

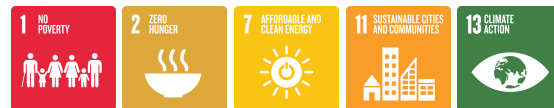


STAGE: IMPACT

📍 NAIROBI, KENYA

Taka Taka Zero is a community-led impact enterprise empowering young people in Mathare to use innovative technology to convert waste into energy.

“TOGETHER, WE ARE FUELLING SUSTAINABLE FUTURES”



The Problem

1. WASTE MANAGEMENT

In Nairobi, **3207 tonnes of waste** is generated everyday. The **cost of disposing** waste is more than what most earn in a day meaning it **collects in dumpsites** around the slum.

2. WASTE DISPOSAL

As **waste management** is an **unaffordable luxury**, youth groups try to clear landfill sites in the community, but with **infrastructure and support lacking**, waste ends up in rivers or is burned.

3. FOOD INSECURITY

With the **cost of living** and **unemployment** high, many of the community suffer from **food insecurity** as they struggle to afford or obtain **sufficient nutritious food**.



Above:
Children playing on a dumpsite.



Above:
Uncontrolled burning of waste.

FELIX OMONDI, TTZ NAIROBI TEAM LEAD

“Living in Mathare is one of the most difficult things as a youth. My community was very dirty. We need to overcome the challenge of the waste to help the community avoid diseases.”

Entrepreneurial Leadership

IDENTIFYING NEEDS

We identified **four** core needs of the community within Mathare.



Affordable **Waste Disposal**



Affordable **Food**



Education on proper Waste Management



Paid Employment



An **abundance of waste**, which can be converted to thermal energy.



A **pre-existing “Community Cooker”** with the potential to incinerate waste.



Unemployed youth passionate about transforming their community.

CAPITALISING ON OPPORTUNITIES

The community had everything it needed to address the problems and create meaningful, sustainable impact; but it lacked the crucial support and infrastructure to unlock its full potential.

Our Innovation Approach

We use a waste-to-energy technology, **the Community Cooker**, which incinerates no-value rubbish to generate thermal energy for cooking and heating water.

Before our repair, the **pre-existing cooker had been in disrepair since 2015**. Today, it stands as one of the few financially sustainable Community Cookers in Kenya.

- ✓ **85%** combustion efficiency.
- ✓ Pure CO₂ released - **80x better** than CH₄ released by waste.
- ✓ Features a closed incineration system separate from the cooking area, ensuring **zero risk of contamination**.



Stage 1:
Collect waste

Stage 2:
Incinerate waste in
Community Cooker

Stage 3:
Use the thermal energy
for cooking

Stage 4:
Sell the products
created when cooking

Business Model

Using the thermal energy produced by the Community Cooker, Taka Taka Zero were able to establish a **community-run bread-baking business**. We **employed 30 youths** on a competitive wage to produce high-quality and low-cost products to be sold to their community.

Our bread baking business allows us to provide affordable **high-quality nutritious food** for the community at a price that covers the majority of our operational costs. To diversify our income streams and to scale operations, we have **branded our bread and kiosks**, and **expanded our product range** to include Ujipower to better support the local community's needs!

SINCE OCTOBER 2022



Provided over 13,000 meals to the community and generated a revenue of over **388,000 KSH (\$3000)** for our employee salaries.



In August 2023, we were able to scale operations by **opening a new kiosk**.



Diversified our product range to include Ujipower, a Kenyan porridge, to provide choice, and attract additional customers.



Improved production capacity by 50% through increased efficiency and upskilling of our workers.



Sustainable Positive Impact



PEOPLE



PLANET



PROSPERITY

- ✓ Empowered **30 youths** with waste management training, communication & teamwork skills.
- ✓ Provided over **13,000 meals** to the community.
- ✓ Appointed a wellbeing officer to support the community in their time of need.
- ✓ We distributed **2,500 portions of Ujipower** to flood-affected residents and provided **rent assistance to 10** of our displaced workers.
- ✓ We replaced uniforms & school books for the 50 most flood-affected students at MCO school, allowing them to rejoin the school.

- ✓ Collaborated with the local government to develop flood mitigation policies.
- ✓ Collected **33 tonnes of waste** and saved the equivalent of 160 **tonnes of CO2**.
- ✓ Prevented **2.3 tonnes of methane** emissions and mitigated the risk of methane explosions.
- ✓ In response to the severe flooding in Nairobi, we are partnering with youth groups that clean drainage systems to reduce flood risk.

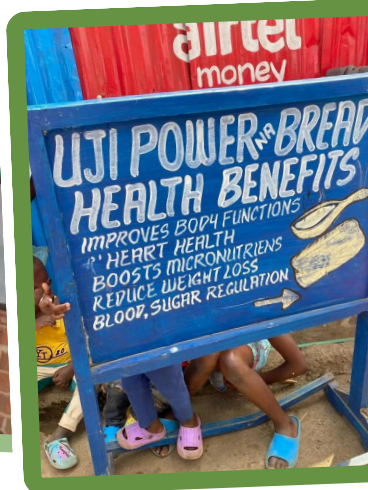
- ✓ Employed and upskilled **30 youths** with training from industry leaders.
- ✓ Opened a **new kiosk** away from the cooker to widen our customer base and presence.
- ✓ Educated over **300 school children** in Nairobi about waste management.
- ✓ Generated over 388,085 KSH which was directly reinvested into the community.



PEOPLE DIRECTLY IMPACTED: 430

Future Planning

- Replicate our successful model in other low-income communities within Kenya and beyond to help address youth unemployment and the abundance of waste.
- Initiating collaboration with NGOs in other Kenyan regions and are actively pursuing diversification and growth through additional project sites.
- Use our investment to identify and build or repair 5 new cookers by 2028 with the first expansion planned to be in Kwale County.



KENNEDY GWA, MCO HEADMASTER

“TTZ is one of the **best projects** that has ever happened to the **community** in regards to waste management.”