



Address P.O.Box, 163, Ruiru Tel: +254 020 2321585 Website: www.mceso.webs.com Email: mceso@yahoo.com

TO: Can Assist African Relief Trust
562 Sycamore Street,
Kingston, Ontario, Canada.
K7M 7L8
Email: info@canassistafrica.ca

DATE: 27/05/2014

Dear Friends,

REF: ENHANCING ACCESS OF WATER AND SANITATION AT TWIGA PRIMARY SCHOOL IN RUIRU DISTRICT IN KENYA

School water, sanitation and Hygiene Education have been seen as a priority component around the globe. Children are the best motivators at the community and household level and this is what triggered and gave birth to this project after a 20 days survey of water and sanitation (WATSAN) in local public schools in Ruiru district of Kenya that was conducted by MCESO. We found that the situation WATSAN in all 25 local public schools. These schools suffered from: non-existent, insufficient, water supply, sanitation and hand-washing facilities; and latrines that were not designed to be child friendly and do not function properly.

We want to express our appreciation to all the trustees, board members, staff and the friends of **CAN ASSIST AFRICAN RELIEF TRUST** for their generosity in support of our project titled, provision of clean portable drinking water and construction of enhanced sanitation facilities in Mutundu primary school in Ruiru District Of Kenya. Your financial commitment has incredibly helped and has allowed us to reach our goal. We would like to let you know that your financial inputs towards our proposed project have greatly helped the project turn into a successful and replicable model. Even though the world has experienced hard economical moments, you people have gone a step forward and made the dreams of many marginalised children from poor backgrounds come true. We 100% acknowledge your financial support. Please know how much you've helped the children and the teachers at TWIGA primary school and how much we all appreciate it. Again, thank you for all you have done to our organisation and our beneficiaries.

In solidarity,
Mr. Michael Gichia,
Project Director,
Murera Community Empowerment and Support Organisation

MURERA COMMUNITY EMPOWERMENT
& SUPPORT ORGANIZATION
P. O. Box 163, RUIRU
Tel: 020-2148055

**PROJECT REPORT ON;
Enhancing access of water and sanitation at TWIGA PRIMARY SCHOOL in
Ruiru district in Kenya**

SUBMITTED BY;

Mr. Michael Gichia;
Murera Community Empowerment & Support Organization
P.O.Box, 163, Ruiru
Tel.: +254 020 2321585
Email: mceso@yahoo.com

Project introduction

Murera Community Empowerment & Support Organization (MCESO) received Kenya shillings **589,935** from **CAN ASSIST AFRICAN RELIEF TRUST** on 31/01/2014 and the grant was meant for provision of clean potable drinking water and construction of enhanced sanitation facilities at TWIGA PRIMARY SCHOOL in Ruiru District Of Kenya. This is one of the schools that was selected by MCESO during the assessment and analytical survey of school water and sanitation conducted in over 25 local primary schools in the district by the beginning of the year 2010. From a pool of schools that were assessed, MCESO decided to prioritize on this school since it had the highest vulnerability of water and sanitation related illness with a special focus of reducing absenteeism.

Project Start and End Dates

This project commenced on 06/02/2014 and was completed on 15/05/2014 and has since been handed to the school management.

The existing water & sanitation problems the project sought to address

Access to water and sanitation is a fundamental human right and essential to life, health and dignity. Timely and adequate provision of clean water and sanitation services to uprooted people is particularly important, given the vulnerability of their situation. While the impact of poor sanitation and hygiene is known to be disastrous for infants and young children, it also has an important impact on the health of school-age children including adolescents. It is obvious that lack of sanitation and hygiene is a public disaster that deserves the highest priority. Most of these infections which are related to poor sanitation and hygiene ARE PREVENTABLE. Diseases such as diarrhea and parasitic worm infections need to be tackled by making improvements to water and sanitation facilities. However such improvements must go hand in hand with hygiene behavior change, if the transmission of disease is to be prevented.

Disease is not the only problem caused by poor sanitation in the school environment. Providing safe and separate sanitation facilities for girls, particularly adolescents, is one of the key factors in promoting greater school attendance by girls, and preventing them from staying away from school, particularly during menstruation. Access to sanitation facilities is a fundamental right that

safeguards health and human dignity. Providing those facilities at schools not only helps to meet that right, it also provides the most favorable setting to encourage behavior change in the school and in the community.

