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UMANDE TRUST



Impact Report

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A WORD FROM BENAZIR

In the face of inequality and marginalization in the informal settlements in Kenya, Umande Trust dared to dream and act in order to transform the lives of urban communities. Through strategic partnerships, Umande Trust has been able to reinvent the public toilet with an aim of closing the sanitation loop, and has used it as an advocacy tool to address issues of women empowerment, youth empowerment, climate change, fecal sludge management and social enterprises within the communities.

As the innovation continues to blossom and gain traction outside the informal settlements, we envision that qualities of life of beneficiaries will continue being changed through inclusion, coordination, competent actions and partnerships.



Benazir Omotto
MANAGING TRUSTEE

ABOUT UMANDE TRUST

Our mission

Umande Trust was founded to promote eco-innovations that place community groups at the driving seat of enterprising solutions.

We believe in the power of community inclusion at each stage of the process, to achieve sustainability for our projects.

Our approach

We build and upgrade bio-centres, where people access clean drinking water, public toilets, and biogas for cooking, generated from the facilities. Moreover, we participate in advocacy, education, environmental protection and gender equality projects.

5 targets

Clean water and energy, improved sanitation, environmental protection, community development.



BIO CENTRES

What are bio centres?

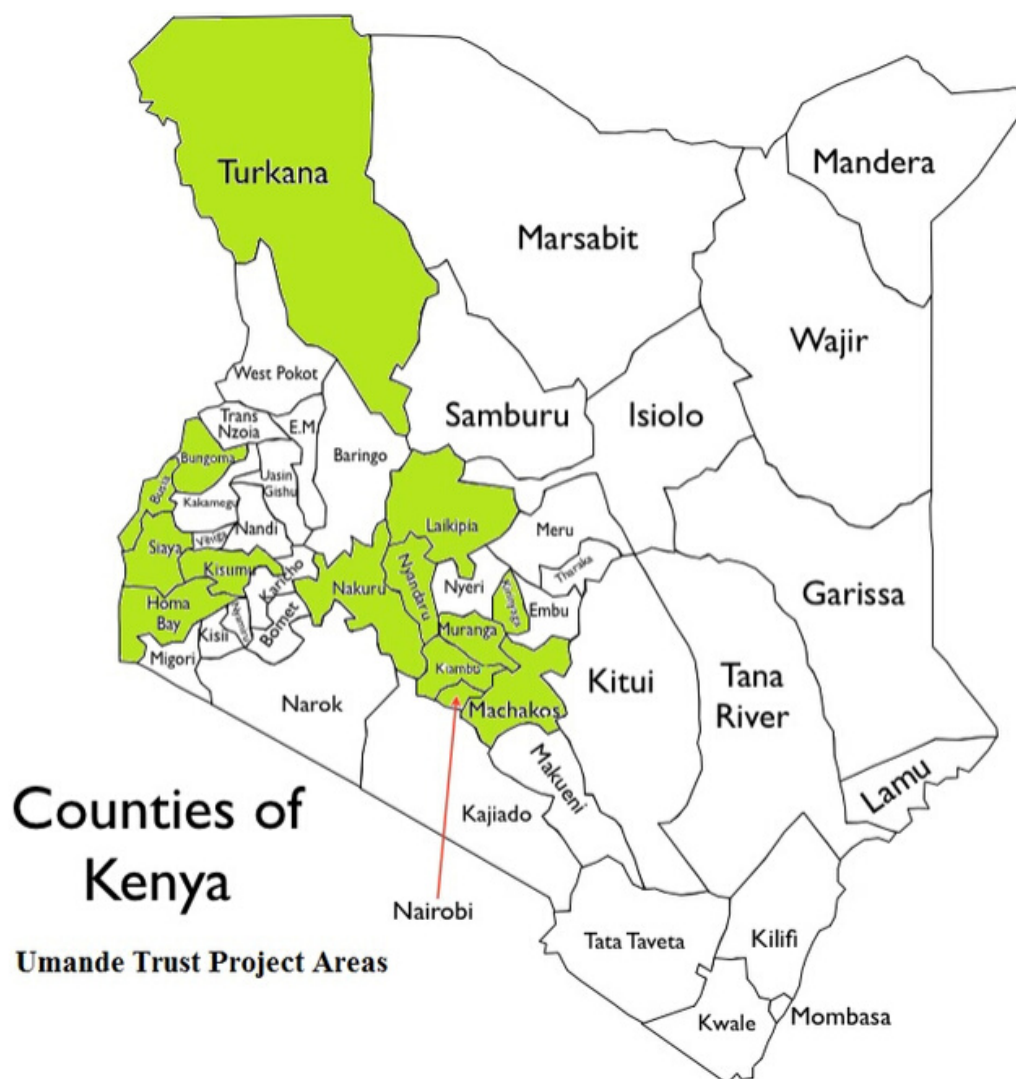
Bio centres are sanitary blocks that use a biodigester system to treat waste and produce biogas to be used by the community. Local community-based groups build and manage these centres with the support of Umande Trust. However, these bio centres are more than just ablution blocks, a different sections are used to serve various functions such as office space, schools, residential units and even halls for hire.

