Fondation Eagle
Project Completion Report FF 644
January 2024

Sanitation Project: Community School Kisauni Infrastructure development at Mtopanga Training Centre to maximise the collection of rainfall and support the development of facilities for climate-smart farmer training.

Donor Reference: FF 0644
Date of Acceptance: 13th December 2022
Donation Amount: £25,225
Project Duration: December 2022 - December 2023
Number of Beneficiaries: Direct - 1072. Indirect 5680
Location: Demo Farm, Mtopanga, Kisauni District, S03°59'38.8" E039°41'45.4"

Project Description

Project funding was awarded to two capital projects:-

- To install sanitation in the new community-owned Munnawar primary school in Madzo CBO in Voroni

- To expand capacity and build new infrastructure at Haller's Demonstration & Training farm at Mtopanga - to encourage smallholders to maximise food production during periods of minimal rainfall

1. Sanitation

Munnawar Nursery School is located 3km from Haller's most remote community. Madzo CBO, formed 3 years ago, is located in Voroni, a 50 km challenging drive from Haller's HQ, along mainly unmade roads. Its' parent-led community nursery school was constructed relatively recently, when the land was donated by a local farmer and benefactor.

Already supported by Haller's existing outreach programme, where the schoolchildren are educated with age-appropriate hygiene workshops called "healthy habits", the lack of nearby WASH facilities was leading to the spread of disease. Open defecation was being practised, with diarrhoeal infection particularly impacting those children under 5. With the local population growing at an alarming rate, due to the development of improved infrastructure, accessible roads, services and communication networks locally, the need for proper toilets was vital so that good hygiene practices are built at an early age.

Project Completion

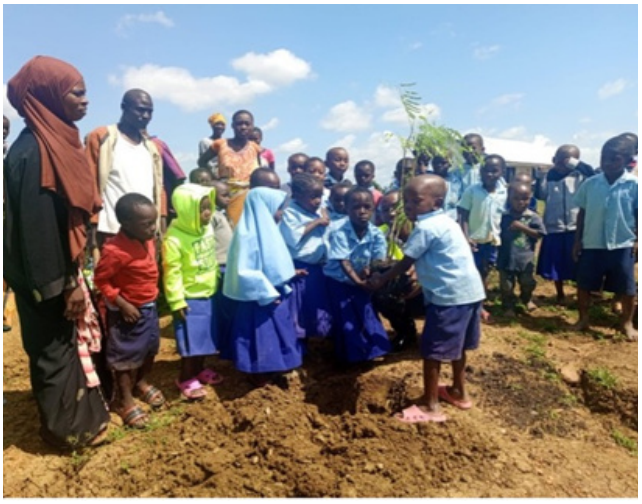
The Haller eco-loo, a proprietary design, is an effective, low-tech way of encouraging basic hygiene practices and improving health. It is a fundamental part of Haller's WASH infrastructure, immediately improving the spread of disease, when combined with hygiene education.

The project commenced on 6th July 2023, and was contracted out to building experts, due to the inherent dangers of construction. It was closely monitored by the Haller Kenya team, almost daily, to ensure a quality build, particularly given the distance. The whole school community were very engaged and involved – with mothers even carrying water for the project.

Constructed to a depth of 35 feet and cement lined to protect the water table, the eco-loo is designed for longevity. Using UV light for sterilisation of odours, it has roof guttering and a water tank, to harvest and store rainwater for handwashing.
The building has also been surrounded by moringa cuttings to provide privacy. This facility, combined with Haller's regular outreach visits, will educate the community children, staff and visiting parents on the importance of good hygiene and the need for sanitation.

The eco-loo was successfully completed, without any issues, on 21st August, and both key dates were marked by a celebratory gathering of community members, and a final planting of 100 indigenous trees. To date, the school rollcall has increased by 50% to 100 pupils and 3 teachers.

-Haller Hygiene Training *"the healthy habits programme"*



-Munnawar School Children

-The completed eco-loo

2. Capacity Building to Maximise Food Production by Smallholder Farmers

Haller Kenya's Demonstration Farm at Mtopanga is an experimental training and research facility, which is fundamental to our ability to support farmers in building resilience and self-sustaining livelihoods locally.

