
AIRTRACE LIMITED

Helping East Africa Measure, Understand, and Improve Air Quality.

COMPANY PROFILE

ABOUT US

AirTrace is an environmental technology company providing scientific air quality monitoring, emissions assessment, environmental analytics, and climate intelligence solutions across East Africa. We combine advanced sensor technologies, environmental science, GIS mapping, and data analytics to help governments, industries, developers, researchers, and communities understand and reduce air pollution. We allow clients to move from periodic environmental reports to continuous, data-driven environmental management.

OUR MISSION

To make clean air measurable, actionable, and accessible by delivering reliable air quality intelligence that protects public health, supports sustainable development, and enables evidence-based environmental decisions.

OUR VISION

To enable healthier communities, cleaner industries, and more sustainable cities through reliable air quality data and science.

THE CHALLENGE/PROBLEM STATEMENT

Air pollution is one of the greatest environmental and public health challenges of our time, causing millions of premature deaths globally every year. Poor air quality contributes to respiratory and cardiovascular diseases, reduces productivity, damages ecosystems, and affects the quality of life for millions of people.

Across much of East Africa, the challenge is even greater. Air quality monitoring remains limited, leaving significant gaps in reliable environmental data. At the same time, rapid urbanization, expanding industries, and increasing vehicle emissions are placing growing pressure on air quality. Governments are strengthening environmental regulations, while businesses are increasingly expected to measure their environmental impact through ESG reporting and carbon accounting. However, without accurate and accessible air quality data, it is difficult for governments, industries, and communities to identify pollution sources, comply with regulations, and make informed decisions.

At AirTrace, we believe that **“you cannot improve what you do not measure”**. We bridge this gap by providing reliable air quality monitoring, emissions measurement, and scientific

environmental data through affordable, scalable, and science-driven solutions. By empowering organizations with accurate environmental intelligence, we help protect public health, support regulatory compliance, and contribute to a cleaner, healthier, and more sustainable future.

LEADERSHIP

Wandera Kisimbiri

Founder & Director

Wandera Kisimbiri is an environmental scientist with expertise in air pollution, emissions measurement, and environmental analytics. His work focuses on understanding the sources, behaviour, and impacts of air pollutants, with a particular interest in transport-related emissions and urban air quality.

Wandera Kisimbiri is a researcher interested in climate and air quality. He is currently pursuing a PhD at Stockholm University, Sweden, where his research focuses on the atmospheric chemistry of air pollutants from non-exhaust emissions, particularly gases and particulate matter derived from vehicle braking, and top-of-rail friction modifier products during wheel–rail contact

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Education

- a) Doctor of Philosophy (PhD): Chemistry of Non-Exhaust Emissions from Vehicle Brakes and Top-of-Rail Friction Products; Stockholm University, Sweden
- b) Master of Science (M.Sc.): Atmospheric Chemistry; University of Gothenburg, Sweden
- c) Bachelor of Science (B.Sc.): Industrial Chemistry; Multimedia University of Kenya, Kenya.

Wandera Kisimbiri founded AirTrace to bridge the air quality data gap in East Africa by providing accurate air quality and emissions measurements that help governments, industries, researchers, and communities make informed environmental decisions.

OUR CORE VALUES

1. **Scientific Excellence:** We deliver accurate, reliable, and evidence-based environmental solutions.
2. **Integrity:** We act with honesty, transparency, and professionalism in everything we do.
3. **Innovation** – We leverage advanced technology to solve complex environmental challenges.

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4. **Sustainability:** We support solutions that protect people, the environment, and future generations.
 5. **Collaboration:** We build strong partnerships to achieve meaningful environmental impact.
 6. **Impact:** We are committed to creating measurable improvements in air quality, public health, and environmental decision-making.

INDUSTRIES WE SERVE

AirTrace partners with organizations across the public and private sectors to deliver reliable air quality monitoring and environmental intelligence solutions.

Healthcare: Hospitals, healthcare facilities, and public health institutions

Education: Schools, universities, and research institutions

Construction & Real Estate: Developers, contractors, and infrastructure projects

Manufacturing & Industry: Manufacturing plants, cement, steel, and processing industries

Transport & Logistics: Fleet operators, public transport, ports, railways, and airports

Government & Municipalities: National and county governments, environmental agencies, and urban planners

Development Partners & NGOs: International organizations, NGOs, and climate initiatives

Energy & Utilities: Energy producers, oil depots, and utility providers

Commercial & Corporate: Offices, commercial buildings, and businesses pursuing ESG and sustainability goals

OUR IMPACT

At AirTrace, we are committed to creating measurable environmental and social impact through science-driven air quality solutions. Our work contributes to:

Protecting Public Health by reducing exposure to harmful air pollutants

Building Cleaner and Healthier Cities through improved air quality management

Supporting Evidence-Based Decision Making with reliable environmental data and analytics

Strengthening Environmental Compliance through accurate monitoring and reporting

Advancing Climate Action by supporting emissions reduction and sustainability initiatives

Enabling Sustainable Urban Development with data-driven planning and pollution mapping

AirTrace: Helping East Africa Measure, Understand, and Improve Air Quality.

