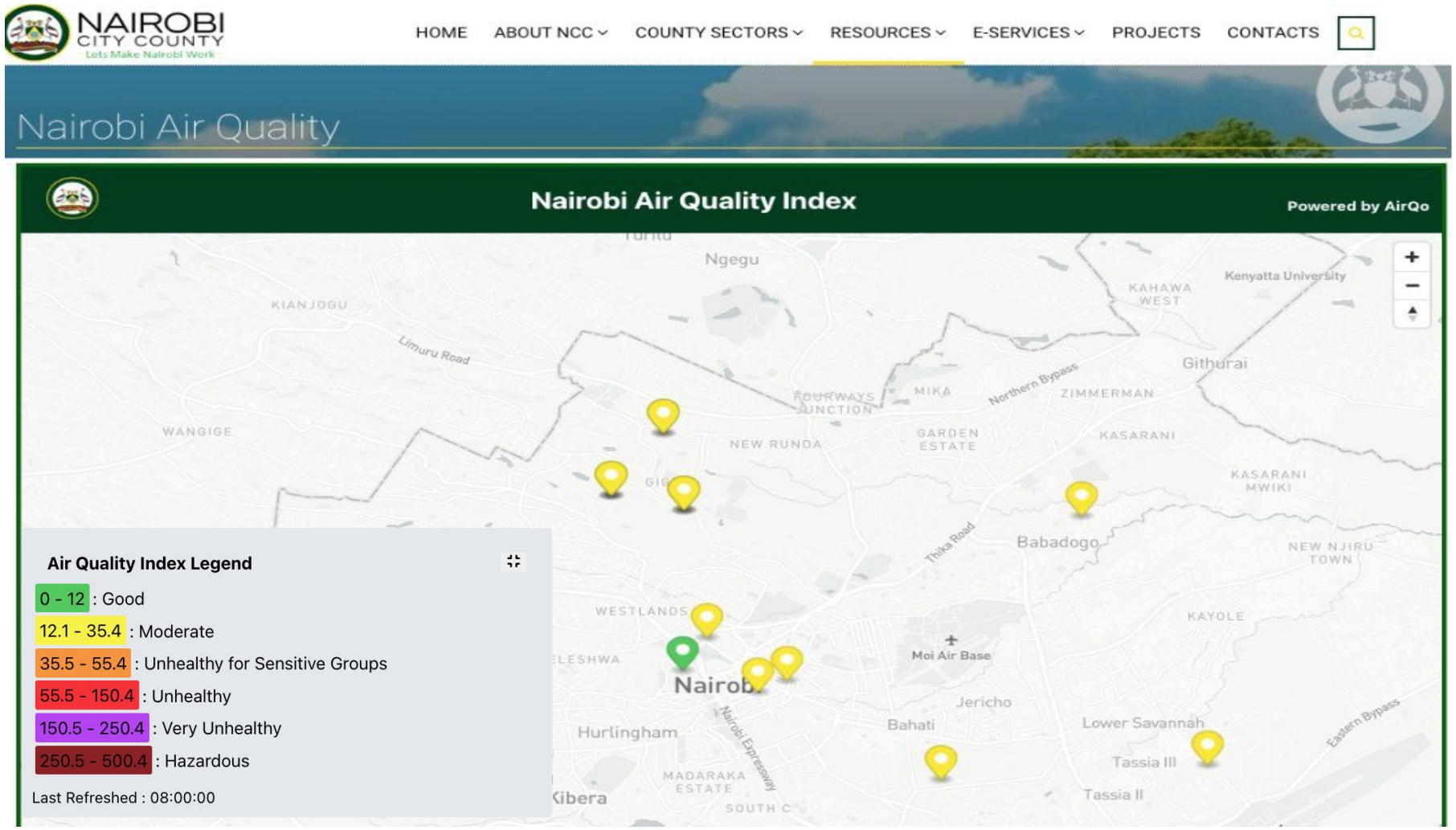


Public-facing data access channels

Air Quality Monitoring across African Cities

- A network of **200+** air quality sensors in **8** African Countries **16+** African cities;
  - Uganda, Kenya, Nigeria, Madagascar, Ghana, Senegal, Cameroon, Burundi, Mozambique, South Africa.