What is their impact?

Each bio centre has a different impact on their community, but all contribute to improve Water, Sanitation and Hygiene. They have helped to eradicate the practice of "flying toilets" and reduce the amount of open defecation. Disease outbreaks decreased, and individuals now have greater access to clean water and bathrooms. Additionally, the project helps to promote renewable energy, in the form of biogas creation, as a clean and cheap alternative to wood, charcoal, or kerosene. Finally, employment is created throughout the entire process, from construction to management, helping with capacity building and developing the community.



WHERE WE OPERATE



Distribution

We are active in numerous cities and counties across Kenya, with headquarters in Kibera, Nairobi and and a satellite office in Kisumu. Our organisation started small in Kibera, and with the success of the first bio centres in 2007-2008, we expanded first in other informal settlements in Nairobi, such as Mukuru and Kibagare, then to other counties in Kenya, such as Kisumu, Nakuru and Turkana, and finally we broadened the scope of our projects, including the upgrading of latrines in schools and churches.

SANITATION

Urban sanitation issues

In Kenya, 71% of the population has no access to sanitation services¹. This causes open defecation, environmental degradation, frequent water scarcity, unhygienic practises, lack of sanitary facilities and inadequate mechanisms for managing waste water. As the population increases, more pressure is put on existing services, such as pit latrines and "flying toilets", resulting in overcrowded, poorly maintained structures. The situation is exacerbated by marginalisation of basic services in county government plans, negative social attitudes, and lack of transparency and accountability in community groups.



Bio centres

Our contribution to the sanitation challenge in Kenya consists of installing bio centres throughout informal settlements. These comprise durable public bathrooms and showers on the ground floor, available at an affordable fee. Due to their simple latrine structure and to the constant presence of a caretaker, these are easy to maintain and they provide a comfortable, hygienic, more private, and reliable service. Moreover, due to the rising number of bio centres, we are able to make these services increasingly available to every plot in informal settlements, reaching more people.

CLEAN WATER

The Kenyan water crisis

33% of the Kenyan population has limited or no access to clean drinking water¹, due to the lack of an extensive and efficient water delivery infrastructure. This forces communities to depend on potentially contaminated, unreliable and hard to reach water sources. This can cause lack of hygiene and health issues, such as cholera, dysentery, and typhoid, which are especially dangerous for children, and additionally worsen the effect of poverty traps.



Tackling water scarcity

Our projects include water selling points, where community members can buy clean water, safe for drinking, cooking, showering and cleaning. We store water in capacious tanks, regularly refilled by the respective county administrations for each of our operating areas. Nevertheless, high demand due to water scarcity and drought periods, our facilities can face insufficiency of resources, forcing people to collect water from illegal cartels or from more expensive resellers. Our commitment for the future is to secure water provision, whatever the demand or the weather conditions, exploring the potential of rain water harvesting.

CLEAN ENERGY

The unexplored costs of cooking

90% of the Kenyan population relies on charcoal and firewood for cooking and heating². However, these methods have significant health consequences, such as respiratory diseases, infections and the risk of getting burned, and also negative repercussions on the local and global environment, as they contribute to deforestation and the greenhouse effect. In addition to this, both firewood and charcoal are expensive and fluctuating in price, especially for communities in the informal settlements, taking up to 10% of the yearly income of a household².



The value of biogas

Our bio centres are innovative solutions, as they are designed to include a bio-digester, producing biogas out of the human waste collected from the facility. Biogas is then available inside or outside of the facility, depending on its design. Neighbours can use it to cook their meals or heat up water for a small fee, more affordable than existing energy sources. This generates less demand for wood and charcoal, contributing to protect our environment from deforestation and carbon dioxide pollution, and decreasing health hazards. Nevertheless, there are challenges to the use of biogas in our facilities: most people prefer to avoid cooking in public, and consider cooking inside a sanitation facility somewhat unhygienic. Our goal for the future is to make biogas more accessible to residents for use in their homes, and to redesign the communal cooking point.

