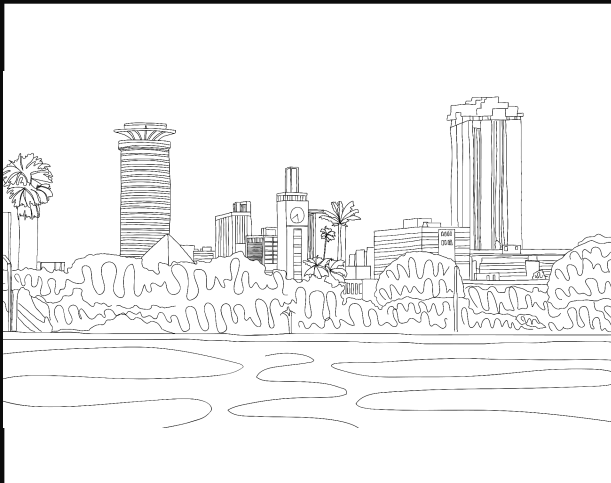


Nairobi, Kenya		
Population	5 million	
Size	731 km ²	
GHG Profile	6,325,371 tCO ₂ e total or 1.27 tCO ₂ e per capita in 2023	
High-emission sectors	Transport (47%) Waste (31%) Energy & Buildings (22%)	

From Planning to Implementation

Nairobi, Kenya's capital and its fastest-growing city, contributes 5% of national emissions. Rapid urbanisation and unplanned settlements, driven by rapid population growth and urban poverty make urgent climate action critical to reducing emissions, strengthening resilience, and ensuring sustainable development in East Africa's key economic hub. The **Urban Climate Action Programme – Climate Action Implementation (UCAP CAI)** is partnering with Nairobi to accelerate priority actions under its 2022 Climate Action Plan, driving carbon neutrality ambitions by 2050. Technical assistance focuses on **renewable energy and efficiency in municipal buildings**, improved **waste management systems**, and strengthened institutional capability for **sustained climate governance**.



Energy & Buildings

Greening Nairobi's Markets & Municipal Buildings

Supports the adoption of renewable energy through a pre-scale-up demonstration project

- **Pre-scale-up energy project operationalised at City Park Market**, demonstrating scalable renewable energy solution with the installation of a solar-powered cold storage facility, improving food preservation and reducing organic waste for over 160 traders.
- **Energy monitoring infrastructure deployed**, supporting evidence-based decision-making and creating a baseline for targeted efficiency improvements and investment planning.



Waste Management

Expanding Organic Waste Treatment in Nairobi, starting with City Markets

Supports food innovation, promotion of the waste circular economy, and waste management.

- **Green Market Roadmap developed** a framework for scaling organic waste diversion across city markets, integrating composting and potential biogas solutions to reduce landfill waste.
- **Public-private collaboration strengthened in the waste sector**, enhancing implementation capacity by engaging key market actors to co-develop locally viable organic waste solutions that align with broader city climate goals.



Climate Mainstreaming

Embedding climate actions into city processes


Supports the integration of climate action into policies and governance structures

- **The Nairobi City County Climate Change Act (2024) adopted**, clarifying climate governance responsibilities, setting a precedent for legal integration of climate action at local level, and aligning with national commitments.
- **Climate Change Steering Committee institutionalised**, strengthening city governance by

ensuring a dedicated body oversees climate integration, validates mainstreaming strategies, and aligns sectoral policies with Nairobi's Climate Action Plan.

How will Nairobi tackle organic waste with clean energy?

The project will address the 20% organic produce waste generated across Nairobi's markets by piloting a **10-tonne solar-powered cold storage system** at City Park Market. It aims to reduce high electricity costs and unreliable grid supply, providing sustainable storage for 165 traders. It will save **841 tonnes of food waste** annually and cut **CO₂e emissions by 1,130 tonnes/year**, reducing market food waste emissions. This initiative demonstrates the potential of renewable energy to improve food preservation and losses. Scaling to all 53 markets could **prevent 44,500 tonnes of waste and 59,900 tCO₂ emissions yearly!***

 [Read more](#) [Sakaja inspects solar-powered cold room at City Market]

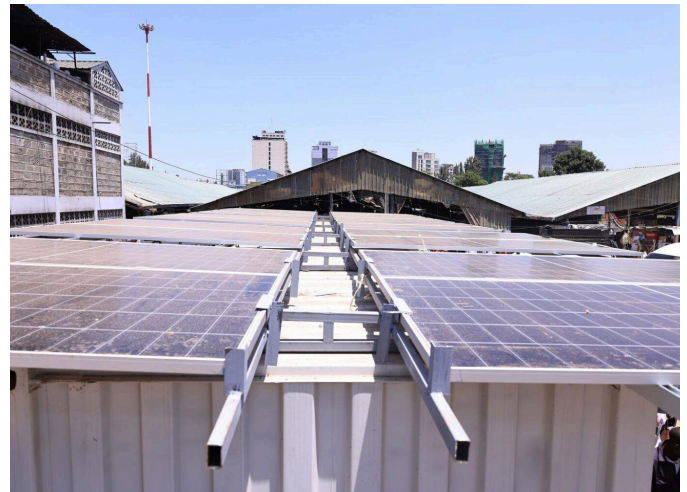


Figure 1: 10-tonne solar-powered cold storage system at City Park Market, Nairobi



Figure 2: Snapshot of Nairobi's waste sector

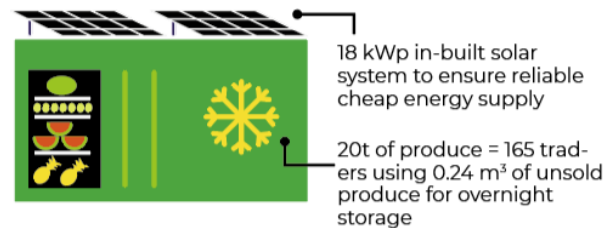


Figure 3: Solar-powered cold storage concept



"This initiative is part of our ongoing efforts to modernize Nairobi's markets and improve food security for both traders and consumers."

Governor Arthur Sakaja Johnson, City of Nairobi

Supported by UK government funding (2022–2025), the Urban Climate Action Programme – Climate Action Implementation (UCAP CAI) accelerates progress against the delivery of Climate Action Plans (CAPs) in 15 Global South cities, in line with the Paris Agreement's 1.5°C target.

UCAP CAI Cities: Accra - Addis Ababa - Dar Es Salaam - Johannesburg - Lagos - **Nairobi** - Tshwane - Bogota - Guadalajara - Lima - Medellin - Mexico City - Jakarta - Kuala Lumpur - Quezon City

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For more information, contact osaracho@c40.org, and visit our webpage [here!](#)



Climate Action
Implementation