Following 5 seasons of failed rains, the longest drought in 90 years, Kenyans are now facing very high prices for basic food items. The effects of Covid, the war In Ukraine, and economic uncertainties in the region have all combined to create a potential humanitarian catastrophe. Haller Kenya identified the need to pioneer new sustainable agricultural techniques to all demographics by expanding both its infrastructure and training capacity at the Demo Farm to help maximise yields.

The key training concepts focus around two plots: -

- The model 1000m2 plot, the average size of a local family shamba, to demonstrate yields & and diversity of food sources to feed an extended family of 10-12, with a surplus for sale

- A new 500m2 plot, previously funded by Fondation Eagle, seeks to demonstrate the considerable possibilities for growing food and creating healthy, nutritious lifestyles even when a plot is much smaller

Physical Infrastructure

All infrastructure improvements have been completed as follows:

1000m2 plot

- The guttering was installed on all fixed structures to capture every drop of water possible, and a 10,000-litre underground tank was built to store precious rainwater. A further water catchment area to trap condensation and dew was constructed. New beds have been dug using a new bottle irrigation system, which is replicable in the communities
- A new compost & and agrichar soil improvement area has been built with 6 compost demonstration sites to train communities in improving soil health, maximising water retention and improving yields
- 10 poultry houses have been built to house indigenous chickens & guinea fowl, to provide breeding stock & much needed protein in family diets
- Free-range rabbit rearing has been introduced to the programme as a potential food source, with 3 hutches constructed & and rabbit urine used as nutrient-rich fertiliser
- A medicinal plant section has been established, containing turmeric, lemon grass, artemisia, aloe, etc, demonstrating vital medicines and nutritional supplements for those unable to afford pharmaceuticals

500m2 plot

- A second new training plot has been built with the intention of showing urban families what optimal planting can be grown in their backyards, with:
- A range of different beds demonstrating fast-growing crops
- Integrated chicken and fish ponds
- Vertical planting beds to demonstrate maximum impact in minimum space
- A dedicated compost production area
- Beds with high-value crops to grow for income
- A shaded teaching area for training and discussion

Training Capacity

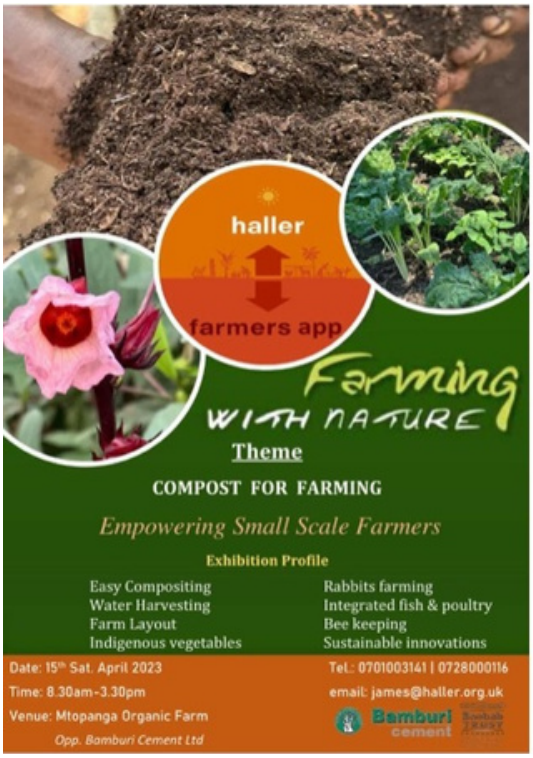
Haller's training programme has continued apace over the past year, helping as many as possible to acquire new climate-smart farming practices to cope with the challenges of climate change. Smallholder farmers face increasing uncertainty in the Horn of Africa and need to be particularly reactive and adaptable to face the unpredictability of weather events - with a recent, unusually short rainy season now quickly followed by a prolonged period of hot, dry weather. There is currently no normality or predictability in local weather patterns, and training has to equip farmers to respond to both droughts – and bursts of high-intensity rainfall where too much rain falls in a very short period, causing destruction unless it can be captured effectively through dam spillways.