Promoting Environmental Accountability through transparent monitoring and reporting

Contributing to Global Sustainability Goals, including the **WHO Air Quality Guidelines** and the **United Nations Sustainable Development Goals (SDGs)**

AIR PARAMETERS MONITORED

AirTrace monitors key air pollutants and environmental conditions to provide a comprehensive assessment of air quality.

Air Pollutants	Environmental Conditions
PM _{2.5}	Temperature
PM ₁₀	Relative Humidity
NO _x	
Carbon Monoxide (CO)	
Ozone (O ₃)	
Volatile Organic Compounds (VOCs)	



OUR SERVICES

1. Indoor Air Quality Monitoring

We help create healthier indoor environments through continuous air quality monitoring and scientific assessments for schools, hospitals, offices, universities, and commercial buildings.

Services include:

- Indoor air quality monitoring
- Health risk assessments
- Air quality reporting
- WHO guideline compliance assessments

2. Construction Air Quality Monitoring

Supporting construction projects with real-time air quality monitoring to protect workers, nearby communities, and ensure environmental compliance.

Services include:

- Dust and particulate monitoring
- Environmental compliance monitoring
- Real-time monitoring and reporting

3. Transport Emissions Monitoring

Providing data-driven solutions to understand and reduce pollution from transport systems across East Africa.

Services include:

- Fleet emissions monitoring
- Roadside air quality monitoring
- Transport emissions audits
- Pollution hotspot mapping
- Urban air quality assessments

4. Industrial Emissions Monitoring

Helping industries monitor emissions, meet environmental regulations, and improve operational performance.

Services include:

- Continuous Emission Monitoring Systems (CEMS)
- Stack emissions monitoring
- Emissions analytics
- Compliance reporting and dashboards

5. Air Quality Data & Analytics

Transforming environmental data into actionable insights for better planning and decision-making.

Solutions include:

- Sensor network deployment
- Pollution mapping
- Environmental dashboards
- AI-powered air quality forecasting
- Health risk alerts
- Environmental data analytics

6. Carbon Footprint & ESG Reporting

Supporting organizations in measuring and managing their environmental impact while meeting sustainability and reporting requirements.

Services include:

- Carbon footprint assessments
- Supply chain emissions analysis

OUR SOLUTIONS

AirTrace provides end-to-end environmental intelligence solutions, including:

- Air Quality Monitoring
- Emissions Monitoring
- Environmental Compliance
- Pollution Mapping
- GIS & Spatial Analysis
- Air Quality Forecasting
- Environmental Dashboards
- Environmental Data Analytics

Supporting Global Sustainability

AirTrace contributes towards:

- SDG 3 – Good Health and Well-being
- SDG 9 – Industry, Innovation and Infrastructure
- SDG 11 – Sustainable Cities and Communities
- SDG 13 – Climate Action.



The AirTrace Advantage

Unlike traditional environmental consultancies that rely on periodic site visits, AirTrace provides continuous and real-time air quality and emissions measurements using advanced monitoring technologies. Led by experts with advanced research in atmospheric chemistry and air pollution measurements, we deliver reliable scientific data that supports environmental compliance, informed decision-making, and sustainable solutions.

Our integrated approach enables clients to:

- Detect pollution early
- Monitor compliance continuously
- Make faster decisions
- Reduce environmental risks
- Improve sustainability performance

Why Choose AirTrace?

- Scientific, data-driven environmental solutions
- Advanced air quality monitoring technology
- Real-time monitoring and cloud-based dashboards
- Experienced environmental scientists
- Regulatory compliance support
- Affordable and scalable monitoring solutions
- Tailored solutions for government and industry
- Trusted partner for sustainable development

Our Coverage

Based in Kenya, AirTrace serves clients across East Africa, with solutions designed for:

- Kenya
- Uganda
- Tanzania
- Rwanda
- Ethiopia
- South Sudan



Let's Build a Cleaner Future Together

Whether you need air quality monitoring, emissions assessments, environmental compliance, or climate intelligence, AirTrace is your trusted partner for science-driven environmental solutions.

Get in touch today to discuss your project!

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