

# *Transformation*

The Bio Centre Story

Umande Trust  
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# Executive Summary

## Expanding Opportunities in People's Settlements through Innovative Solutions in Sanitation Provision

Inadequate sanitation according to recent research<sup>1</sup> is a driver of diseases such as diarrhoea, endemic cholera and respiratory infections seen as the biggest contributor of child mortality for the under five, where an estimated 2.4 million children fall victim. It is without doubt that sanitation is the single most cost-effective major public health intervention to reduce child mortality. The United Nations<sup>2</sup> observed that in developing countries and indeed informal settlements, there is no single development intervention that brings greater public health returns. Additionally, for every \$1 invested in sanitation, it is estimated that at least \$9 is returned to national economies in increased productivity and a reduced burden of healthcare.

The interventions supported by Umande Trust to provide better sanitation in people settlements across Kenya are aimed at bridging sanitation gaps in addition to providing sustainable livelihoods and living environments. This publication provides a detailed description and photographic evidence of the current situation of the Bio-Centres constructed across the country in people's settlement through assistance of partners and beneficiary communities. The publication further highlights the unique and salient features of each facility and how beneficiary communities have transformed as a result.

Information and detailed about the facilities was collected through the help of groups of men and women including the youth who managed the facilities. Observations and photography were carried for each facility and details collaborated by user communities and management committees. Without the local knowledge and lived experience, this publication and contents would not have been possible. The voices and personal experiences

presented in the publication are testimony that the Bio-Centre facilities had indeed led to transformation of the communities and users.

The findings led to a transformed socio-economic and environmental landscape in the settlements. Many of the beneficiary groups continued to earn dividends and monetary gains as a result of offering the service. Youth led groups realized significant results for example where members were previously unemployed. Instances were recorded where some youth members were able to support children in the settlements with education and other basic necessities such as food and clothing. A beacon of light where there was none before. Many households lack access to education materials and space for reading especially for school going children owing to small cramped living spaces. Some Bio-centres offer the space and material necessary to mold the future generation. Access to adequate and clean sanitation is dignifying. Before the Bio-centres were constructed, many households in the

1 World Bank (2006) Disease control priorities in developing countries (Second edition)

2 UNDP (2006) Economic and health effects of increasing coverage of low cost sanitation interventions, Human Development Report Office occasional paper

settlements opted for open defecation and other expensive modes of waste disposal. The Bio-centres offer clean and adequate facilities which are a pride of the user communities. Surrounding environments have changed as a result of better disposal methods available to the residents in the settlements. The most innovative outcome has been the generation of gas which is a by-product of the waste breakdown process. This renewable energy source has been used to power many commercial and household activities ranging from hotels to warming water for the shower facilities located within the facilities.

The findings point to a bright future and the need to explore other potential beneficiaries such as schools and settlements in Kenya and the region. Umande Trust believes this innovative yet accessible approach to sanitation provision is a right to all who deserve access to basic facilities and services. However, challenges are abound in aspects of resource availability, cultural barriers and limited knowledge dissemination which in essence this publication aims to provide. There is unmet potential and a needy household somewhere across many of the settlements. Our efforts as partners and communities will be important to leverage and achieve the desired results in the long run.



# Partner Testimonial

In a joint partnership with Umande Trust, SustainableEnergy Denmark implemented the project 'Under the Same Sky' in Kibera. The project financed two of the Bio centers constructed by Umande Trust. One at Mashimoni Primary & Secondary School and the other at Sct. Christines Primary School in Raila Village.

Not only do these Bio centers provides basic services such as water, toilets, cold and hot showers and income generating possibilities as seen in most of all other Bio centers but they do also offer access to the internet and through community courses provides various empowerment services like training in environmental issues, micro-credit, social audits and others.

But most important is the use of the Bio centers as centers for Dialogue in the communities. With the ongoing challenges the communities in the slums are facing it is important to have places where people can meet and discuss current issues. The Dialogue centers are being used as community halls and thereby play a significant role in development of the communities and the ongoing and most needed dialogue between the different inhabitants. It was last seen up to the General Election in 2013 with the Peace and Reconciliation meetings held here.

Vedvarende Energi/Organisation for Sustainable Energy



“Nobody can go back and Start a  
New Beginning, But  
Anyone can Start Today and Make a  
New Ending”

- Maria Robinson



Photo: N.Omar



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## About Umande Trust

UMANDE TRUST is a right based agency with a mission to promote innovations that position bio-sanitation and other related basic services as key drivers of sustainable urban development.

UMANDE TRUST believes that modest resources can significantly improve access to water and sanitation services if financial resources are strategically invested in support of community-led plans and actions.

Prof. Saad Yahya and the founding trustees settled on the name and brand 'Umande', a Kiswahili term for dew- connoting a new, unbiased, nascent beginning; not recycling the ideas, over-powering the growing disillusionment with business-as-usual approaches to development. UMANDE TRUST was to experiment, dream, and adapt innovative processes and methods; learning from, sharing and transforming urban communities.

The organization registered as a trust in August 2004 and has since then managed to grow rapidly due to its credibility with community groups and the immense spirit of voluntarism and energy exhibited by its core team of staff members. An extensive network with groups and associations within informal settlements in Nairobi, Nakuru and Kisumu has been established.

UMANDE TRUST places emphasis on a multi-level approach that focuses on a product (access to urban water, bio-sanitation and solid waste management services) and a raft of community-led processes (partnerships for change, integrated urban environmental planning, sanitation governance, human rights and urban services financing).



UMANDE TRUST brings together teams of resource persons who share a passion and commitment to learn from, share and achieve lasting change with people. The team comprises of community organizers, geo-informatics specialists, urban planners, human right activists, civil engineers, social scientists, environmental, gender, youth and enterprise development resource personnel. All of who have several years of experience .

Since 2004, UMANDE TRUST has facilitated the community organizing for independent action but also to demand fairness, accountability and competent services.

## OBJECTIVES

- i. To support in the capacity building of community organizations and/or federations in order to enable them to effectively manage and sustain water and sanitation resources and services;
- ii. To facilitate the planning, building, and maintenance of community-based water and environmental sanitation services;
- iii. To promote the introduction, adaptation, development and application of best practices for improved delivery of water and sanitation services;
- iv. To conduct action-based research and policy advocacy programmes on key issues related to water, sanitation and the environment;
- iv. To promote the adoption of information and communication resources and technologies in order to support local communities in pursuit of the above objectives.

## VISION

A society in which communities have, as a basic human right, access to safe, adequate and affordable urban services.

## MISSION

To promote innovations that position bio-sanitation and other related basic services as key drivers of sustainable urban development.

## CORE VALUES

Dignity and justice  
Transparency and accountability,  
Participation and inclusion,  
and Mutual respect for partners

## CAPABILITY STATEMENT

Improving access of the under-served to safe, adequate and affordable water, bio-sanitation and waste management services.