COMMUNITY DEVELOPMENT

Disconnected communities

Communities in informal settlements lacked recognition from government authorities for decades. This factor, together with poor living conditions, determined the development of a sense of individualism and survival mindset that led communities to disgregate, causing increases in violence and criminality. Since then, also thanks to international and community-led advocacy and the work of civil society organisations, government reach has improved, and informal settlements feature numerous state funded projects, aimed at the implementation of infrastructure.



Bio centres as social centres

Besides providing sanitation facilities, the bio centres also function as social, democracy, and peace centres. They include an additional floor, which can host a variety of activities, such as Sunday services, movie screenings, group meetings, watching sport matches, education, art, dancing, and community empowerment gatherings. This enables the community to meet new people and build a network. Since we strongly trust in community-led development and inclusion, the bio centres are transferred to the community after it is constructed, which is then fully managed by them.

ENVIRONMENTAL PROTECTION

A rising global threat

The rising threat of climate change has a significantly larger effect on the urban and rural poor in developing countries, such as Kenya. Inconsistency in rains causes water and food insecurity, flooding, increasing incidence of temperature-related diseases. In addition to this, deforestation and water and soil pollution have disruptive effects globally, soil erosion, greenhouse gas emission, biodiversity losses, hampering of the water cycle and health problems.



Our response

Our projects foster resilience among Kenyan communities, through consistent water and clean energy supply and various climate change advocacy programs. We introduced an innovative human waste management system, which encourages communities to participate and embrace a closed energy cycle, through the use of biogas. This promotes a more sustainable way of organising communities: water and soil contamination are limited, due to the use of bio-digesters, and the demand for wood is decreased through the introduction of biogas, an affordable alternative to existing practices, such as the use of charcoal, kerosene and wood. The sum of these activities contributes to the global fight against climate change, the improvement of the local surroundings and finally connects humans to their own environment.

Sanitation

Number of bio centres: 86
Average daily visitors: 345
Average daily income: 1.330 \$
Cleaning frequency: 3,8 times a day
Alternative sanitation arrangements: pit latrines, flying toilets

Community development

Estimate of people reached by UT enhanced services: 35.000
Average monthly income generated by first floor activities: 68\$
Average hired caretakers: 2
Average caretaker salary: 60\$
Frequency of respondents reporting increased unity in the area of bio centre contraction: 100%

Clean energy

Bio centres using biogas: 46 %
Mean daily biogas direct users: 61
Alternative energy sources: charcoal, firewood, kerosene.



Clean water

Mean daily water buyers: 60
Average cost per 20L: 5 KSH
Alternative water collection practices: illegal water cartels, County Government tanks, more expensive private resellers (20 KSH x 20L)

Environmental protection

Mean distance of water courses from biocentres: 945 m
Frequency of respondents reporting awareness on climate change: 60%³

IMPACT SUMMARY 2007 - 2019

86

Bio centres built and upgraded in Kenya since 2007

1.330\$

Money raised daily by bio centres, which is then re-invested or divided throughout community group members.

35.000

People reached by Umande Trust's improved services since the establishment of each bio centre.

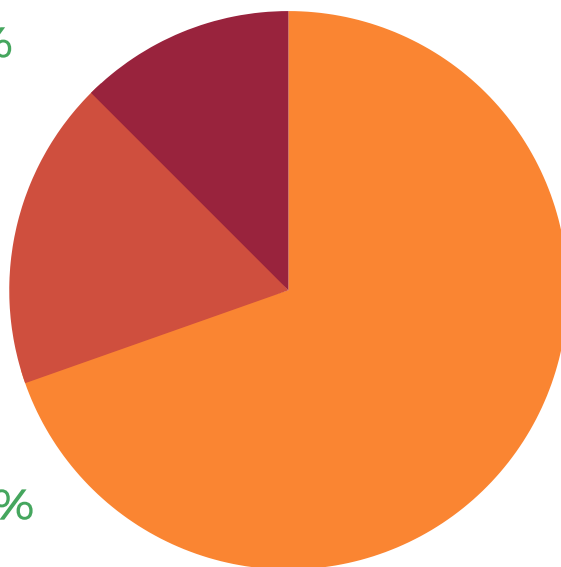
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Ongoing bio centre projects

