



EROOTS PROGRAMME PHASE 2 COMPREHENSIVE REPORT

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1.0 INTRODUCTION

The second phase of eRoots Programme was implemented by 12 sites in Kenya and Tanzania. The programme, entitled “Home grown school feeding programme” aimed at improving local agricultural production by strengthening the school feeding programme. The programme also sought to increase the capacity of small scale farmers in food production and links to direct market through the school programme.

The project placed emphasis on the use of locally available resources such as land and social capital to create resilient and sustainable food systems. The design incorporated long term projects that would allow schools to sustainably produce food even after the project came to an end; for instance, by planting of fruit trees that would provide fruits to children for many years to come; by setting up vegetable gardens that the schools would continue to maintain; by equipping the schools with irrigation equipment and improvement of food storage facilities. The school farm project was by far one of the most successful development designs to ensure that school feeding would continue to run efficiently in most schools.

Initially, most of the targeted schools had no active school feeding programme for all the children. The nutrition programmes that existed were either supported by Chalice Children and community contribution but it was not enough to feed children every day for the entire school year. In some instances, food was highly rationed so that it could accommodate many children for a long time. eRoots programme responded to these challenges through three major project interventions;

- i. The school farming project which contributed immensely to the school food need by increasing access to food for all the children in the targeted schools.
- ii. Through aggressive sensitization and mobilisation of local communities to support the school feeding programme
- iii. Through the Common Interest Group (CIG) approach whereby 17 groups with members who shared common interests were provided with technical support to increase their production and linked to the school feeding market. It has been found across all sites in Kenya and Tanzania that households that engaged in the eRoots programme through the CIG platform were better off in terms of supporting their families’ basic needs than those that did not irrespective of the geographical location. For instance, the CIG in Mercy care site, which is located in a semi- arid area with less agricultural opportunities performed well since 70% of the group’s members started small businesses and had increased their savings from nothing to

KSh. 120,000 (\$1446 CAD) in the first year and KSh 210, 000 (\$2530 CAD) by the end of 2019. They had the opportunity to be trained, saved regularly and most importantly had access to a ready market. They therefore worked hard with an assurance that they would be able to sell all their food. Their returns were typically higher compared to other farmers.

The program had also some additional benefits like increased access to water, storage facilities and most importantly, contributed to active participation of the local community to their children's schools development agendas.

The broad objectives of the program are:

- Reduced hunger for children most of whom are from poor and vulnerable families. The project's target was to provide at least one hot meal to 18,600 children in 31 schools. These was to be achieved through 2 pathways; complementary school feeding initiative whereby schools with land resource would be supported to cultivate and produce food which would go to support their school feeding programme; and home grown school feeding initiative which targeted schools with limited or no land whereby local famers drawn from Chalice Faith Circles were organised into common interest groups and capacitated to produce food and supply to the school feeding market. The project worked with 15 out of the targeted 17 CIG in Kenya and Tanzania.
- Improved access to Schools for poor children. The project's target was to attain a 20% increase in enrollment across all the targeted schools. This would allow poor and vulnerable children from the community access to basic education. The project was able to achieve about 16% increase in enrollment which is close to the set target of 20%, more details will be provided during the project evaluation.
- Increased learning and performance of children. Reports from sites show remarkable increase in school national exams performance in most of the targeted schools (Table 3) gives details of school performance per school. Generally, this objective was met in nearly all the targeted school.
- Access and support for education especially the most vulnerable. The collective efforts by the parents, Boards of Management, teachers, and donor partners ensured that all children in the 33 targeted schools attended school regularly without any impediments. This was realised in all the targeted schools.

2.0 Programme Performance

The overall achievement of eRoots phase 2 programmes is satisfactory. The programme was designed to directly work with 31 schools and 17 common interest groups to produce food for school feeding. Chalice support was in terms of training, farm inputs, initial cultivation and infrastructure support especially in setting up water tanks for rain water harvesting, fencing and irrigation facilities. The most important outcome of Phase 2 eRoots programme has been increased enrollment of children in the targeted schools. The project worked with 39 schools, supported a total of 15,887 children in 2018 and 19,340 in 2019. Table 1 below gives a breakdown of the children in the targeted schools in 2018 and in 2019.