# About Bio Centres

Informal settlements in Kenya were neglected blotches within cities and towns. Residents had no access to clean water and toilets. The lack of proper sanitation areas made individuals opt to use buckets or plastic bags so as to have the simple privacy or due to the greater problem that is insecurity.

Flying toilets and open defecation were the order of the day, a hygiene disaster that led to numerous disease outbreaks such as cholera, dysentery, diarrhoea etc.

Numerous measures have been taken up to help solve the issues related to water and sanitation; such as communal pit



latrines, portable toilets, plastic bags laced with treating chemicals etc. The bio centre project falls in the same category but with a twist that is, it is an ablution block that produces green energy from the waste and a multifunctional area serving numerous purposes; creating a place from a space.

Bio Centres are sanitary blocks that use a bio digester system to treat waste and produce bio gas to be used by the community. Self-help groups, vetted by Umande Trust, are supported and facilitated, to construct and manage these centres. The bio centres are more than just ablution blocks, sections of it and the top floors are partitioned to serve various functions such as office space, schools, residential units, halls for hire etc.

The centres are set to have a 60m range. They have helped eradicate flying toilets and reduce cases of open defecation. Disease outbreaks have reduced and individuals now have access to clean water. Some groups have facilitated activities that further help conserve the environment such as tree planting, community clean ups etc.

The project promotes renewable energy helping the shift from the usual wood, charcoal, kerosene and gas to biogas for cooking. This helps in improving energy efficiency, reducing carbon dioxide emissions and alleviating pressure on forests. It is also cheaper and relatively affordable.

Bio centres have helped facilitate community education and sensitization on conservation and hygiene. Simple practices such as washing one's hands after visiting the washrooms helps in reducing disease outbreaks within the involved community.

Women and the youth have gotten a chance to play a role in the community through the bio centre projects by being involved, or initiating their own projects through the self help groups within the settlements

The jobs created and the skills transferred ensure that some members of local communities have a means of earning a living. Employment is created throughout the entire process, from construction to management of the bio centres. From the project's capacity development strategy,



over 200 members have developed skills in accountability sessions, promoting hygiene, leadership, procurement and tendering procedures, record keeping, financial management and reporting.

The lack of land tenure in informal settlements made it difficult for individuals to take up loans as that is what is mostly used as security in financial institutions. The bio centres now act as security for those seeking loans.

Umande Trust and the communities have also formed a Sanitation Development Fund (SANDEF), a self-sustaining fund which loans out, rather than give grants, the funds needed to undertake a sanitation project. Government and Non-governmental Organizations (NGOs) can make a donation to SANDEF. It is after a project is completed that the loan will be repaid to SANDEF and those funds can be loaned out again for another project hence multiplies the impact of donations. Communities that have benefited from bio-centers contribute 10% of the net income into the kitty.

Bio centres are not only initiated in informal settlements but also in community facilities such as schools and churches with a need for sustainable sanitation systems. School administrations, church communities and County leaders are providing sanitation facilities in their respective areas of interest; making it easy and quick to reach a large number of people in the communities.

More bio centres are yet to be built so as to ensure that all areas with inadequate water and sanitation are well serviced. Some of the centres are more successful than others, therefore there is still room for improvement and with that there is hope that the country will be one step closer to improving the standards of living in the country.





# Brown to Green Agenda

With climate change and global warming, the world is struggling to move from brown agendas to green ones. The bio centres are part of this great march.

What we know as human waste is what bio centres see as resourceful material. Each of the three states of matter are rendered useful: gas for the production of

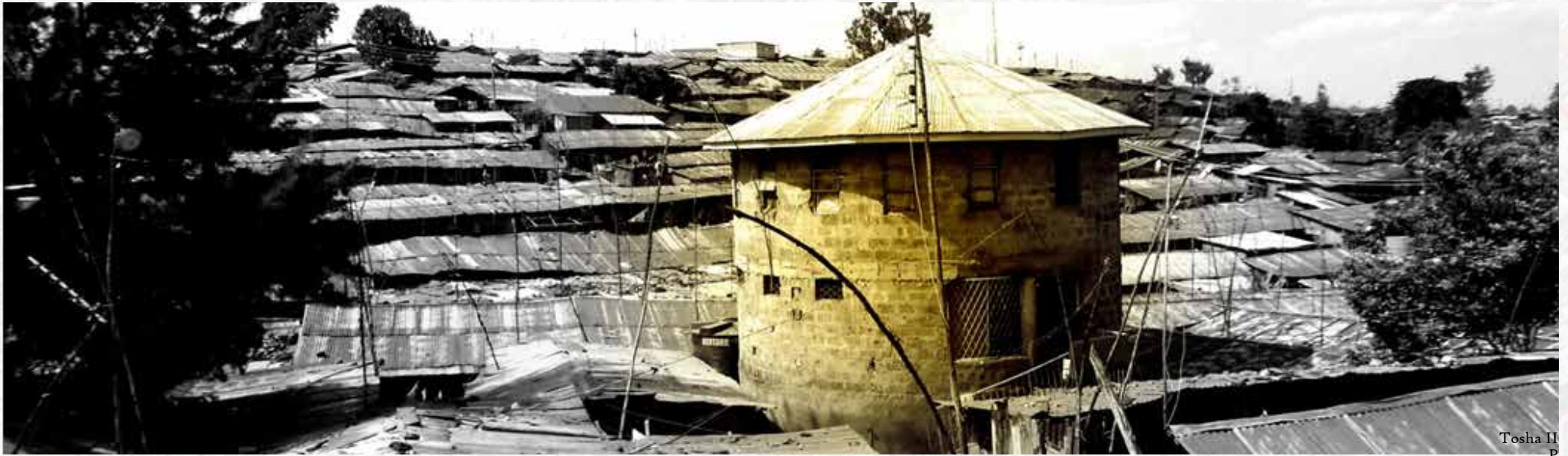
energy, liquid i.e. the treated water can be recycled and the treated solid waste used as fertilizer.

There are very few green pockets in Kibera and Nairobi in general thus most of the groups are committed to conserving the environment. They have plans of creating a new culture of planting trees in the community through educating school

children and groups on the importance of tree planting.

In Mashimoni, the group has a seedlings bed. Their main objective is to plant the trees in the area. The bio centre within Mashimoni Primary School has also helped to enlighten the school children through the agriculture club on ways of improving farming and planting trees.