The aim was to train as many as possible in adaptive techniques of drought-resistant agriculture and scale Haller's work by incentivising farmers to be generous with the transfer of knowledge. Encouraging, e.g., peer-to-peer transfer of knowledge, training of trainers to spread the techniques, and use of the Haller Farmers app to re-iterate farming practices, as well as providing a library of techniques for those out of the reach of agricultural services.
Looking further afield, we have been able to transfer a programme to the Indonesian island of Nikoi following a two-week intensive residency by Hendry Sianipar.

(see report)

Farmer Training Programme

Fondation Eagle's funding has enabled Haller to train over 900 farmers this year, many of whom are supporting extended families of 10-12, or who will go on to share knowledge and train others. Training has taken place via the Demonstration Farm, the Community Outreach programme, the Health Education programme at schools and the Haller Children's Library.



The Demonstration Farm has been the cornerstone of the training with day tours, impromptu visits, open weekends and scheduled community training, all using the newly installed infrastructure. Open weekends have focussed on empowering small-scale farmers. Bi-monthly farmer training outreach sessions, in-situ at the Haller communities, has introduced and reinforced any new techniques, using their community farm plots for demonstration purposes.

Youth Farming

Whilst the youth farming programme at the Demo Farm has been disrupted following the impact of Covid catch-up at Government schools, Haller has adapted and incorporated it into other aspects of their training schedules.

Over 450 children have been trained over the past year via the Health & Education Outreach and the Children's Library at Nguuni in school tyres culture, vertical planting and individual vegetable plots which potentially will instil life-long skills and help re-engage youth in agriculture.

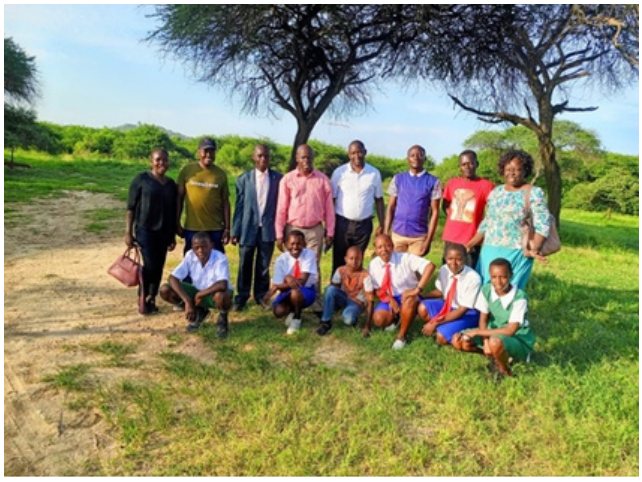
Training of Trainers

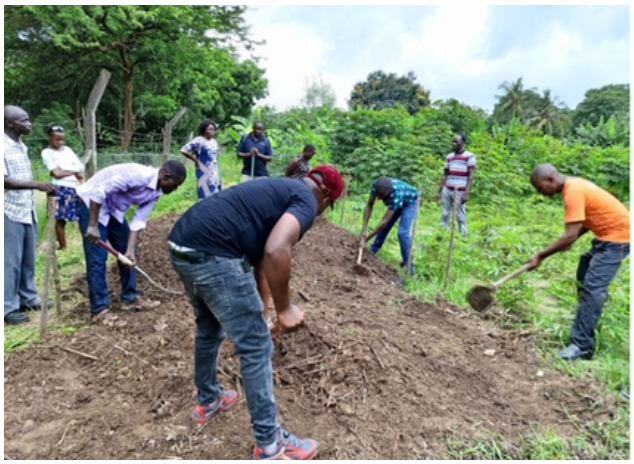
Haller Kenya's initial training programme (see timetable in appendix) with the Osiligi Charity team (FF664) finally took place on 4-8 December 2023. Training couldn't be scheduled until their water infrastructure was complete, and as the contingency being trained were school children and teachers, they were confined by the school holiday timetable.