Nairobi air quality monitoring Network



- Integrating real-time Air Quality data from our digital platform
- 14 AirQo air quality monitors in Nairobi

Public Engagement through Media

Public Engagement

Wednesday, May 4, 2022 | UShs2,000 (KSh107 : RF950 : TSh1,600) | /dailymonitor | No.124 | www.monitor.co.ug

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TRUTH EVERY DAY
DAILY MONITOR

Air pollution in Kampala gets worse

Report. A report released yesterday by AirQo, a Makerere University project that monitors air quality, indicates that city dwellers are breathing themselves to death with increasing contaminated air. ...P.6

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THE LIZARD
MAYBE FROM SHISHA SMOKING?

Milestone Ugandan doctors separate conjoined twins

BEFORE AFTER

A team of experts led by Dr Jude Sekabira, a senior consultant Pediatric surgeon at Mulago National Referral Hospital, yesterday successfully operated conjoined twins from Bubrala Village, Bubaraka Sub-county, Hoima District, born to Musa Tarasima and Hellen Kugonza. In a related development, doctors at Mbarara Regional Referral Hospital for the first time last Friday successfully separated conjoined twins that were born at 33 weeks to Ms Rebecca Nkundy. PHOTO/ MULOKOMBOTHO. See story, picture on P.6

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Air pollution at its highest in Kampala, says report

FEATURED

WED 04 MAY, 2022
BY KENNETH KAZIBWE

TAGS:
AIRQO | KCCA | NEMA | PROF. ENGINEER B... | UGANDA | UGANDAN NEWS

The quality of air in Kampala, has hit its worst after exceeding the World Health Organisation permissible levels.

According to Dr. Daniel Okello, KCCA's Director of Public Health and Environment, air pollution levels recorded in the city were higher than the World Health Organization (WHO) recommended levels by 5 to 7 times across all divisions with Kawempe recording the highest concentration at 57µg/m3.

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"For instance, from January – March, 2022, data from the Kampala City air quality monitoring system showed that the average particulate matter 2.5 levels were significantly higher than the WHO recommended levels across all divisions including Central, Kawempe, Nakawa, Makindye, and Lubaga. Kawempe division recorded the highest levels of air pollution at 57.7 µg/m3 during this observation period,"Dr.Okello said.

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He noted that KCCA installed 100 air quality monitors in 25 locations across the city, adding that it is data from the monitors that the report was made.

According to Prof. Engineer Bainomugisha, the leader of the AirQo, a Makerere University project aimed at collecting, analysing and forecasting air quality data in Uganda, Kampala's air quality index, data from their air monitoring systems shows that in the last seven months, pollution increased to its peak in January 2022 across the country.

"Daily air quality levels were largely within the moderate and unhealthy zones, with Kampala metropolitan registering higher pollution levels compared to Jinja and Fort Portal Cities where AirQo has monitoring systems. Pollution hotspots in Kampala metropolitan

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'Air pollution killing more people than HIV'

May 07, 2022

"We lost 23,000 people in 2019 due to HIV in Uganda. In the same period, 26,000 people died as a result of cardiovascular diseases linked to air pollution," he said.

Public Engagement

Challenges and Opportunities

- **Underestimation** of health effects
- **Fair understanding of causes** but still knowledge gaps
- Very **few people know technical terms** like Air Quality Index and $PM_{2.5}$
- However there seems to be **growing concern about in air pollution** and **growing interest in getting and sharing air quality information**

Opportunities

- **Educate** the public about air pollution
- **Provide information** about day to day air pollution that they can use to make decisions and advocate leadership
- **Serve as a bridge** between the public and decision makers