Biogas users 12.5%

Water buyers 17.9%

Sanitation users 69.6%

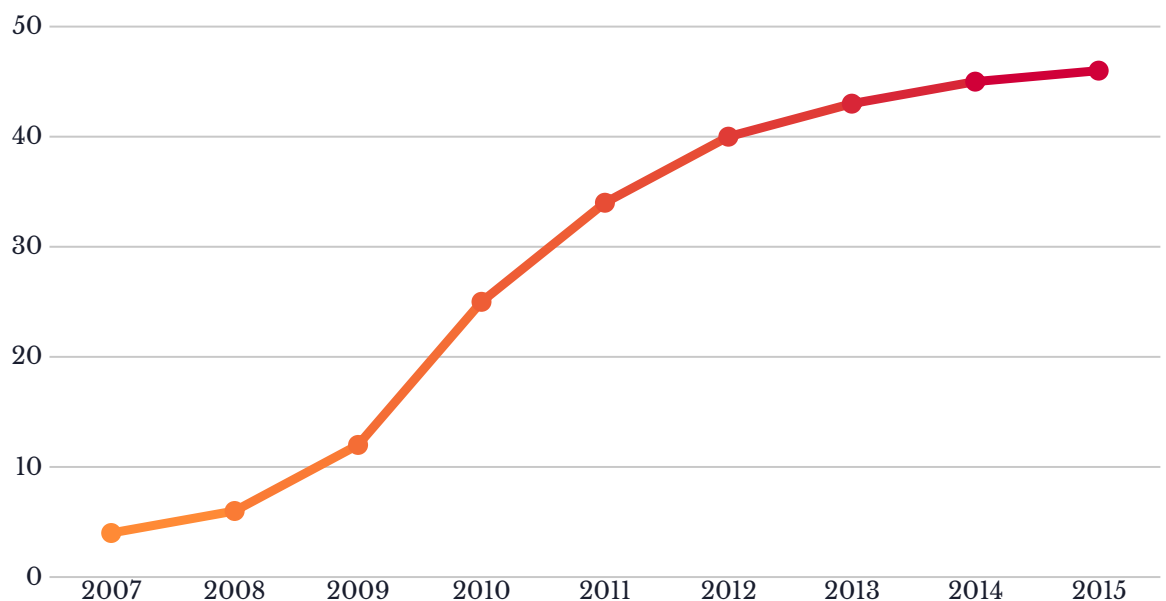




EXPANSION

Growing projects

We built our first bio centres in 2007 in Kibera, Nairobi, and, since then, our activity has expanded in the territory and in the nature of projects. We started collaborating with schools and churches inside and outside of the informal settlements, reaching more than 80 projects around the whole Kenya.



Expansion of bio centres in Nairobi, 2007-2015

SCHOOL PROJECTS

EDUCATIONAL SANITATION

Umande Trust collaborates with school staff to realise projects, which include the upgrading of toilets and hand washing facilities. In addition to this, students are trained in handwashing and how to make use of the toilets. Schools implement eco-innovations by introducing the use of biogas digesters to not only provide the school with biogas to supplement the use of firewood, but also to convert waste into slurry that will be used as fertilizer. The biogas project has enabled the school to use less firewood for cooking, which helps the environment and decreases smoke inhalation for the staff as well. The projects represent improvements compared to previous unsanitary and overcrowded facilities, and students reported increased cleanliness and hygiene awareness. At present, we have completed four projects in Nairobi only, and we plan to continue and expand with educational activities and upgrading services.