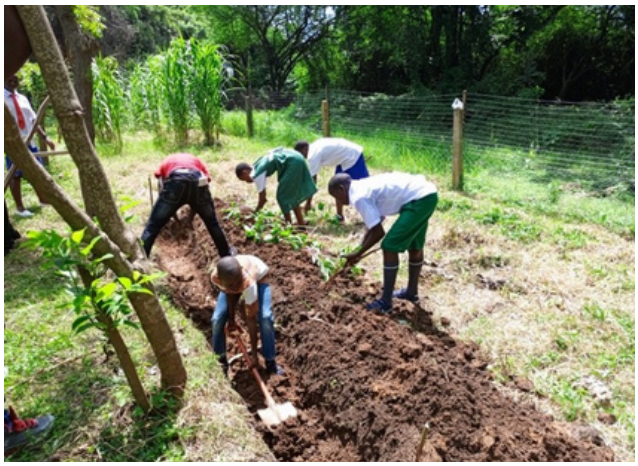
15 attendees, comprising teachers, students, farm supervisors and Osiligi water engineers, had an intensive 5-day training in many aspects of sustainable farming including practical hands-on work. This initial pilot project, if deemed successful, has the capacity for a wider roll-out to other schools in SW Kenya, where Osiligi operates. The aim of the partnership is they eventually acquire the necessary agricultural skills to grow their own food sustainably in dedicated school food-growing plots, to help tackle childhood malnutrition. The water engineers have the potential to scale this knowledge across many other schools as they develop and enhance water infrastructure.

Topics ranged from basic sustainable, organic agricultural practices, the importance of soil fertility, composting & water management to more advanced concepts such as aquaponics, the use of A-frames, alternative energy, the Haller Farmers app and pest & disease control. The 5th day comprised a recap, with a test and the presentation of certificates and the team was joined by two Haller communities, currently receiving intensive training at the Demo Farm. This enabled useful discussion between both groups to spread knowledge.

The consensus was, that the training had proven successful, with great interaction from the visiting group. The goal is that the same cohort returns in 6 months to build upon their knowledge, following practical implementation back at their local schools. A nominal £500 has been withheld from the budget to cover these outstanding training costs.







-Osiligi Team during Training

Beneficiaries	Minimum no.	Maximum no.	Remarks
Sanitation	100	160 over 24 months	Attendance is increasing by 6-8 pupils each term
Farmers Trained	457	4,570	Each with potential extended family of 10-12 who benefit from the increase in food production
Osiligi training of trainers	15	150	Potential to transfer knowledge and roll out to other schools in SW Kenya
Youth Farming	500	800	Community schools & Children's Library
Total	**1072**	**5680**	

Conclusion

Thank you for your support of these two capital-cost projects, which prove vital to our work, delivering health and education services to farmers in the local region. Haller firmly believes that the focus on innovation and training in food production is where we can have the most impact, supporting smallholder farmers and their families to ensure food security in this ever-changing climate.

Ally Davies,
Donor Relations
Ally@haller.org.uk

Appendices

- Budget
- Osiligi Intensive Training Programme 4-8 December 2023

	Budget £	Actual £	Var £
Mtopanga Farmer Training Centre Materials:			
Materials Development of 4 x integrated fish and chicken system/poultry sheds /pond excavation	2,250	2,300	-50
Rabbit Rearing / Chicken houses	1,500	1,600	-100
Irrigation for Nursery/ herbs and spice farming garden	575	650	-75
Development of 500m vegetable plot	1,200	1,500	-300
Trickle irrigation equipment/ pump/piping and guttering	1,600	1,670	-70
Develop urban vegetable gardenSeeds/ layout design/water butts /guttering	900	875	25
2x Hand pumps/100 m corrugated iron piping /water harvesting materials	1,300	1,400	-100
Total	**9,325**	**9,995**	**-670**
Training:			
1x Farmer Training Resource for one year (1)	3,500	3,000	500
2 x Support Trainers for one year	2,800	2,800	0
Quarterly Open Weekends 2023	3,200	3,000	200
Total	**9,500**	**8,800**	**700**
School Sanitation Project - Eco loo:			
Land Preparation/ Materials/ Labour / Transport	4,200	4,400	-200
Community/ Pupil hygiene training	250	250	0
Total	**4,450**	**4,650**	**-200**
Project Management and Evaluation (1)	1,950	1,950	0
Total Budget	**25,225**	**25,395**	**-170**

Notes (1): £500 has been retained to cover the final tranche of training to the Osiligi team. We are currently liaising with Jim Freeth to timetable dates.