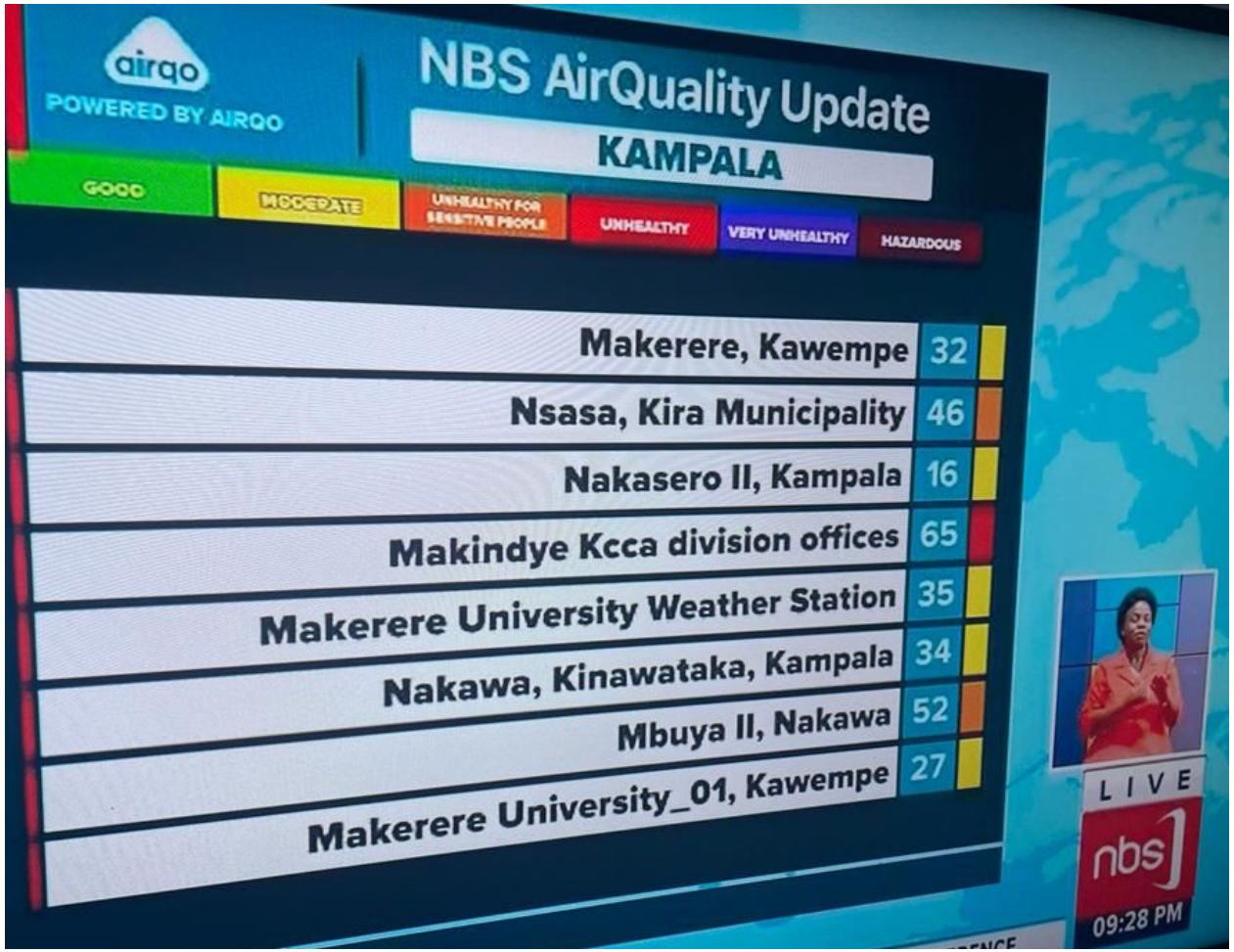
Leveraging digital interfaces to mainstream air quality updates

Potential to reach over 2 million everyday

Mainstreaming daily air quality forecasts

- Daily air quality updates on NBS Television (NEXT Media), one of the leading television stations in Uganda during the 9 PM news hour.
- This milestone is the first of its kind in Africa.

Mainstreaming daily air quality forecasts



Outcomes

- Increase awareness of contextual air quality issues
- Improve capacity for scaling up dissemination of air quality through media
- Influence action from the government and responsible ministries.

Key Learnings

- Learnings
  - Understanding what the numbers mean - AQI Index
  - Effects and sources of air pollution
  - Making air pollution stories relatable to the general public
-

What Next?