# Kibera





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APOLIS LEPIARD IN JULY 1924

MBERA

# MEKERA TOSHA BIO-CENTRE

**KIMMTA CENTRE**  
Education & Health Promotion  
COUNSELLING & SUPPORT  
LIFE SKILLS TRAINING  
RADIO AIDED COMMUNITY  
EXTENSION & OUTREACH  
WATER & SANITATION  
WATER & SANITATION  
WATER & SANITATION

MUMI COFOFANI  
MAMA OKINDA  
MAPAMBANO  
JASHO LETU  
BIDII YETU



## PARTNER AGENCIES



Sidd

KIMMTA  
WORLD CUP  
KENYA  
4:00pm  
NIGERIA



# Tosha I

The First One



This was the first in many things, the first Bio centre in Kibera and in the country. The first bio centre to apply a digital card system for its users in order to counteract insecurity and reduce the hustle of counting money at the end of each day.

Group: Jasho Letu, Mapambano, Bidii Yetu, Mama Okinda, Multi Vision  
Year: 2007

Location: Katwekera Sarang'ombe  
Partner Agencies: Halcrow Foundation, Athi Water Services Board, Nairobi Water and Sewerage Company and SIDA

Land Acquisition: Community Land  
No. of Floors: II

Activities: Toilets, Bathrooms, Hall for hire, Library, Office space, Cyber Cafe, Kitchen (Biogas is used to cook for a nearby primary school) and Water vending

Daily Users: 600-1,000

Monthly Earnings: Ksh 82,000-84,000

Operating hours: 6am-10pm



# Nyaharwa

As Stitch in Time



Group: Nyaharwa Self-help Group

Year: 2007

Location: Soweto West

Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company and Athi Water Services Board

Land Acquisition: Purchased

No of floors: 1

Activities: Toilets, Bathrooms, Hall for hire, Housing for the caretaker and a Kitchen

Daily Users: 50

Monthly Earnings: Ksh 14,800-18,400

Operating hours: 6am-9pm

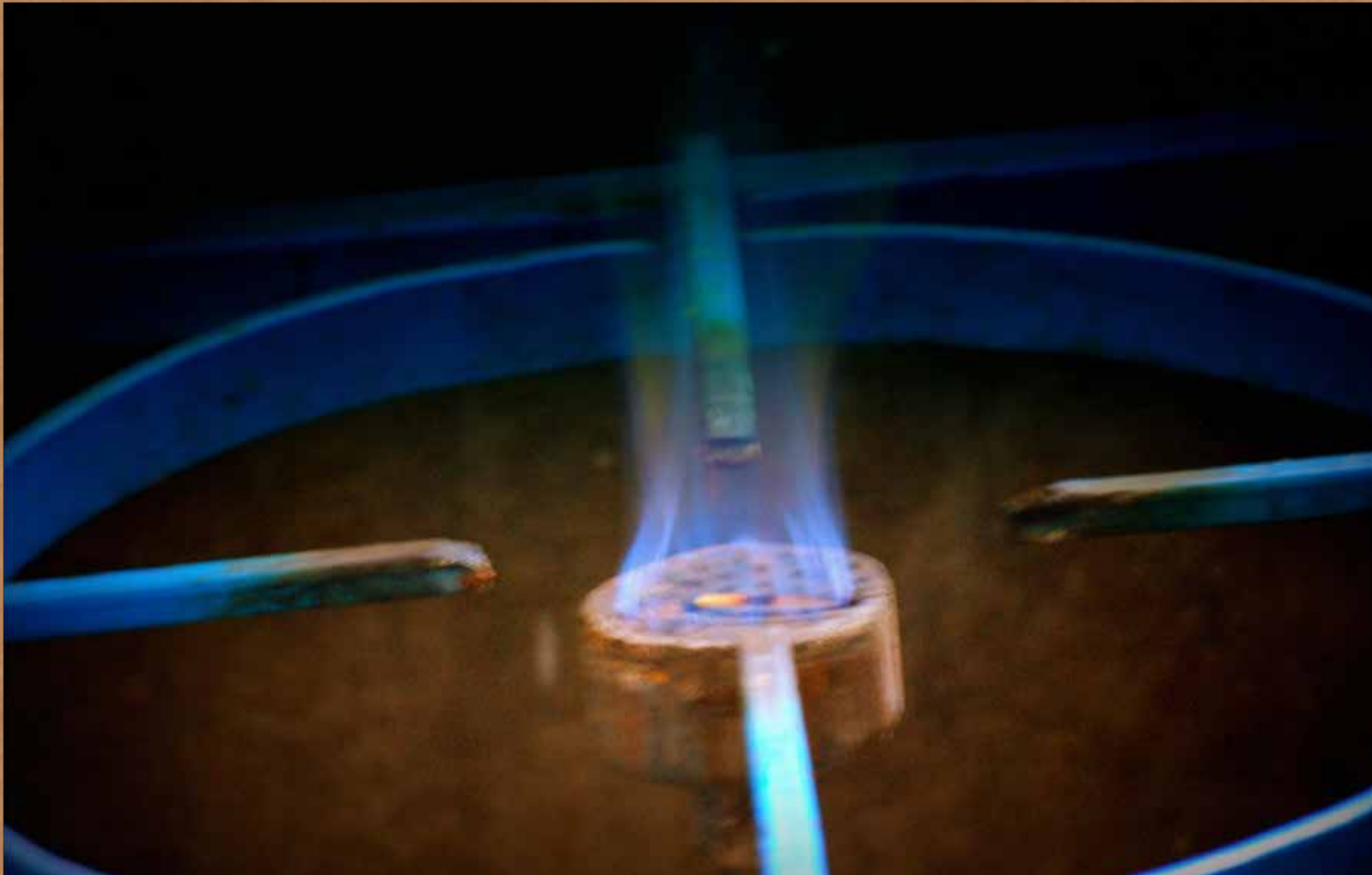


Owino 42, has his little one man factory within Nyaharwa's hall. Earning his living by making leather shoes from scratch



# Tosha II

Power of a Woman



Year: 2009

Location: Katwekera East

PartnersAgencies: Swedish

Embassy:

Activities: Toilet, Bathroom,  
Housing rental units

Land Acquisition: Purchased

No of floors: 1

Daily Users: 30

Monthly Earnings: Ksh 9,600

Operating hours: 6am-9pm

Tosha II is solely owned by women. The first floor provides housing for five households with the added advantage of cooking using biogas at the low cost of 10 shillings per meal. The biogas is also used to warm bathing water.



# Muvi Gorofani

Tosha I's First Daughter



Group: Multi Vision Self Help Group

Year: 2009

Location: Katwekera Sarang'ombe

Partner Agencies: Nairobi Water  
and Sewerage Company, Water and  
Sanitation for the Urban Poor

No of Floors: 1

Activities: Toilets, Bathrooms, Football  
match screening, Hall for hire, Kitchen

Daily Users: 150-300

Monthly Earnings: Ksh 11,600-12,000

Operating hours: 6am-10pm



Tosha I's first daughter situated relatively  
close to the Mother Centre.



