



Activation insights brief

[PUMZI YA NAIROBI: MISITU YETU, WAJIBU WETU
(Michuki–Parklands Clean Air Run)]

UrbanBetter Cityzens [NAIROBI] Hub

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Activation overview

Date of activation:

[16th-08-2025]

Problem Identification and Framing:

The main issue we focused on was the shrinking of Nairobi's forests and green spaces due to encroachment and neglect, which weakens their ability to filter air pollutants and worsens the city's air quality. Many residents are unaware of how vital these spaces are for both environmental protection and public health, leaving them vulnerable to the effects of poor air quality.

We chose to focus on key green areas like John John Michuki Memorial Park and City Park, with the event aiming at raising awareness, rallying public support and encouraging policy action to protect and expand these vital spaces. By deepening the public's connection to urban nature, we hope to foster a lasting culture of environmental stewardship and healthier urban living.

People affected include local residents, pedestrians and communities who rely on these green spaces for recreation and wellbeing, as well as broader urban populations exposed to harmful air pollutants in traffic-heavy areas. Youth and community groups, in particular, play a central role in both experiencing these challenges and leading the call for change.

Our primary question(s) were:

- In what ways can community-led monitoring (citizen science, mobile sensors and story mapping) influence decisions around cleaner air and better urban planning in Nairobi?
- How does the proximity of urban forests and green spaces to residential areas influence actual or perceived health and well-being?
- What role can the youth and community groups play in advocating for the maintenance and expansion of urban forests and other green spaces in Nairobi?



Approach

Where and when did it take place?

The Pumzi ya Nairobi: Misitu Yetu Wajibu Wetu (Michuki-Parklands Clean Air Run & Walk) took place on Saturday, 16th August 2025, beginning and ending at John Michuki Memorial Park. The activation ran from 7:00 AM to 12:00 PM and was designed to blend physical activity, citizen science and storytelling.

The activation featured two distinct routes to engage both runners and walkers:

Run Route (Approx. 10.1KM)

Start at John John Michuki Memorial Park → Kijabe Street → Harry Thuku Road → Uhuru Highway → Taarifa Road → Laxminaryan Road → Parklands Road → Limuru Road (past City Park) → Karura Avenue Roundabout (U-turn) → Murang'a Road → back to John Michuki Park.

Walk Route (Approx. 6.3KM)

Start at John Michuki Memorial Park → Kijabe Street → Harry Thuku Road → Uhuru Highway → Taarifa Road → Laxminaryan Road → Parklands Road → Limuru Road (U-turn at City Park) → Murang'a Road → back to John Michuki Memorial Park.

Why was this location chosen?

- Strategic green spaces: The route deliberately connected John Michuki Memorial Park, City Park and surrounding roads to showcase the contrasts between tree-covered areas and heavily built-up, traffic-congested roads.
- Air pollution hotspots: Key sections such as Kipande Road, Murang'a Road and Limuru Road are high-traffic areas, making them ideal to demonstrate pollution exposure risks.
- Accessibility: John Michuki Memorial Park provided a central, safe and symbolic start and end point, emphasising the role of green spaces in Nairobi's urban life.
- Strong partners: The event benefited from support by the John Michuki Memorial Park Station Manager and Friends of Karura, both of whom play critical roles in stewarding Nairobi's urban forests.
- Community visibility: The route passed through busy and mixed-use areas, ensuring both meaningful data collection and engagement with everyday residents.



Who was involved? (who and numbers)

We had around 417 participants at the activation. This included:

- Parklands residents
- Youth groups and local CBOs
- Students from nearby universities
- Urban planning interns
- Local administration and City officials
- Mental health practitioners
- Media representatives (like...)

How we reached out to people:

We shared the run through WhatsApp groups, personal networks, social media posts, website and word of mouth.

How was the data collected?