The project had been selected as the priority project for the community after carrying out a participatory school needs appraisal, which was done by this organization together with the local communities. We found out that the project was technically viable for it didn't need outside technical personnel apart from the Local workers. This initiative sought to offer a long-term and proven benefit of rainwater harvesting to local school children in Ruiru district by providing a sustainable alternate source of potable water that would be used for drinking and washing the constructed sanitary facilities hence uphold hygienic environment for school going children.

The primary goal of this project has been to help mitigate the current shortage of safe drinking water supply and poor sanitary facilities in **TWIGA** primary school and thus help address the water-related health problems among the children in the target school. The project has provided equipments and facilities that children needs for sanitation, hand-washing, and water supply, programs supporting children develop skills, attitudes, and knowledge of effective hygiene .The provision of clean drinking water and hygienic sanitary facilities in public primary schools is an initiative to save lives and reduce suffering to school children who lack these basic services as well as provide good environment for learning. The project has supported full installation of rain water harvesting facilities and equipments including gutters, as well as construction of 8 toilets for boys 3 for the teachers and renovated the latrine block for the girls that was constructed in the year 2006. In addition we have carried out hygiene promotion activities geared at engendering behaviour change on water and sanitation hygiene in the interest of maximizing on benefits from water and sanitation facilities.

MCESO aimed at solving the problems by providing toilets, hand washing facilities, safe water, and capacity building on safety and hygiene for the affected children in **TWIGA PRIMARY SCHOOL**. Providing access to sufficient quantities of safe water, provision of facilities for a sanitary disposal of excreta, and introducing sound hygiene behaviors have been of capital importance to reducing the burden of disease caused by these risk factors as well as ensure that children are in good learning environments since a recent hygiene intervention study shows that diarrhea disease transmission in is reduced by promotion of safe drinking water, hand-washing, and dish-washing behavior.

Project goals

The project sought to meet the following goals;

- Promote provision of clean water & hygienic sanitation for the 535 children in **TWIGA PRIMARY SCHOOL** in Ruiru district by the end of the year 2014
- To increase the number of school children with sustainable and reliable access to clean drinking water and hygienic sanitation facilities in TWIGA PRIMARY SCHOOL in Ruiru District by the end of the year 2014
- To improving the health care system in local primary school in Ruiru district by the end of the year 2014
- To provide good quality and adequate water to reduce the health risks especially of children under age of 5 (reduce child mortality rate) by the end of the year 2014

The outline of what was required to solve the problem

Before implementation, our developmental objectives for the project were;

- To increase the availability of safe and clean drinking water for the 535 children in TWIGA PRIMARY SCHOOL in Ruiru district by the end of 2014 by installation of rain water harvesting equipments and facilities.
- To lessen the incidence of water borne disease among the young school going children in the target primary school from 20% to 95% by the end of 2014 through sensitizing and educating the children on the importance's of drinking clean water always at schools and at their homes
- To lessen the incidence of disease caused by poor sanitation and personal hygienic measures from 30% to 95% by the end of 2014 by constructions of save and hygienic sanitary blocks in TWIGA PRIMARY SCHOOL.
- Carry out sensitization, hygiene promotion and training on drinking clean water and observing proper sanitation measures for the children in the target school.
- Strengthen capacity of TWIGA PRIMARY SCHOOL to maintain clean water sources for children
- Enhance knowledge of (WASH) Water and Sanitation Hygiene education in TWIGA PRIMARY SCHOOL in Ruiru district
- Promote school project ownership through establishment of hand wash and hygiene club to ensure project sustainability

Details of what is/was required solving the water & sanitation problem

To solve the water & sanitation related problems at TWIGA PRIMARY SCHOOL, the following actions have been undertaken successfully;