# Jasho Letu

Fishing for Opportunity



The centre plans to be the first to recycle waste water for fish farming. The pond is to be located at the rear section of the bio centre

Jasho Letu has a huge clientele base as it also serves a nearby health centre. The group also created an area plan showing the need for a housing project, which was later implemented

Group: Jasho Yetu

Year: 2009

Location: Katwekera Sarang'ombe

Partner Agencies: Bill and Melinda

Gates, Foundation, Water and

Sanitation for the Urban Poor,

Nairobi Water and Sewerage

Company, Athi Water Services

Board

Land Acquisition: Purchased

No of floors: 1

Activities: Toilets, Bathrooms, Hall

for hire, Outside kitchen

Daily Users: 300-400

Monthly Earnings: Ksh 20,000-

25,600

Operating hours: 6am-8.30pm



# Bunkers

Banking for a Better Tommorow



Group: Bunkers Self Help Group  
Year: 2009  
Location: Kibera DC  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board  
Land acquisition: Community land  
No of Floors: Ground Floor Only  
Activities: Toilets, Bathrooms, Water Vending  
Daily users: 25-50  
Monthly earnings: Ksh 600-4,000



The centre is located in an area where there are numerous toilets and hence the few number of clients. Earlier, NEMA demolished some of the neighbouring toilets as they were a health hazard to the people and the environment, consequently increasing the number of clients for the bio centre.



# KIDYOT

Fine Tuning



Group : Kibera Kids Youth Organisation  
Year: 2010  
Location: Katwekera  
Partner Agencies: Water and Sanitation for the Urban Poor, Nairobi Water and Sewerage Company  
Land Acquisition: Purchased  
No. of floors: 1  
Activities: Toilets, Bathrooms, Rehearsal hall/Hall for hire, Kitchen Daily Users: 300  
Monthly Earnings: Ksh 50,000  
Operating hours: 6.30am-9.30pm



The centre is managed by a youth group involved in performing arts. They use the hall on a daily basis to hold their practice sessions.



# Nicofeli

House of Knowledge



Group: Nicofeli Youth Club

Location: Olympic

Year: 2011

Partner Agencies: Japanese Government, Kenya National Library Service, Kenya Institute of Education, America Friends of Kenya

Land Acquisition: Purchased

No of Floors: 1

Activities: Toilets, Bathrooms, Library, Hall for hire, Kitchen

Daily Users: 100-150

Monthly Earnings: Ksh 6400-29,800



The Nicofeli Club has now registered more than 500 children and teenagers/youth with its community based programs including the affiliated Hope Library. The Hope Library sponsors short/long term reading programs, book lending and adult to child mentoring



# Stara

Feeding Tomorrow



Group: Stara Peace Women  
Organization  
Year: 2010  
Location: Kichinjio  
Partner Agencies: French  
Development Agency, Nairobi  
Water and Sewerage Company,  
Athi Water Services Board  
No of Floors: 11  
Activities: Toilets, Bathrooms  
Offices, Hall for hire, Posho mill  
Farm, Kitchen



The group deflated from a membership of over 30 individuals in 1997 to the current 3, yet they have still managed to manage the centre and the feeding programme for children which they run concurrently. Agriculture is in practice within the bio centre's compound



# Mashimoni

Nurture for the Future



Groups: Rise and Shine, Kaganyo, Navuguza, Tusikilizane and Kimungu  
Year: 2010

Location: Laina Saba

Partner Agencies: VE International

Land Acquisition: Community Land

Number of Floors: II

Activities: Toilets, Bathrooms, Daycare, Hall for hire, Offices

Daily users: 100-200

Monthly Earnings: Ksh. 5,600-8,400

\*Within a School compound



The Bio centre came about from five different groups coming together to set it up. It is located within Mashimoni Primary School, serving it and the community at the same time. The centre's main objectives are conserving the environment; storm water management and sanitation.

The Bio Centre also hosts a day care center, owned by one of the group members, which nurtures and takes care of little children



# Lindi Usafi

Humble Beginnings



Group : Lindi Usafi Group  
Year: 2011  
Location: Lindi Ward  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board  
Land Acquisition: Community land  
No. of floors: 1  
Activities: Toilets, Bathrooms, Nursery School during weekdays and hall for hire during the weekends  
Daily users: 30  
Monthly Earnings: Ksh. 6000

If **Education** is the key to success;  
then can we call Lindi Usafi Bio  
Centre a **key holder**?

-Food for thought..



# Kilyo

Young Spirit



Group: Kibera Lindi Youth Organization

Year: 2011

Location: Lindi Ward

Partner Agencies: Japanese

Government, Athi Water Services

Board, Office of the Prime Minister,

Nairobi Water and Sewerage Company

Land Acquisition: Community land

No of floors: 1

Activities: Toilets, Bathrooms, Salon,

Rooms for hire, Hall for hire

Daily users: 10-20

Monthly Earning: Ksh. 9,800-14,000



Water is received twice a week from the Nairobi Water and Sewerage Company while electricity is supplied by Kenya Power.



# Tosha I Bio Digester

A Little Goes a Long Way



Groups: Mama Okinda &  
Mapambano  
Year: 2012  
Partner Agency: Umande Trust  
Land Acquisition: Purchased  
No of Floors: Grounf Floor Only  
Activities: Toilets, Bathrooms  
Daily users: 50-70  
Monthly Earnings Ksh. 10,300-  
11,000  
Operating hours: 6am-9pm

The little centre has been able to overlook the water shortage menace in order to help eliminate 'flying toilets' in its area of influence.

The group members not only help the community but also help themselves by giving each other loans during the time of need.



# Soweto Highrise

Saying No to Stigma



Group: Soweto Highrise Savings Scheme

Year: 2012

Location: Laini Saba

Partner Agencies: Japanese Government, Government of Kenya, Office of the Prime Minister, Athi Water Services Board

Land Acquisition: Purchased

No of floors: 1

Activities: Toilets, Bathrooms, Hall for hire, Offices

Daily Users: 10

Monthly Earnings: Ksh.1400-2800

Operating hours: 6am-8/10pm



Little children, HIV patients and disabled persons can use the facility for free.