The programme targeted mostly public schools where majority of Chalice sponsored children attend school. The project aimed at strengthening capacities of schools to produce food for a sustainable school feeding programme.

a) School enrollment

Enrollment has increased steadily in the targeted schools to reach over 19,000 children enrolled and receiving at least one hot meal. The data doesn't capture results of activities undertaken in the fourth quarter which would be reflected in the January-March quarter of the year 2020. This information will be provided in the final evaluation report.

	Site	No. of schools	2018	2019
1	Tumaini	2	419	484
2	Kooje	2	851	949
3	Kangeta	2	633	656
4	Mikinduri	4	2512	2958
5	Neema	4	377	817
6	Pangawe	3	1,661	1,748
7	Songea	5	2009	2065
8	Starehe Girls	1	560	680
9	Mombasa	2	869	1473
10	Baraka	2	1007	1529
11	Saidia	2	1160	1590
12	Rafiki	2	840	1023
13	Mercy Care	2	555	587
14	Mbinga region	7	2435	2781
	Total	39	15,888	19,340

Table 1: Enrolment of children across the sites in the year 2018 and 2019

Summary: Table 1 above details how Eroots programme has become a beacon of hope to many children as over 19,000 have been reached. All the children receive at least one hot meal a day. The project surpassed its target of having approximately 18,600 children accessing one hot meal in the second year of project implementation. There was significant increase of enrolment in Mombasa, Neema and Mikinduri sites. The high numbers is attributed to introduction of school feeding. A total of 6 non-participating schools were also introduced to the school feeding programme through partial assistance (technical advice and guidance from local eRoots Manager) which eventually enabled the schools to rollout the school feeding programme. The schools include Akaiga, Mkono wa Mara, Mikinduri primary school, Kokise Primary school, Chandarua and Mitoronji primary school.



Photo1: Some of the pupils at Miembeni primary school in Songea, Mbinga site enjoying their lunch.

b) Food production in school farms

Most of the targeted schools had land that was previously lying idle; eRoots programme collaborated with schools and the local community to cultivate the land for food production. Reports from sites reveal average production despite the ravaging effects of climate change exhibited by flooding witnessed in most parts of Meru, Kwale, Asembo and Nanyuki region in Kenya; prolonged drought experienced in Morogoro and Mercy care in the year 2018 and unreliable rainfall patterns. The harvest is managed by the

school food committee who also help in coordination of the school feeding programme, mobilisation for labor, and food in times of crisis. Table 2 below details quantities of food produced in some different schools in the year 2018, 2019 and the current year 2020. Since harvesting was ongoing at the time of writing this report, data will be provided at the next reporting period.

Quantity of food produced from eRoots farms before and after eRoots (some of the schools)

Site	Before eRoots	2018	2019	2020 to the end of June
Neema Site, Tanzania	St. Xavier in Mkongo and Chandarua had no school feeding program; Mitoronji school which the site started working with in October 2019 had no school feeding for all the children	Mkongo -3600 kg of maize and 240 kg of beans.	Mkongo -4800 kg and 360 kg beans Chandarua -2880kg and 120 kg of beans Mitoronji had no harvest because programme had just planted a new crop	Mkongo -5040 kg of maize, beans 120 kg Chandarua -3120 kg Mitoronji-4560kg of maize and 120 kg of beans
Starehe Girls, Nairobi, Kenya	Not enough supply of vegetable and eggs from the school farm, most of the food was being bought from the market.	80 kg leafy vegetables daily, continuous supply of tomatoes , 100 litres of milk supplied to the kitchen every day	A total of 23 trays (690 eggs) is supplied to the kitchen three times per week since February 2019; 80 kilogram of vegetable supplied to the kitchen everyday	2000, eggs on a weekly basis; 80 kg of vegetable produced and supplied to the kitchen on a daily basis for school feeding program