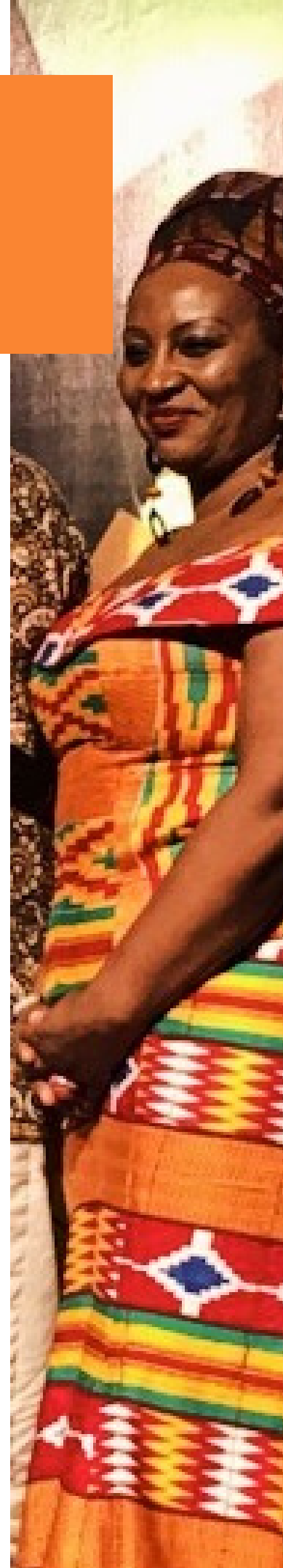
INCLUSION PROJECTS

GENDER EQUALITY

There is a gap in gender representation among the people of Kibera as women's voices are not often heard on issues involving their community and society. The Women's Voices project – ICT Choices, started in 2016, seeks to capture women's views and ideas about county development, and make sure, these ideas are shared with the relevant authorities. It looks to address four main themes of governance, transparency, accountability, and anti-corruption.

MAKE ALL VOICES COUNT

Making All Voices Count is a global initiative that supports innovation, scaling, with the goal of promoting transparency, fighting corruption, empowering marginalised citizens, and harnessing the power of new technologies to make government more effective and accountable. Making All Voices Count acknowledges that important new opportunities are emerging to use mobile and internet technologies to close the gap between citizens and governments: through wider information availability, more opportunities to express citizen demands, and new ways to enable citizens to work together and with government.



OTHER PROJECTS

CLIMATE ACTION

The project seeks to promote behavioural change on a community, County, national and international government level. We work to implement international and national frameworks, that relate to poverty, livelihoods, greenhouse gas emissions, food security and use of natural resources. We target youth- and women-led interventions through training and partnership for an improved understanding the interactions between policy and climate. This will result in communities living in a cleaner, healthier and more sustainable environment, but also in the mitigation of the effects of climate change.

SOCIAL ENTERPRISE

In order for our activities to be more sustainable on the long term, the Social Enterprise Programme (SEP) seeks to respond to sanitation challenges using commercial strategies. Umande Trust has started with the implementation of projects for the commercial production of containerised bio-gas, and the production of briquettes, in order to close the sanitation chain and provide essential products that contribute to the protection of the environment.



Joseph

I was born in Busia county, and I moved to Kibera in 1986 for work. I work in a financial department in Kibera, and as administrative assistant at Umande Trust. I like to work for Umande because it enhanced the livelihood of many people, especially in Kibera, and also mine, as now I am able to provide for my family and for the education of my five daughters. Umande Trust united and empowered my family and the whole community to improve their own lives!



UMANDE STORIES

Winnie

I was born in Kibera, and I started working as a caretaker in the TOSHA 1 bio-centre in 2011. Before that, I used to wash clothes. I liked my job, but I didn't earn a lot of money with it. Now I am able to earn more money, I was able to open a bank account, I can pay my rent regularly, my son's school fees and buy food, while before I struggled to afford these necessities. I still face some challenges, as I only have Sundays off, and little time to do groceries and go to church, but my life has still improved. I also noticed that since the establishment of the bio-centre in 2007, the environment in Kibera is cleaner, less people use flying toilets, and livelihoods improved.



LOOKING FORWARD

Action Plan

Our plan for the future, to continue making an impact by empowering communities to organise in order to fulfil their fundamental rights and needs, will follow these seven guidelines.

1. Consolidation and realignment of successful innovations for greater impact.
2. Maximisation of opportunities of devolution and the to expand presence and create new partnerships.
3. Extension of urban innovations into rural areas and scaling up internationally.
4. Research, development, production and marketing of innovative, eco-friendly products and models.
5. Commercialization through social enterprise to reach sustainability and increased financial inclusion.
6. Diversification and strengthening of partnerships.
7. Enhancement of the informed participation of communities in policy dialogues towards the provision of basic services.





NOTES

¹ WHO, & UNICEF. (2019, June). Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. Retrieved from

<https://washdata.org/data/household#!/ken>

² Yonemitsu, Aya, et al. "Household Fuel Consumption Based on Multiple Fuel Use Strategies: A Case Study in Kibera Slums." APCBEE Procedia, vol. 10, 2014, pp. 331–340., doi:10.1016/j.apcbee.2014.10.062.

³ Data and estimates drawn from a survey conducted in December 2019 by a team of three interns, on a sample of 13 bio centres located in Kibera, Kibagare, and Mukuru.



UMANDE TRUST
"Innovative solutions, sustainable communities"