During the activation, we collected two types of data. The wearable air quality sensor collected data on PM2.5 along the route. We used the Cityzens app to collect geotagged photo/text/audio data on potential sources of hazardous or protective health/climate exposures in public spaces used for physical activity or encountered during physical activity. We also had conversations with residents along the route to understand their experiences with air pollution and daily challenges in the area. Moreover, we conducted audio interviews with locals in the area to understand how green spaces affect their daily lives.

Did you encounter any limitations, and how did you overcome them?

Technical Challenges



- Some Run Leaders needed more orientation on the functionalities of the sensors used for air quality monitoring.
- The AirCasting app occasionally crashed, especially when trying to open the map.

How we addressed it: The Run Leaders with prior sensor-handling experience provided real-time troubleshooting support.

Route Confusion

- Road markings did not fully align with the earlier-mapped route, particularly at the Taarifa-Laxminaryan-Parklands junction.

How we addressed it: Marshalls and volunteers briefly re-routed Cityzens on the ground to avoid running against vehicle traffic.

Event Management & Timing

- The run started later than the stipulated time.
- Some participants arrived without registering beforehand, leading to delays.
- Roles and responsibilities shifted during the event, causing confusion.
- The program was not followed as earlier agreed. More people were given a platform to speak than planned.

How we addressed it: The team adjusted by redistributing tasks in real-time to keep activities moving.

Limited Resources

- There were not enough branded t-shirts and refreshments to adequately cater for all participants.
- Water points were fewer than needed, and some participants took more than their share of snacks and water.

How we addressed it: Volunteers monitored distribution as best as possible, and participants were encouraged to share resources equitably.

Public Awareness

- Some participants and bystanders did not fully understand the purpose of the activation.



How we addressed it: Run Leaders and volunteers took time to explain the goals of the event along the way.

What lessons did you learn from these limitations?

- For future activations, we will schedule a dedicated pre-event training session and simplify app-use protocols.
- For next time, route marking will be done at least an hour before the event starts, as well as the stationing of route marshals.
- For future activations, we'll emphasise pre-registration, stick to assigned roles and conduct a thorough briefing with all volunteers, marshals and Run Leaders before flag-off.
- For upcoming events, we will make adequate plans for extra supplies for unregistered participants, encourage participants to carry reusable water bottles and assign a dedicated team to manage refreshments.
- In future, we'll enhance awareness by creating simpler pre-event communication materials, providing short on-the-spot orientations and equipping marshals with talking points.

Key insights

Findings

Brief description of the route(s):

Running - Start at John Michuki Memorial Park, Nairobi → Run along Kijabe Street and Harry Thuku Road → Join Uhuru Highway → Branch off at Taarifa Road → Continue onto Laxminaryan Road → Run through Parklands Road → Join Limuru Road, passing by City Park → Continue up to the Karura Avenue Roundabout and take a U-turn → Head back along Limuru Road → Join Murang'a Road → Run back to John Michuki Memorial Park via Kijabe Street.



Walking - Start at John Michuki Memorial Park, Nairobi → Walk along Kijabe Street and Harry Thuku Road → Join Uhuru Highway → Branch off at Taarifa Road → Continue onto Laxminaryan Road → Walk through Parklands Road → Join Limuru Road and take a U-turn at City Park → Head back along Limuru Road → Join Murang'a Road → Walk back to John Michuki Memorial Park via Kijabe Street.

- **Average PM reading over the route(s)** average of 32 $\mu\text{g}/\text{m}^3$, which is more than double the recommended WHO safe levels, which is 12 $\mu\text{g}/\text{m}^3$.
- **Any areas with higher than average air pollution?**
 - Globe Roundabout, Kipande Road and some stretches along Limuru Road recorded higher levels.
 - A notable spike was observed near the construction site on Limuru Road, close to 2nd Parklands Avenue.
 - **In those areas, did you observe any notable potential sources of air pollution, traffic conditions, or types of urban spaces? -**
 - Limuru Road: Dust and emissions from heavy construction machinery.
 - Globe Roundabout: Persistent heavy traffic congestion.
 - Fig Tree Fresh Food Market: Illegal waste dumping.
 - Below-average air quality noted along Kijabe Street, Kipande Road, Taarifa Road, around the Kenya Institute and Murang'a Road.
 - **Potential impact of these observations on air quality, health, physical activity or climate vulnerability -**
 - Poorly defined footpaths close to busy roads increase accident risk and discourage walking, reducing safe opportunities for physical activity.
 - Illegal waste dumping contributes to foul smells and environmental hazards.
- **Any areas with lower-than-average air pollution?**
 - Kijabe Street: Lower traffic volumes and vegetation cover near the park.
 - Taarifa Road: Better pedestrian pathways encouraged walking.
 - Kipande Road: Availability of walkways supported pedestrian use.