Mbinga in Tanzania	0	<p>Lukala- 23 bags of maize, 3 bags of rice and 10 bags of sweet potatoes.</p> <p>Sanangula-16 bags of maize</p> <p>Mateka-40 bags of Maize</p> <p>Mbangamau secondary-20 bags of maize</p> <p>Lazi-45 bags of maize</p>	<p>Lukala-42 bags of maize</p> <p>Sanangula-32 bags of maize</p> <p>Mateka-45 bags of maize</p> <p>Mbangamau secondary-58 bags of maize</p> <p>Lazi-30 bags of maize</p>	<p>Lukala-52 bags of maize</p> <p>Sanangula-39 bags of maize</p> <p>Mateka-27 bags of maize</p> <p>Mbangamau secondary-65 bags of maize</p> <p>Lazi-23 bags of maize</p>
Mikinduri	0	From the common interest group (CIG), 364 bags of maize each weighing 90kgs and 360bags of beans each weighing 90kg harvested.	From the CIG 930 kg of maize and 620 kg of beans harvested during short and long rains of 2019	510 bags of maize each weighing 90kg (45,900 kilos) and 80 bags of beans. Note: beans were negatively impacted by too much rainfall.
Meru Kangeta	0	Kandubai; 170 kg of beans and 496 kg of green cowpeas leaves Rikiau-270 kg beans and 1260 kg of maize produced enough to support the school for 45days.	Kandubai:1350 kg of maize and 750 kg of beans and 3,960 kg of maize and 1010 kg of beans from Rikiau school farm. Daily vegetables	

			supplied from the school gardens	
Mercy Care	0	40 goats at CIG farms; Kasyongo School provided with 10 goats	75 goats at CIG farms and 20 goats at Kasyongo Primary School	

Table2: quantities of food produced from the school farm in 2018 , 2019 and 2020.

Schools like Mateka and Kagugu recorded drastic reduction of yield in 2020 .This is because of theft experienced in the area. When schools closed due to COVID 19 pandemic, security at the schools was missing due to government warnings that all should stay at home. There were many cases of insecurity in Mbinga due to lack of income generating activities and menial jobs brought about by small business closures. However, there was a steady increase of yield in Mbangamau secondary, Lukala and Mbangamau primary schools. Mpepai primary school, which was participating for the first time also recorded very good yield of 70 bags(120kg each) which will support school feeding until the next season. Schools in Kenya were yet to harvest at the time of this report, the data will be reported in the next reporting period.

c) School enrolment and performance

Results from targeted schools confirm that school feeding has direct impact on school performance. The table below shows improved school performance in the National Exams in many of the targeted schools. The table also shows increase in enrollment in the schools.

School	Performance	Enrollment
Highway primary school	Improved from 226.71 in 2018 to 228 in 2019	510 to 760 in Gilgil highway primary school
Township primary school	Improved from 241 in 2018 to 268 in 2019	For the last two year, the enrolment for Township increased from 650 to 830
Michogomone	Term 1 mean grade = 211.27 Term 2 mean grade = 219.62 Term 3 mean grade = 224.69	Increased from 270 to 290
Kamujine Primary school	203 in 2017, 207 in 2018 to 284 in	Increased from 400 in 2018