Funds are thereby used as part of savings, giving out loans as well as for dividend



# Mwanzo Mpya

New Beginnings



Location: Laini Saba  
Year: 2013  
Group Mwanzo Mpya Savings  
Activities: Toilets, Bathrooms

“Perhaps no two issues are more important to human health, economic development, peace and security than basic sanitation and access to sustainable supplies of water”

-Hillary Rodham Clinton



# PCEA

Going the Extra Mile



Group: PCEA Silanga Church

Year: 2013

Location: Silanga

Partner Agencies: Barrhead  
Churches, Scotland

Land Acquisition: Church  
land

No. of floors: 1

Activities: Toilets, Bathrooms,  
Hall for Hire



The bio centre has two faces; one for the Silanga PCEA Church and the other for the community. It is yet to open its doors for business



# TOP III

Change for the Better



Group Change Mtaani

Year: 2013

Location: Kichinjio

Partner Agencies: Oxfam GB

Land Acquisition: Community land

No. of floors: II

Activities: Toilets, Bathrooms, Kitchen, Rental rooms, Offices, Hall for hire

The centre hopes to serve over 500 people, including the neighbouring police camp. The police camp has a separate, back entrance and designated toilets



# St Christine

Cementing Our Future



Groups: 5 Community groups

Year: **UNDER CONSTRUCTION**

Mugumoini

Partner Agencies: VE International, Under the same sky, UN

Land Acquisition: Community land

No. of Floor: II

Activities: **Toilets, Bathrooms, Kitchen, Rooms and Offices for hire, Hall for hire**



“...Most parents cannot afford to take their children to the toilets in the community, here they will get an opportunity to use them for free...”

Mr Ngazi 29, Teacher







# Changing Lives

The bio centres are a force of transformation. It does not only benefit those involved in the project but also impacting positively to its surrounding.

Cases of flying toilets and open defecation within the informal settlements are becoming a thing of the past in areas fortunate to have a bio centre.

Among the groups that have benefited the most from bio centres in Mukuru are the youth groups. These bio centres have helped them by providing jobs and coming up with other projects that generate income. It has also facilitated behaviour modification from previous illegal activities. Since the bio centres have changed these youths'

lives, they have gone ahead to be a helping hand to other youth.

In Lunga Lunga, the youth groups have used their savings to buy car wash equipment and employed other youth in the area to wash vehicles. They also help the youth to access loans for business.



An aerial photograph of a densely populated urban area, likely Mukuru. A large, irregularly shaped area on the left side of the image is highlighted in a bright yellow color. A thin red line runs diagonally across the middle of the image, separating the yellow area from the rest of the map. The map shows a grid of streets, buildings, and some green spaces. The word "Mukuru" is written in large, bold, black letters at the bottom center of the image.

# Mukuru





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# Lunga Lunga

Jack of All Trades



Group: Lunga Lunga Youth Group

Year: 2008

Location: Lunga Lunga,

Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board

Land Acquisition: Community Land

No. of Floors:11

Activities: Toilets, Bathrooms, Kitchen (rented out as a hotel), rental rooms, offices and a hall for hire.

Daily Users: 200-300

Monthly Earnings: Kshs 30,000

Operating hours: 5am-10pm

The bio-centre has helped the group members in many ways. One benefit is members are able to secure loans by helping each other sign for loans. They have projects such as: solid waste management; production of biogas (which is distributed to a neighbouring kiosk), rental rooms, carwash and urban farming.

*Motto: Water and Sanitation our priority*









# Mukuru Railway Hawkers

Re-writing Our Future



Group: Mukuru Railway Hawkers  
Organisations

Year: 2009

Location: Mukuru kwa Reuben

Partner Agencies: French Development  
Agency, Nairobi Water and Sewerage

Company and Athi Water Services Board

Land Acquisition: Purchased

No. of Floors: 1

Activities: Toilets, Bathrooms and Hall for  
hire

Daily Users: 60-70

Monthly Earnings: Kshs 9,000-18,000

Operating hours: 6am-6pm



A group member hires the bio centre for a month at an agreed fee. He/She then manages the centre and uses it to make a profit.



# Heshima Disabled

Supporting Each Other



Group: Heshima and Micro groups

Year: 2010

Location: Mukuru kwa Njenga

Partner Agencies: French Development

Agency, Nairobi Water and Sewerage

Company, Athi Water Services Board

Land Acquisition: Purchased

No. of Floors: Ground floor Only

Activities: Toilets, Bathrooms and Kitchen

Daily Users: 80-100

Monthly Earnings: Kshs 12,000-18,000

Operating hours: 6am- 7.30pm

The group consists of disabled individuals who have come together to help each other to make their lives easier. They have plans of starting a housing project whereby they will construct houses that will be friendly to the disabled. The group also has a water choice program whereby they distribute water to people's houses via long water pipes.



# ComClean

Coming Clean



Group: Community Clean  
Environmental Self-help group  
Year: 2010  
Location: Mukuru kwa Njenga  
Partner Agencies: French  
Development Agency, Nairobi  
Water and Sewerage Company,  
Athi Water Services Board  
Land Acquisition: Community  
Land  
No. of Floors: Ground floor Only  
Activities: Toilets and Bathrooms  
Daily Users: 15-25  
Monthly Earnings: Kshs 3,000-  
6,000  
Operating hours: 6am-9.30pm



“We put some of the money into our bank account and the rest is used for repair and maintenance”

- Community Clean Environmental Self-help group member



# Amusha

Conservation and Preservation



Group: Amusha Youth Organisation

Year: 2010

Location: Mukuru kwa Njenga

Partner Agencies: Oxfam GB, Nairobi City Council, Nairobi Water and Sewerage Company and JOAC (Jersey Overseas Aid Commission)

Land Acquisition: Community Land

No. of Floors: 1

Activities: Toilets, Bathrooms, shop, hall, office, Eco shower and Chicken rearing

Daily Users: 160

Monthly Earnings : Kshs 3,000

Operating hours: 6am-9.30pm



MIT (Massachusetts Institute of Technology) students came up with a project called Eco-Shower to help save water in the slums. There was a problem with the availability of materials to be used in making the eco shower in Mukuru. The group members therefore substituted the materials for ones that were available locally. They now have a good source of income, and they charge 10/= for one to use the shower. Another advantage of the eco-shower is that it is potable and anyone can use it from wherever they are.



# Vietnam

Skills Haven



Group: Mukuru Savings Network  
Year: 2010  
Location: Mukuru kwa Njenga  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company and Athi Water Services Board  
Land Acquisition: Community Land  
No. of Floors: Ground floor only  
Activities: Toilets and Bathrooms  
Daily Users: 60-70  
Monthly Earnings: Kshs 7500-10,500  
Operating hours: 6am-7pm



The group normally brings experts to train members on skills such as; tailoring and mechanics.



