

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

“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**.

“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.”

Felix, Youth Group Leader



Above: Child playing on a dumpsite



Above: Uncontrolled burning of waste

## Entrepreneurial Leadership

### IDENTIFYING NEEDS

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



Affordable Waste Disposal



Paid Employment



Affordable Food



Education on proper Waste Management



Abundance of waste which can be converted into thermal energy.



A pre-existing 'Community Cooker' with the potential to incinerate waste



A number of unemployed youth passionate about transforming their community.

### CAPITALISING ON OPPORTUNITIES

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

# Our Innovative Approach

TakaTaka Zero is a scalable **waste management solution** that **tackles poor waste management, youth unemployment, and food insecurity**. We empower young people to drive behavioural change within their own communities whilst also tackling some of their most pressing needs.

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



**85%** combustion efficiency.



**Pure CO2 released - 80x better than CH4 released by waste.**



Using the thermal energy produced by the community cooker, we established a **community-run bread-baking business**.

We **employed 30 youths** on a competitive wage to produce a high-quality and low-priced product to be sold to their community.

## Business Model

Our simple bread-making business model allows us to provide affordable high-quality nutritious food for the community at a price, that by Jan 2024, will cover all operational costs.



**Diversified** our product range to provide **choice**, and attract **additional customers**.



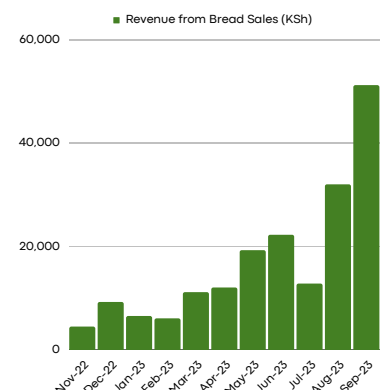
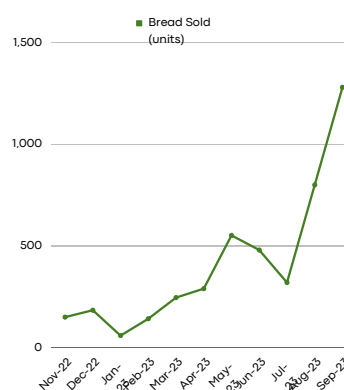
Increased **production capacity by 50%** through increased efficiency.



Implemented **Word of Mouth** marketing strategies increasing sales by **753%**.



Developed an **employee retention** and engagement strategy which led to an increase in **wages by 50%**.



To scale, we diversified our revenue stream and have increased our total revenue this year by **€38,200**

# Sustainable Positive Impact

between August 2022 and September 2023



## PEOPLE

- ✓ **EMPOWERED 30** youths with basic waste management training, communication and teamwork skills.
- ✓ **PROVIDED** over **3223** loaves of bread to the community.
- ✓ **EDUCATED 315** school children about waste management.



## PLANET

- ✓ **CLEANED** the local community by collecting waste from **200 families** and **4 institutions**.
- ✓ **COLLECTED 30 TONNES** of waste = **SAVED 97 TONNES** of CO2.
- ✓ **PREVENTED 1.5 TONNES** of methane **EMISSIONS** mitigating the risk of methane explosions.



## PROSPERITY

- ✓ **EMPLOYED 30** youths and further **UPSKILLED 12** individuals with dedicated roles.
- ✓ **INCREASED** employees wages by **50%** in line with cost of living.
- ✓ **INCREASED** bread sales by **433%** since Nov. 2022.
- ✓ **INCREASED** revenue by **620%** since Nov. 2022.
- ✓ **INTRODUCING 2x NEW** products by JAN 2024.
- ✓ **5 NEW** Bread Baking Businesses to be **SET UP** by 2028.

**PEOPLE DIRECTLY IMPACTED:**  
2000 individuals in the community.

**PEOPLE INDIRECTLY IMPACTED:**  
6000 individuals in the community.

## Future Planning



### FUEL TRANSITION AT SCHOOL

Utilise the cooker to **cater for Mathare School** and reduce reliance on **environmentally damaging firewood** and provide a significant **cost saving** to the school.



### EXPAND OUR WASTE COLLECTION

Work with new youth groups to **collect from a larger radius** and empower them to **utilise a similar model** to create impact.



## Future Location: Kibera

We have obtained a **€34,000 seed investment** from the Ford Family Foundation. We will replicate our model by repairing **5 new cookers** by 2028 which will **directly impact 10,000 individuals** and save **2880 tonnes CO2**.

**Kennedy Gwa,**  
MCO Headmaster

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