	2019	to 475 in 2019
Mikinduri Primary	270 in 2018 to 310 in 2019	1200 children in 2018 to 1400 children in 2019
St. Joseph secondary school	Mean grade improved from 2.690 in 2018 to 3.00 in 2019	Increased from 167 to 194
Nelson Mandela	In 2018, 88 final form 4 students passed to go for higher studies, the numbers of students who passed increased in 2019 to 123.	Increased from 595 in 2018 to 670 in 2019
Mateka	In 2018, 42 final students passed to go for higher studies while in 2019 35 of them passed.	Increased from 515 in 2018 to 532 in 2019
Pangawe	In 2018, 40 out of 50 final students passed to go to secondary school. The number increased in 2019 to 73 out of 77.	Increased from 661 in 2018 to 670 in 2019
Miurine	The Kenya National Examination Mean score Increased from 286 in 2018 to 309 in 2019	Increased from 580 in 2018 to 618 in 2019
Akaiga	National Exams scores increased from 209 in 2018 to 240 in 2019	Increase from 382 in 2018 to 465 in 2019
Chugu	Mean score dropped from 228 to 198 (This is because 5 students that did not attend classes through the whole year due to personal challenges sat for the national exams and scored extremely poor grades bringing down the class average)	Increased from 486 in 2018 to 505 in 2019
Kandubai	The Mean score was 218.58 in 2018 and 201.64 in 2019. This was mainly attributed to transfers of	Increased from 320 in 2018 to 324 in 2019

	school principals and teachers which affected the examination class.	
Rikiau	The mean score was 172.68 in 2018 and 144.5 in 2019. Many children with higher average moved to a new school with better infrastructure. They also lost teachers to the school	Enrollment dropped from 336 to 258 (A lot of students transferred out of the school to a new school nearer their home.)
Aduoyo	Mean score was 175 and increased to 250 in 2019	Increased from 362 to 447 in 2019
Kasyongo	Mean score increased from 276 to 279.6	Increased from 278 in 2018 to 280 in 2019
Muthaiga	Mean score 232 in 2018 to 268 in 2019	From 490 in 2018 to 453 in 2019.

Table 3; School performance and enrolment of some of the targeted schools

d) Common Interest Groups (CIG)

ERoots programme worked with 15 CIG in the last 2 years. The programme offered training and input subsidy to allow the farmers to increase their food production and consequently connect them to school feeding market. Most Chalice beneficiaries primarily rely on small scale farming for food and income. But local markets are dominated by cartels who normally buy food from farmers at throw away price and then hoard and sell food at higher prices during low season. For the longest time, farmers have struggled to eliminate these brokers but it has proved difficult and almost impossible for small scale producers. The common interest group initiative created a platform whereby the members were given opportunity to collectively sell their produce to the school feeding market. The common interest group initiative led to 2 significant changes:

- i. It led to increased food production as recorded in most sites (Table 4). Even though the farmers had various challenges mostly because of varying climatic patterns, they recorded increased food production, thus improving their household food security situation.
- ii. This project also provided a platform for farmers to pool and sell their produce collectively, giving them better bargaining power and better prices than the previous years. They therefore earned more than they had before, and could save for their children's education and for family.

During the past two years the eRoots programme, has contributed significantly to the household incomes.



Photo 2: CIG members training on good agronomic practices at Kooje Subsite-Meru demonstration plot



Photo 3; Parents weeding maize at Mkongo school farm.

There has also been a lot of growth witnessed in community response towards supporting the school initiative. Although this requires continuous sensitization and mobilisation which was carried out by the sites, the programme was able to mobilise other important resources for school feeding such as payment

of cooks, firewood and food donation during initial planting season that enabled the school feeding programme to run smoothly.



Photo 4: Parents at Chandarua primary school displaying food harvested from the school farm

3.0 OTHER ACTIVITIES

ERoots Programme introduced alternative ways of supporting school feeding in sites that are located in low agriculture potential areas like Mercy Care and Pangawe and in sites with limited land like Starehe girls and Chugu primary school. Some of the enterprises introduced include, poultry farming in Starehe Girls, goat keeping in Mercy Care, bee keeping in Pangawe subsite of Mbinga site and vegetable production using greenhouse technology in Chugu, Township, Muthaiga and STG primary schools.

a) Bee keeping in Pangawe subsite, Mbinga

Nelson Mandela secondary school is a public day secondary school that is important to Chalice because it takes most of the Chalice sponsored children in Pangawe sub site who graduate from primary school. Feeding of all the children in the school was always a challenge because they relied on community donation which is erratic. In an effort to diversify the means of food production, eRoots programme established bee hives in the rich natural forest adjacent to Nelson Mandela secondary school. From October 2019, a total of 80 litres of honey were harvested from the 15 bee hives, the honey was sold at Tsh. 720,000 (\$400 CAD) and the money used to purchase 600kg of maize that supplemented the school feeding programme. Bee keeping is less labour intensive and very ecologically friendly. The school has a

plan to expand the project in the forest that was initially underutilised so that it can continue supporting the school food needs.