- In those areas, did you observe any protective exposures that could contribute to lower air pollution, e.g. types of urban spaces? -
 - Green spaces along Kijabe Street and Kipande Road helped filter air pollutants.
 - Safe pedestrian pathways on Taarifa Road and Kipande Road encouraged walking instead of vehicle use.
- Potential impact of these observations on air quality, health, physical activity or climate vulnerability-
 - Green cover and walkable spaces improve air quality and promote physical activity.
 - Kijabe Street had less vehicle traffic; therefore, fewer air pollutants were recorded along the street.

Describe other health or climate-related observations relevant for phys/ical activity

- The area suffers from a lack of modern infrastructure, such as flyovers, which contributes to traffic congestion and reduced accessibility.
- Overall perception of walkability over the route(s)-
 - Walkability is limited, especially approaching highways, due to a lack of proper pedestrian pathways.
 - Dependence on vehicles in these areas contributes to higher air pollution.
 - Stronger policies and penalties are needed to address motorists' encroachment on pedestrian walkways.
- Any areas with better built environment features
 - Kipande Road, Taarifa Road, Limuru Road and Kenya Education Management Institute
 - What were these features noted?
 - Presence of zebra crossings (Limuru Road), designated pedestrian pathways (Kenya Education Management Institute) and green spaces (Taarifa and Kipande Roads).



- Potential impact of these observations on air quality, health, physical activity or climate vulnerability -
 - These features enhance safety, encourage walking, reduce reliance on vehicles, and green cover helps filter air pollutants- positively impacting air quality, physical activity and climate resilience.
- Any areas with riskier built environment features
 - Limuru Road, Fig Tree area and the junction between Limuru Road and Murang'a Road.
 - What were these features noted? In some parts, we found:
 - Lack of demarcated pedestrian pathways (Limuru Road), open drainage/sewers along footpaths and absence of proper hoarding at construction sites.
 - Potential impact of these observations on air quality, health, physical activity or climate vulnerability-
 - Increased accident risks, exposure to health hazards from open drains and safety concerns around construction areas. These discourage walking and worsen urban vulnerabilities.

Summary

The average PM_{2.5} reading recorded across the Michuki–Parklands routes was 32 µg/m³, more than double the WHO-recommended safe limit of 12 µg/m³. Higher pollution levels were noted around Globe Roundabout, Kipande Road and Limuru Road, with a sharp spike near the construction site along Limuru Road. These areas had heavy traffic, dust and emissions from machinery, alongside illegal waste dumping near Fig Tree Fresh Food Market. Participants noted foul smells, discomfort and the risks posed by poorly defined footpaths close to busy roads, which discouraged walking and increased accident risks.

Cleaner air was observed near Kijabe Street, Taarifa Road and sections of Kipande Road, where traffic volumes were lower and green spaces provided natural air filtration. These areas also had safer pedestrian pathways that encouraged walking instead of reliance on vehicles. Features like zebra crossings, shaded walkways and vegetative cover improved comfort, safety



and air quality, showing how infrastructure and greenery can directly promote physical activity and resilience.

By contrast, Limuru Road, the Fig Tree area and parts of Murang'a Road posed greater risks due to the lack of clear pedestrian pathways, open drainage along footpaths and unsecured construction sites. These hazards discouraged walking, exposed people to health risks and heightened urban vulnerability.