# Simba Cool

Together We Are



Group: Mukuru Savings Network  
Year: 2011  
Location: Mukuru kwa Reuben  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Service Board  
Land Acquisition: Community Land  
No. of Floors: Ground floor only  
Activities: Toilets and Bathrooms  
Daily Users: 12  
Monthly Earnings: Kshs 1800  
Operating hours: 6am-8pm

Simba Cool is part of a network of four bio entres owned by one group. The other three include, Sisal, Rurii and Vietnam



# Sisal

Stand up and stand out



Group: Mukuru Savings Network  
Year: 2010  
Location: Mukuru kwa Njenga  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board  
No. of Floors: Ground Floor only  
Activities: Toilets and Bathrooms  
Operating hours: 5am- 9.30pm



A clean and healthy environment caters for children free of charge. It mostly serves students from the neighbouring Rofez Community School. is mostly beneficial to children who can acquire diseases more easily than adults. The bio-centre therefore



# Rurii

The sweetness of multitasking



Group: Mukuru Savings Network

Year: 2011

Location: Mukuru kwa Reuben

Partner Agencies: French Development Agency,  
Nairobi Water and Sewerage Company, Athi Water  
Services Board

Land Acquisition: Community land

No. of Floors: 1

Activities: Toilets, Bathrooms, hall for hire

Daily Users: 45-50

Monthly Earnings: Kshs 9,000-24,000

Operating hours: 6am-8pm

The caretaker, Wilson Barongo, also a group member, works there daily. He earns his living from managing the centre as he runs a small business on the side- selling sweets at the bio centre's entrance.

Kennedy Nyandika, also a group member, has hired the group's water kiosk and turned it into an electronic repair shop



# Mukuru Environmental Project

Far to Near



Group: Mukuru Environmental Project  
Self-help Group

Year: 2011

Location: Mukuru kwa Reuben

Partner Agencies: Oxfam GB and  
Nairobi Water and Sewerage Company

Land Acquisition: Purchased

No. of Floors: 1

Activities: Toilets, Bathrooms, store,  
Kitchen and 4 rental rooms

Daily Users: 80

Monthly Earnings: Kshs 21,000

Operating hours: 5am-10pm



The bio-centre assists the disabled in the community by taking water to their houses via pipes as they are not able to carry the jerrycans by themselves.

They also distribute water to construction sites thus making work easier for them.



# Reuben Vision Self Help Group (Top II)

Understanding care



Group: Reuben Vision Self-Help Group

Year: 2012

Location: Mukuru kwa Reuben

Partner Agencies: Oxfam GB, Nairobi Water and Sewerage Company

Land Acquisition: Purchased

No. of Floors: 1

Activities: Toilets, Bathrooms, Kitchen, Rental rooms, offices and a dormitory (room)

Daily Users: 100 and 200 students who don't pay

Monthly Earnings: Kshs 12,000-15,000

“Top II pays for my school fees and gives me a place to sleep at night” - says Judy Mueni, a student at Reuben Vision School. She comes from a single parent household and her mother cannot afford her upkeep. The group members have therefore taken it upon themselves to help her out. There are also other students whose parents work during the night and so the group hosts them in one of the rooms in the bio-centre which they have turned into a dormitory.



# K.U.U.M B

New ideas



Group: Kayaba Ushirika kwa Usafi na Maendeleo

Year: UNDER CONSTRUCTION

Location: Mukuru Kayaba

Partner Agencies: Wimma Likkutta

Land Acquisition: Purchased

No. of Floors: 1

Activities: Toilets, Bathrooms  
& Offices




KUUM B is the second bio centre that the group is constructing as they already have KUUM A within the same settlement. Umande Trust helped the group begin the second project of KUUM B owing to their success of KUUM A.









The people who are part of the bio centre project have an alternative source of livelihood from the earnings that come from the bio centre. Some of the youth in Mathare and Korogocho have reformed and positively changed the perception that

the neighborhood had of them. They are now a part of a legal means of earning a living.

Bio centres give alternatives in numerous forms; not only in the sources of livelihood but also in areas of ablution for those

who are in close proximity to them and an alternative energy source to those using the gas from the usual hard energy sources. Treated solid waste and water can now be reused.



An aerial photograph of a city grid, likely in a developing country, showing a dense pattern of buildings and streets. A prominent red line, possibly a road or boundary, runs diagonally across the upper right portion of the image. In the bottom left corner, there is a semi-circular area shaded in green, which might represent a park or a specific urban zone. The overall image has a slightly faded, semi-transparent appearance.

# Korogocho





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# Kisumu Ndogo

Think Tank



Group: Biogas Centre Self-help group/ Kisumu Ndogo Development C.B.O

Year: 2007

Location: Kisumu Ndogo

Partner Agencies: Nairobi Water and Sewerage Company, French Development Agency, Athi Water Services Board

Land Acquisition: Community Land

No. of Floors: 1

Activities: Toilets, Bathrooms and Hall for Hire

Daily Users: 60

Monthly Earnings: Kshs 9,000-15,000

Operating hours: 6am-10pm



The hall on the first floor is hired out to groups and organisations. Banks also hire out the hall so as to advertise the new programs that their bank is carrying out that would benefit the people.



# Uwezo Mpya

Putting things together



Group: Uwezo Mpya Self-help group

Year: 2009

Location: Grogon

Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board

Land Acquisition: Purchased

No. of Floors: 1

Activities: Toilets, Bathrooms, Hall for hire

Monthly Earnings: Kshs 4,500-12,000

Operating hours: 7am-7.30pm

Most of the group members have been saved from taking part in illegal activities such as stealing because now they are fully occupied by activities in the bio centre and trying to make extra money for savings. The centre's caretaker is also a member of the group who, other than taking care of the centre, makes jewellery using beads in order to make a little more money.



# Ngunyumu

The Right Direction



Group: Ngunyumu Welfare Association  
Year: 2010  
Location: Gitadhuru  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board  
No. of Floors: Ground floor Only  
Activities: Toilets and Bathrooms  
Daily Users: 25-40



The welfare association comprises of landlords/ladies who have come together from Gitadhuru area. In order for one to be a member he/she should own property in the area i.e. be a landlord or landlady, reside in Korogocho Gitadhuru area, be over 18 years of age and must pay the required fees.



# Tegemeo

Fruitful work



Group: Tegemeo Self-help group  
Year: 2010  
Location: Nyayo Village  
Partner Agencies: Nairobi Water and Sewerage Company, French Development Agency and Athi Water Services Board  
Land Acquisition: Purchased  
No. of Floors: 1  
Activities: Toilets, Bathrooms, office, hall for hire  
Monthly Earnings: Kshs 36,000  
Operating hours: 6.30am-6.30pm

The bio centre is located in the heart of a market, solely serving it. Other than providing water and sanitation services, the group members also carry out garbage collection on a weekly basis so as to ensure that the environment is clean.



# KHDO/IDVIK

Envisioning a Better Tomorrow



Group: Integrated Development for the Visually Impaired Kenya

Year: 2011

Location: Githaduru Central Village

Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board

Land Acquisition: Purchased

No. of Floors: 1

Activities: Toilets, Bathrooms, an office and two rental rooms

Monthly Earnings: Kshs 3,000-11,400

Operating hours: 7am-7pm



The group consists of members who are visually impaired as the name suggests. They came together in hopes of making a difference in their community as much as the non visually impaired community members can.