- Procurement and installation of rain water harvesting gutters at TWIGA PRIMARY SCHOOL
- Construction of hygienic sanitary and urinal facilities for the children, and teachers at TWIGA PRIMARY SCHOOL
- Renovation of sanitary block of the girls
- Connection of tap water
- Installations of hand wash facilities for the children at TWIGA PRIMARY SCHOOL to facilitate hand wash and help in observation of good hygiene behaviours.
- Emphasis on maintenance of facilities and organizing teachers and children for good use and cleaning of facilities
- Training of school children on correct hand washing, excreta disposal, wastewater disposal, treatment and protection of water, personal and household hygiene and food handling

Activities undertaken

To effectively meet the set goals and objectives of the project, the following activities have been undertaken at TWIGA PRIMARY SCHOOL;

- Introduced the project to the school principal at TWIGA PRIMARY SCHOOL seeking a go ahead with the implementation of the project.
- Met the school committee and explained to them the importance of the project to the children as well as the entire school.
- Selected and surveyed the area where latrines were to be constructed
- Procured building materials for construction of latrine units in the target school using locally available materials
- Installed hand wash station at the school, sited appropriately near latrine blocks to facilitate good hygiene behaviors.
- Procured equipments and facilities for rain water harvesting. This included, gutters for water harvesting, fusal boards, nails, paint among others.

- Organized hygiene education. Created awareness and promoted key hygiene messages and practices. School health and hygiene education were conducted, where health education messages on hygiene promotion have been passed to the children through child to child (CTC) and child hygiene and sanitation transformation (CHAST) approaches adopted.
- Reported periodically to the CAN ASSIST AFRICAN RELIEF TRUST

An outline of the schedule of work

The table below shows how the project activities were implemented;

Activities	FEB –MAY 2014									
	F	F	F	M	M	A	A	M		
Introduced the project to the school principal	█									
Selected and surveyed latrines construction area together with the school principal and the school chair man	█									
Installed rain water harvesting equipment and facilities			█							
Submitted project updates to Can Assist African Relief Trust	█	█	█	█	█	█	█			
Procured building materials for the construction of latrine	█	█								
Construction of latrines commenced	█	█	█	█	█					
Organized hygiene education			█							
Installed hand wash stand				█	█	█				
Conducted monitoring and evaluation of the project progress	█	█	█	█	█	█				
Submitted Final project to Can Assist African Relief Trust								█		

Benefits realised form the project

The project has brought about the following benefits to the school children in **TWIGA PRIMARY SCHOOL**;

- 555 school children and 15 teachers at **TWIGA PRIMARY SCHOOL** in Ruiru district have safe sanitation and drinking water facilities.
- The school enrolment has gone up by 20 more children by the beginning of second term thanks to the water and sanitation enhancement project
- The project has improved access to water supply at **TWIGA PRIMARY SCHOOL** in Ruiru District
- The project has brought positive perception among the school children on sanitation and personal hygiene e.g. hand washing practices, proper disposal of wastes and economical use of water as well as improved knowledge about hygiene and environmental sanitation;
- The project has brought about reduction in water shortages at **TWIGA PRIMARY SCHOOL** and therefore more time for learning for the children.
- The project has reduced diseases associated with drinking dirty water and observing unclean hygienic behaviour among the school children
- The school has functional hand wash facilities for the promotion of health and hygiene
- Preliminary training on sanitation and cleanliness has been conducted.

Number of beneficiaries targeted and reached

The already implemented project is directly benefiting 555 school going children aged between 4 -15 years and 15 teachers at **TWIGA PRIMARY SCHOOL**

Project out puts

The project has been completed and the following out puts are on the ground and ready for the use by the beneficiaries,

- We have constructed 3 ventilated latrines for teachers at **TWIGA PRIMARY SCHOOL**
- We have constructed 8 ventilated latrines for the boys with a urinal on each side at **TWIGA PRIMARY SCHOOL**
- We have renovated 8 latrines for the girls at **TWIGA PRIMARY SCHOOL**
- We have constructed a double sided hand wash station for girls and boys at **TWIGA PRIMARY SCHOOL**
- We have connected tap water at **TWIGA PRIMARY SCHOOL**
- We have harvested rain water for the children at **TWIGA PRIMARY SCHOOL**

Were the objectives achieved?