Overall, the activation revealed a clear link between urban design, air quality, health and physical activity. Green spaces and safe infrastructure foster healthier, more active communities, while traffic-heavy, poorly planned, and polluted areas not only worsen air quality but also discourage mobility and increase health risks.

Prescriptions

We describe our activations as running diagnostics on our environments. Based on our findings, we suggest the following prescriptions:

1. Specific interventions that can improve conditions in high-pollution or high-risk areas?

- ❖ Building and clearly demarcating **sidewalks and cycling lanes** on roads that currently don't have them to improve walkability and safety.
- ❖ Enforce **vehicle emission checks** and promote **cleaner transport options**.
- ❖ Repair and cover all **open manholes** and maintain sewer lines regularly.
- ❖ Proper hoarding is to be done around construction sites
- ❖ Introduce stricter waste management enforcement to eliminate illegal dumping.
- ❖ Install roadside vegetation barriers (e.g., trees, hedges) near traffic hotspots to absorb pollutants.
- ❖ Improve traffic flow management at congestion points such as Globe Roundabout to reduce idling emissions.

2. Protective factors that can be scaled or replicated?



- ★ Expand **green spaces** with trees and vegetation to help clean the air and cool the environment.
- ★ Create more **dedicated walkways and footbridges** to encourage walking and reduce car use.
- ★ Replicate shaded pedestrian pathways (like on Taarifa Road) across other parts of Nairobi.

3. Next steps for action by residents, civil society, industry, and decision-makers?

- **Residents & Civil Society** - Spread awareness through **digital advocacy**, street campaigns and school programs. Demand safer streets by joining **local clean air or urban planning initiatives**.
- **Government & City Officials** - Expand **non-motorised transport (NMT) policies**.
- Incorporate feedback from community activations into **urban plans and budgets**.
- Ensuring **affordable and sustainable transport** is part of Nairobi's climate and health agenda.
- **Industry & Businesses** - Support and fund **community greening and clean-up projects**. Encourage the use of cleaner fuels and reduce emissions from delivery and service vehicles.
- **Foster cross-sectoral partnerships** (public health + urban planning + environmental groups) to align interventions.
- Keep the momentum by **integrating air quality** into Nairobi's health, safety and climate resilience priorities.
- **Promote a walking culture** – Make walking the default for short distances through safer sidewalks, shaded streets and public campaigns.
- **Improve waste management** – Strengthen **collection systems, encourage recycling and strictly discourage open burning of waste**.
- Policymakers should **develop and enforce policies**, including penalties, for motorists who violate pathways designated for residents.

4. Suggested role for UrbanBetter Cityzens to support such action.

- Present the findings to inform discussions and influence policies. (Nairobi City County Air Quality Action Plan)



- Continue **digital storytelling** and data sharing through social media to push for change.
- Lead and collect **signatures for petitions** calling for better air quality policies and infrastructure improvements. To be done quarterly during each major activation.
- Helping to bridge the gap between common mwananchi and decision-makers by having public participation platforms (policy-level).
- Public engagement and awareness on the benefits of physical activity and how that helps air quality through more regular activations.



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If you would like to get in touch to find out more about this activation or to explore how Cityzens can support ongoing efforts to create healthy, sustainable places, send us an email at NAIROBI@urbanbetter.science

About us

Cityzens is an Africa-led, youth-driven global movement that uses a combination of physical activity and citizen science to advocate for healthy, sustainable places and enhance meaningful youth participation in decisions that shape the future of cities.

The first step of our PRECISION ADVOCACY process involves an activation: a physical activity-based event where we collect data (using wearable sensors and the Cityzens app) and run diagnostics to interrogate a pre-identified issue. We then use the activation's findings to inform stakeholder engagements and physical activity-based public awareness campaigns.

This activation insights brief summarises findings from our recent activation for key decision makers.

For more information about UrbanBetter and Cityzens, visit cityzens.urbanbetter.science