# KOCHOTO

Balancing the ecosystem



Group: Kochoto Self-Help Group

Year: 2011

Partner Agencies: Oxfam GB, Nairobi City Council, Nairobi Water and Sewerage Company, Jersey Overseas Aid Commission (JOAC)

Land: Polytechnic Land (CDF)

Land Acquisition: Community Land

No. of Floors: 1

Activities: Toilets, Bathrooms, Store (mpesa), Barber shop and hall

Monthly Earnings: Kshs 36,000- 54,000

Operating hours: 6am-7pm

The centre has a fully functioning post-treatment centre, whose water they use in agricultural practices.

The bio centre also serves the nearby market by providing both water and sanitation needs as well as financial services (mpesa shop).



# Inspiration

Light at the end of the tunnel



Group: Inspiration Self- help group  
Year: 2012  
Location: Kitasuru-Korokoni B  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board  
Land Acquisition: Purchased  
No. of Floors: 1  
Activities: Toilets, Bathrooms, Hall and Office (for group)  
Daily Users: 7  
Monthly Earnings: Kshs 100-150  
Operating hours: 8am-6.30pm



“Kulikuwa na machoo hazishughulikiwi, flying toilets zilikuwa mingi, lakini saa hizi kumboreka”

Translated as:

“Toilets had been neglected and there were numerous cases of flying toilets but all that has changed now for the better”

- Purity Nduku, 23



# Highridge

Aiming high



Group: Highridge Development Group  
Year: 2012

Location: Highridge

Partner Agencies: Youth Initiatives Kenya,  
Umande Trust, Oxfam GB and Emmaus,  
Nairobi Water and Sewerage Company and  
Athi Water Services Board

Land Acquisition: Purchased

No. of Floors: 1

Activities: Toilets , Bathrooms, Kitchen, 5  
rental rooms and hall for hire

Daily Users: 60-65

Monthly Earnings: Ksh. 300-350

Operating hours: 24hrs

The group does not charge for toilets' usage, aiming to attract a large number of people so as to produce large amounts of bio gas.



# Korogocho Youth Unity

Tapping into potential



Group: Korogocho Youth Unity  
Location: Korogocho Market  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board  
Activities: Toilets, Bathrooms  
Operating hours: 6am- 6pm



“A small body of determined spirits fired by an unquenchable faith in their mission can alter the course of history”

~ Mahatma Gandhi



# Together We Can Work

Reaching for the Skies



Group: Together we can youth group  
Location: Gitadhuru village  
Partner Agencies: French Development Agency, Nairobi Water and Sewerage Company, Athi Water Services Board  
No. of Floors: 1  
Activities: Toilets, Bathrooms, Hall for Hire





# Mathare'





St Helena 63



Twaweza 64



# St Helena

In peace and Harmony



St Helena Legion Maria Church

Year: 2011

Location: Mathare No. 10

Land Acquisition: Church Land

No. of Floors: 1

Activities: Toilets, Bathrooms, offices

Operating hours:: 6.30am-9.30pm



The bio centre is owned and managed by the church that is affiliated to the Legio Maria, a spirit initiated church. The bio centre serves the church members and the children that school in the church's academy, St Hellena Academy.



# Twaweza Community Group

Together we can



Group: Twaweza Community Project

Year: 2011

Location: Mabatini

Partner Agencies: Civil Society Urban Development Program, Embassy of Sweden

Land Acquisition: Community land

No. of Floors: 1

Activities: Toilets, Bathrooms, Kitchen and hall

Monthly Earnings: Kshs 15,000-24,000

Operating hours: 6am-10pm

Twaweza community project's initial aim was to promote sporting activities among the youth, especially football, to avoid idleness. The bio centre has a garden in its front yard where the group members hold meetings and allow community members to relax in. They also have a TV in their hall which they allow community members to use at no cost.



# Kibagare





# Kibagare

The connection

Group: Kibagare Haki Zetu Saving and Settlement

Year: 2011

Location: Kibagare

Partner Agencies: Haki Jamii, per Josepson and Jopson, Swedish International (CSUDP)- Civil Society Urban Development Program

Land Acquisition: Donated by Kibagare Community Based Organisation (K.C.B.O)

No. of Floors: 1

Activities: Toilets, Bathrooms, rental rooms, Kitchen, Malaika Baby Care and learning centre and support toilets;-

- At Kibagare Compassion Nursery School
- Toilet for youth trust fund group
- Kibagare Haki zetu project

Daily Users: 150-200

Monthly Earnings: Kshs 30,000-48,000

Operating hours: 5.30am-10pm



The bio centre serves support toilets. The toilets have been strategically placed to serve most of Kibagare; the waste is then directed to the bio-centre via a sewer line. Once at the centre, it is used to produce bio gas.



An aerial photograph of a densely populated urban area, likely a town or city. The buildings are tightly packed, and the streets are narrow. A prominent red line runs diagonally across the image, possibly indicating a boundary or a specific area of interest. The overall color palette is muted, with earthy tones and some greenery visible in the background.

# Mji wa Huruma



# Mukayo .V. Mukoyo

Ready and Set to Get Going



Groups: Vision group, Kogeria women's group, Young men Mushroom group, Upendo group, Kangei Nyakinywa., Mwirerii group, Youth development group  
Partner Agenices: Chinese Embassy  
Year: 2010  
Location: Mji wa huruma  
No. of Floors: 1  
Daily Users:120-140  
Activities: Toilets, Bathrooms  
Operating hours: 6am to 6pm

The chinese ambassador to Kenya helped ignite the flame of change through team work by encouraging the people of Mji wa Huruma to come together, pull resources and become a movement.





# Nakuru



# Mwamko Mpya

Coming Up



Group: 9 Groups

Year: **UNDER CONSTRUCTION**

Location: Rhonda

Partner Agencies: Comic Relief UK  
and Practical Action

Land Acquisition: Community  
Land

The Bio centre is a part of a greater project, a strategy employed in the worldwide CLTS (Community Led Total Sanitation) program to improve sanitation within Rhonda and Kaptembwo



An aerial photograph of a city with a grid-like street pattern. A prominent red line runs diagonally from the top right towards the bottom left. A horizontal blue shaded area is overlaid on the bottom half of the image, containing the text 'Nyanza & Western'.

# Nyanza & Western









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# Bandani

Innovation and conservation



Group: Bandani bio-centre

Location: Kogony sub-location

Year: 2011

Partner Agencies: Sida, Civil Society  
Urban Development Programme  
(CSUDP), Kisumu Municipality, SANA,  
KIWASCO and Umande Trust

Land Acquisition: Municipal land

No of Floors: 1

Activities: Toilets, Bathrooms, Rental  
rooms, offices and a hall

Daily Users: 0-10

Monthly Earnings: Kshs 1800

Operating Hours: 6am- 6pm



One of the youth groups associated with the bio centre has gone beyond the confines of the neighbourhood to put in additional effort to save the Great Lake Victoria from the invasion of hyacinth by collecting it and reusing it to make household items. They sell the items at affordable prices and use the money to improve their lives.