The project objectives were achieved through the following evidence;

- A total of 555 school children and 15 teachers at **TWIGA PRIMARY SCHOOL** are now accessing clean and safe water;
- **TWIGA PRIMARY SCHOOL** has improved latrines and hand washing facilities serving
- 555 school children and 15 teachers;
- The project has reduced incidences of diarrhea and other water-born diseases among the school children
- The project has completely eradicated long queues witnessed during break time especially boys
- It can be inferred that there will be reduced cases of water related illnesses, reduced absenteeism among girls, committed teaching staff due to availability of improved sanitation facilities and supportive communities resulting from the training interventions.

Maintenance and sustainability of the project

In spite of the relative poverty in the project areas, community members have agreed to contribute towards maintenance of the facilities. The PTA and the school managements have agreed that each parent will be contributing kshs 50 at the beginning of each term to go towards the maintenance of the facilities to enhance durability. Too, we have established water and sanitation committee comprises of the school principal, senior teacher and the chairman of the PTA to run and oversee good practice and proper usage of the facilities.

Overall performance of the project

Overall, the project will continue making a significant contribution to the protection and improvement of the livelihoods of vulnerable children at **TWIGA PRIMARY SCHOOL** through its positive impact on water usage, decreased water borne related diseases, improved children hygiene and sanitation. Health & Hygiene Promotion Activities have been established to address a lack of knowledge of basic hygiene practices, such as hand washing at critical times.

Any problems encountered

There was no problem encountered during the whole duration of project implementation. Too, the schools management was co operative as well as the local communities and this gave us enough room to implement the project successfully.

Lessons learnt

- The major lesson learnt from this project is that political will is garnered when the local leadership is involved right from the beginning of the project.
- The parents are willing to contribute towards the maintenance of the facilities to ensure durability
- School sanitation and hygiene education is more than construction and coverage
- Safe facilities, good management and proper hygiene practices need to go hand in hand
- Water, sanitation and hygiene projects can reverse all of these trends and enable children to go to school more often and learn better in a cleaner, healthier environment.
- Fewer diseases and more water mean that children are properly hydrated and are able to concentrate and study better.
- Hygiene education in school can help children and their families adopt healthier practices.

Project Expenditures

Category	Items	# of Units	Unit description	Cost in kshs
Harvested rain water	Fisual boards	400fts	-Procured 400 fts fisual boards for electing gutters@ Kshs 78 per ft = $400 \times 78 = 31,200$	31,200
	Gutters	60 pieces	-Procured 60 medium size water harvesting gutters @ Kshs 380 = $60 \times 380 = 22,800$	22,800
	Water taps	10, pieces	-Procured 10 water taps for hand wash stations for the children @ Kshs 360 = $10 \times 360 = 3,600$	3,600
	Nails	10 kg	-Procured 10 kg of stain less steel nails @ Kshs160 = $10 \times 160 = 1,600$	1,600
	Paint	4 x20kgs gallons	-Procured 4 x20kgs gallons paint for the fisual boards & latrines @ Kshs1,500 = $4 \times 1,500 = 6,000$	6,000
	PVC pipes	15 pieces	-Procured 15 PVC pipes for hand washing stand @ Kshs 430 = $15 \times 430 = 6,450$	6,450
	PVC glue	1 tube	-Procured 1 tube of PVC glue for fixing the PVC pipes @ Kshs 680	680
	Plumber	1 person	Hired a plumber for 1 day @ Kshs 1,500 to fix the pipes	1,500
SUB TOTAL				73,830
Constructed Sanitation blocks	Digging of 2 x 30 fts deep drop pit latrine	10 deep drop latrines	-Dug and excavated of deep drop pit latrines for the children & teachers @ kshs 1,250 per ft	75,000