The Haller Foundation

Purpose visit:	Farmer Training with Hands-On Experiences at Mtopanga Farm - Bamburi	
Dates:	4.12.2023 - 8.12.2023	
Trainees:		**Kachar Primary School**
	6	2 Teachers | 1 Farm Supervisor | 3 Students
		St. Mary's Secondary
	6	3 Teachers | 1 Farm Supervisor | 3 Students
	3	**Osiligi Engineers**
	15	
Accomodation:	?	

Date	Time	Programe	Trainer
02.12.2023		Depart from Homabay for Mombasa	
03.12.2023		Arrival in Mombasa	
		Mtopanga Farm	
04.12.2023	8.00am	Pick up the Team from xxx to Mtopanga Farm	*Chitu*
		Welcome to our Organic Farm and Training Centre	
Day 1 /5	9.30am	o Meet the Farm Team	
		o Introductions - facilitators | trainees	Michael & James
		o State objectives | Guidelines during the training	
	10.00am	***Tea Break***	
	10.20am	Farm Orientation	Michael
		1. Tour the various areas of the Farm | {Q&A}	
		During the tour, students can feed the fish and rabbits	
		Haller Farmers App	
		1. Introduction to the App | Practical session	
		Download and how to use the App	
	1.00pm	***Lunch Break***	
	2.00pm	Walk around the Farm | Q&A	
	3.00pm	End of Day 1 Training	
		Mtopanga Farm	
05.12.2023		World Soil Day - "Halt soil salinization, boost soil productivity."	
Day 2/5	8.00am	Topics: 1.Agriculture basics	James
		2.Major production & organic farming	
		Students: Create a herb garden at the Backyard garden	Chai
	10.00am	***Tea Break***	

Date	Time	Programe	Trainer
		Mtopanga Farm	
	10.20am	3. Soil & Fertility : soil profile and its components	
	1.00pm	***Lunch Break***	
	2.00pm	4. Composting in depth: Reference The Haller Farmers App	James
	3.00pm	End of Day 2 Trainining	
		Mtopanga Farm | Nguuni Nature Sanctuary	
06.12.2023	8.00am	Topics: 1. Recap	
Day 3 /5		2. Practical on composting procedures	Michael
		Haller Film on Composting	
	10.00am	***Tea Break***	
	10.30am	3. Impacts of composting on soil|crop production	
		4. Plant nutrition	
	1.00pm	***Lunch Break***	
	2.00pm	**Nguuni Nature Sanctuary**	Michael
	-		
	5.00pm	o tour the Educational Centre	Huseina
		o watch our Haller Film; Ecology & Economy	James
		Voted Best Film for People & Planet	
		o student engagement : musical |fun activities	Huseina
		o tour our Nguuni Kipepeo; *see upclose butterflies*	"
		o tour the picnic site; *see the sanctuary's animals upclose*	James
		End Day 3 Trainining	
		Mtopanga Farm	
07.12.2023	8.00am	Recap using the Haller Farmers App as reference	
Day 4/5		Topic: 1. Soil and water management	James
		2. Rain water measure: how to make | use raingauge	
	10.00am	***Tea Break***	
	10.30am	2.Soil erosion and its effects | control	
	1.00pm	***Lunch Break***	
	2.00pm	3. Demonstrate use of A- Frame | practicals	Michael | James
		4. Alternative energy biogas | Solar setup	
	3.00pm	End Day 4 Training	

Date	Time	Programe	Trainer
		Mtopanga Farm	
08.12.2023	8.00am	Topics: 1.Pests and disease control - ref;Haller Farmers App	Michael
Day 5/5		2. Practicals on P&D control	
		Film on pests| disease control	
		Learn how to make your own hibiscus | rosella tea today for your Tea Break	
	10.00am	***Tea Break***	
	10.30am	Basic Farm Record Keeping	
	1.00pm	***Lunch Break***	
	2.00pm	Question | Discussions | Training Test	Michael | James
		Presentation of Certifications	Michael | James
	4.30pm	End of 5-day Farmer Training	

Haller will provide:

1. Tea and lunch meal
2. Stationery
3. Tools for Practical Sessions
4. WiFi for Haller App sesions
5. Transport to Nguuni Nature Sanctuary

Trainers:	**Contact**
James Konde	0717711907
Michael Mjomba	0722390421
Admin.Support:	
Sonal Singh	0721357876