# Nyalenda A

A Fresh Start



Group: Nyalenda Bio-tower project  
Location: Nyalenda B  
Year: 2010  
Partner Agencies: Sida, COOPI and OVE, Umande Trust, KOEE (SECODE), Muungano wa wanavijiji-Nyalenda, Pandipieri Primary School, Pamoja Trust, NACK (Education Department).  
Land Acquisition: Community land  
No of Floors: Ground floor Only  
Activities: Toilets and Bathrooms  
Daily Users: 45  
Monthly Earnings: Kshs 6,000-16,500  
Operating Hours: 6.30am- 6.30pm

Numerous boda boda operators come to the centre to freshen up before and after a long day's work. The centre has therefore specialised in providing baths, clients are even supplied with cakes of soap at a small fee.



# Obunga

At your door step



Group: Obunga bio-tower CBO (12 groups)

Location: Obunga

Year: 2011

Partner Agencies: Halcrow foundation, SANA, KIWASCO, MCK  
Land Acquisition: Donated by former councillor (James O. Oyollo)

No of Floors: II

Activities: Toilets, Bathrooms, Kitchen, Offices and a hall

Daily Users: 80- 100

Monthly Earnings: Kshs 13,500-17,400

Operating Hours: 6am- 9pm



Obunga has a delegated water management model; whereby Kisumu Water and Sewerage Company has decentralized the water service provision by issuing licenses to the people to distribute water. WATSAN, a constituent group of the Obunga Bio Tower CBOs, distributes water, with such a license. They use lengthy pipes to pipe the water to homes within the settlement which are not connected to the city's water supply system.



# Manyatta

Team Spirit



Group: Manyatta Resident Association Bio tower management

Location: Manyatta A

Year: 2013

Partner Agencies: Umande Trust, Lake Victoria South Water Services Board, KIWASCO, SANA, CCK, Cordaid (Urban Matters, Quick Wins) and Sustainable Aid in Africa.

Land Acquisition: Manyatta Primary School land

No of Floors: 1

Activities: Toilets, Bathrooms, Offices Hall for hire

Monthly Earnings: Kshs 2,000-3,000

Operating Hours: 5am- Midnight

Group members have shares invested in the bio centre estimated at Sh. 5000. Newer members contributed in cash form whereas the older members contribute 'in kind'.

'In Kind' is the equation of labour and non-monetary contributions such as food for the workers to shares.



# Legion

Power from above



Legion Maria of African Church  
Mission  
Location: Manyatta  
Year: 2013  
Partner Agencies: Cordaid and the  
Church  
Land Acquisition: Own  
No of Floors: II  
Activities: Toilets, Bathrooms, Guest  
rooms, Kitchen and a hall  
Daily Users: 45 residents and their  
children  
Operating Hours: 24hrs



“When people come here from different places, they are surprised to see toilets as beautiful as these ones. The first thought that comes to their mind is that this is a house. Toilets are not usually this nice”

- Bishop Mathews



# Kibuye

Responsibility



Group: Kibuye Traders Bio-centre CBO  
Location: Kibuye market  
Year: 2012  
Partner Agencies: UN-HABITAT, CCK and Urban Matters  
Land Acquisition: Community land  
No of Floors: 1  
Activities: Toilets, Bathrooms, Office, Mpesa shop and a Bar  
Daily Users: 170- 250  
Monthly Earnings: Kshs 21,000- 24,000  
Operating Hours: 6am- 7pm

Kibuye Traders Bio Centre converted the top floor into a social meeting area serving both alcoholic and non- alcoholic drinks. It gives the centre a special vibe and unique atmosphere as the centre almost always has people around



# Mbaga

Gone Green



Mbaga Girls Primary Boarding School

Location: Mbaga-Siaya County

Year: 2012

Partner Agencies: Parents/ Teachers Association

Land Acquisition: Own

No of Floors: 1

Activities: Toilets, Bathrooms, offices and conference room

Daily Users: Students

Monthly Earnings: N/A

Operating Hours: 24hrs



Mbaga Girls Primary School has gone green. The bio centre is not the only tool they use to manage the school's waste. There are also Urine Diversion Toilets. The toilet system separates the two types of human waste. The user pours in ash into the toilet after use which mixes with the solid waste and the end product is fertiliser. The school uses the biogas produced from the bio centre as fuel in the school kitchen.



# Nyabondo

Addin colour to life



Nyabondo Girls Boarding  
Primary School  
Location: Nyabondo  
Year: **UNDER  
CONSTRUCTION**  
Land Acquisition: School's land  
No of Floors: Ground Floor  
Activities: 16 Toilets  
Daily Users: 43 Staff and 370  
girls  
Monthly Earnings: N/A  
Operating Hours: 24hrs

The project was done solely by the school with the help of Umande Trust. The school has put up toilets strategically all over the school for both students and staff



# Silanga

Unity in Diversity



Shirali Primary School

Location: Khwisero District

Year: 2010

Partner Agencies: Engineers Without Borders, Parents/ Teachers Association, Africa Now

Land Acquisition: Own

No of Floors: Ground Floor only

Activities: Toilets

Daily Users: 312

Operating Hours: 24hrs



The structures' design and construction was done and facilitated by engineering students from the University of Montana and who are part of Engineers Without Borders. The joint effort resulted in unique structural designs of the latrines' layout. They have numerous projects within Khwisero, with that in Silanga Primary School being one of them.



# Homabay

Lucky with the lake



Group: Homabay Environmental bio-centre initiative CBO (6 groups)

Location: Arujo sub-location

Year: 2013

Partner Agencies: South Nyanza Water Company, Public Health, NEMA, Municipal Council of Homabay and UN-HABITAT

Land Acquisition: Community land

No of Floors: 1

Activities: Toilets, Bathrooms, Shop, Kitchen, hotel and hall

Daily Users: 30- 37

Monthly Earnings: Kshs 4050- 11,100

Operating Hours: 6.30am- 6pm

The bio centre is located at a prime spot, on the shores of the Great Lake Victoria. It is ever breezy and calm hence the reason why the hotel that is located at the bio centre got the name 'Breeze Point'. The bio centre produces biogas which is used as fuel in the preparation of food for the hotel. The bio centre mostly uses the lake water.





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WATER SERVICES BOARD



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**NAIROBI WATER**  
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**CAROLINA for  
KIBERA**



Office of The Prime Minister



**af**  
AGENCE FRANÇAISE  
DE DÉVELOPPEMENT



**UNDER THE  
SAME SKY - KENYA**



**Sida**



**maji na ufanisi**  
Water and Development



**KENYA INSTITUTE OF EDUCATION**



## Photography

Nasra O. Bwana

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