			$= 2 \times 30 \times 1,250 = 75,000$	
	Building stones	3 lorries	-Procured 3 lorries of building stones for latrines construction @ kshs 24,300 = $3 \times 24,300 = 72,900$	72,900
	Building sand	3 lorries	-Procured 3 lorries of building sand for latrines construction @ kshs 25,500 = $2 \times 25,500 = 76,500$	76,500
	Ballast & hard core	2 lorry	-Procured 2 lorries of ballast for latrines construction @ kshs 8000 = $8000 \times 2 = 16,000$	16,000
	Metals for slab	15 pieces	-Procured 15 pieces of γ 12 steel metals for slab @ kshs 1,160 = $15 \times 1,160 = 17,400$	17,400
	Wire mesh	6	-Procured 6 pieces of wire mesh for the slab @ kshs 680 = $6 \times 680 = 4,080$	4,080
	Cement	70	-Procured 70 bags of cement for the latrine construction @ kshs 785 = $785 \times 70 = 54,950$	54,950
	Timber for roofing	400 fts	-Procured timber for latrine roofing @ kshs 65 per ft = $400 \times 65 = 26,000$	26,000
	Iron sheet	30 pieces	-Procured 30 iron sheets for latrine roofing @ kshs 1,055 = $1,055 \times 30 = 31,650$	31,650
	Frames	10 pieces	-Procured 10 frames for the latrines @ kshs 1,200 = $10 \times 1,200 = 12,000$	12,000
	Doors	10 pieces	-Procured 10 wooden doors for the latrines @ kshs 2,000 = $10 \times 2,000 = 20,000$	20,000
	Hedges	5 dozen	-Procured 5 dozen of hedges for the doors @ kshs 125 = $5 \times 125 = 625$	625
	Waste pipes	3 pieces	-Procured 3 waste pipes for the latrine and urinals @ kshs 1,500 = $1,500 \times 3 = 4,500$	4,500
			-Procured 100 fts(6 x2) of beam	

	Beam	100 fts	for holding the slabs @ kshs 65 = 100 x 65 = 6,500	6,500
	Timber	250 fts	-Procured 250 fts of (6 x1) timber for the slabs @ kshs 30 = 250 x 30 = 7,500	7,500
SUB TOTAL				425,605
Project Administration	Stationery	3 months	-Procured stationery for the project @ kshs 1,500	1,500
	Transport and Communication	3 months	-Transport and communication to the project site for 3 months @ kshs 18,000	18,000
	Labour	3 months	-Hired for 4 construction staff @ kshs 68,000	68,000
	Project reporting	3 months	-Costs for reporting @ kshs 3,000	3,000
SUB TOTAL				90,500
TOTAL PROJECT EXPENDITURES				589,935

Project photos

The following photo shows the state of **TWIGA PRIMARY SCHOOL** before the project implementation and after the project implementation;

TWIGA PRIMARY SCHOOL BEFORE



TWIGA PRIMARY SCHOOL AFTER





Erection of fisual board & gutters



complete rain water harvesting system



Nursery teacher using a container to wash children hands during lunch hour. This shows how the school was affected by Lack of water.



A newly constructed hand washing stand for the children and teachers.



State of girl's latrine before renovation



State of girl's latrine after renovation



State of teacher's latrine before



State of teacher's latrine after



State of boy's latrine before construction



State of boy's latrine after construction



Some of Twiga girls pose for a photo on the newly constructed boy's latrine

Conclusions

Schools, particularly those in rural areas, often completely lack drinking-water and sanitation and hand washing facilities; alternatively, where such facilities do exist they are often inadequate in both quality and quantity. Schools with poor water, sanitation and hygiene conditions, and intense levels of person-to-person contact, are high-risk environments for children and staff, and exacerbate children's particular susceptibility to environmental health hazards.

Girls and boys are likely to be affected in different ways by inadequate water, sanitation and hygiene conditions in schools, and this may contribute to unequal learning opportunities. Sometimes, girls and female teachers are more affected than boys because the lack of sanitary facilities means that they cannot attend school during menstruation.

We would like to thank **CAN ASSIST AFRICAN RELIEF TRUST** once again for supporting these children as well as teachers since without your timely support, in deed this school could have been closed by the health officers since the school principal had already been issued with a letter of intent to close the school until such a time there would be proper latrines for the children as well as for the teachers .In deed your financial support towards **TWIGA PRIMARY SCHOOL** has improved the school situation for worst to best and may God keep on blessing you all. We hope that you will continue supporting many of our emerging projects!

Parting shot

I am only one, but still I am one. I cannot do everything, but still I can do something; and because I cannot do everything, I will not refuse to do something I can do.

No act of kindness, however small, is ever wasted.