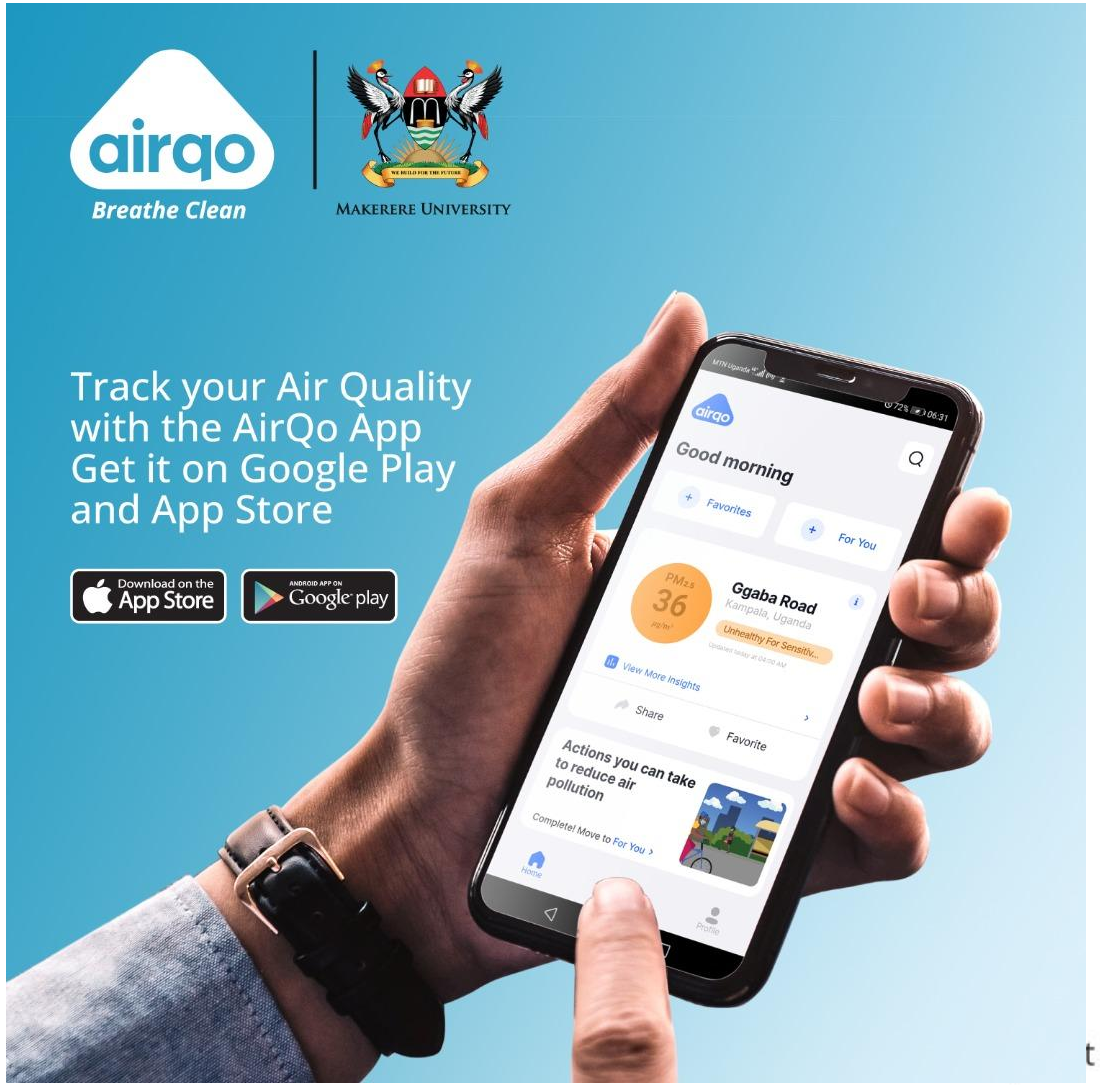
Expounding the role of media in fostering public engagement

- **How can the media increase public dissemination and understanding of air pollution?**
- **Exploring different story angles**
  - Health and environment
  - Policy
  - Economics
  - Climate change
  - Science and technology
- **Using data to enhance evidence-informed engagements and reporting on air pollution**

Do you know how to access your air quality data and information?

Through your mobile device

Scan to know your air!



THANK
YOU