Photo 5; packaged honey at Nelson Mandela secondary school ready for sale

b) Goat keeping in Mercy Care

ERoots programme interventions are site specific because the schools are located in different locations that have different climatic, socioeconomic, and physical conditions. Kasyongo primary school in Mercy Care for instance is located in a semi- arid area of Kitui. Agricultural production in this area is hampered by poor soils and constant drought experienced in the area. It was necessary to come up with an enterprise that could adapt well to the dry weather conditions. ERoots programme engaged the local community in developing an inexpensive and appropriate enterprise focussing more on what already existed in the area. The site settled on local goat keeping since goats are hardy and have a good market in the area. The site, through Chalice supported the schools and the CIG with initial 10 and 40 local goats respectively. The 40 goats were distributed among the common interest group members - each member getting 2 goats each. The local goat keeping bore good result since a total of 75 goats have been recorded from initial 40 goats donated to the CIG while Kasyongo primary recorded 20 from 10 donated.



Photo 6; Pupils and some teachers at Kasyongo primary school display their goats.

c) Poultry farming in Starehe Girls

Poultry production in Starehe Girls is also one of the unique enterprises away from crop production that was introduced for STG under eRoots Phase 2 programme. The school has other ongoing food production enterprises such as vegetable production through irrigation, horticulture production using green houses, dairy production and fish farming, majorly supported by Chalice. The decision on poultry project was based on the need of strengthening the girl's nutrition by incorporating a cheaper source of rich protein other than milk that could also earn the school some income owing to its proximity to Kiambu and Nairobi markets. The project was initiated by the eRoots program, starting with rehabilitation and reconstruction of an old farm store into a poultry house. The project started off with 600 birds but the house has a capacity to accommodate up to 1200 birds. Through the project, the girls eat eggs twice a week during the entire school year; manure from the birds was also intensively used for vegetable production.



Photo7; Old storage structure that was earmarked for poultry farming



Photo 9: Final poultry house after renovation and fencing

Old structure renovated for poultry production, the area was also fenced to prevent predators accessing the poultry house.



Photo 10; Poultry project at Starehe girls centre with a capacity of 600 eggs daily; the 680 girls take eggs twice a week, eggs are sold during holidays when schools close.

d) Fencing and establishment of vegetable gardens

The School feeding projects established under eRoots programme have a strong nutrition component owing to the nutrition programme in Chalice that children are provided with balanced and nutritious food as much as possible. One way this was achieved in eRoots programme was through supporting the targeted schools with setting up vegetable gardens. These required fencing, irrigation equipment, as well as training of the 4k club members who were actively involved in watering and tending the gardens. Vegetable gardens have been established in 27 schools, and enabled the schools to add vegetables to the food prepared for children. About 10 schools were unable to set up vegetable gardens mainly due lack of sufficient water to support food preparation and irrigation, limited space for example at St. Mary's Bangladesh in Mombasa, and lack of fence and security in the schools especially those near slums like Gilgil Highway. The vegetable gardens were not only important in supporting the nutrition of the children but also served as outside classroom training for the pupils to learn aspects of crop production.



Photo 11. Recently fenced Kagugu primary school garden



Photo 12; Starehe Girls' agriculture club - known as world changers participating in weeding of their school vegetable garden.

e) Improvement of storage facilities

Post-harvest losses caused by lack of proper storage facilities contribute to food insecurity in most schools and households. At the start of eRoots programme, most schools reported lack of proper storage

and cooking facilities. Some of the schools could not mobilise for food from the parents especially at the start of the programme when eRoots just started planting. This is because they lacked storage facilities and this was cited as one of the reasons they had not started any form of school feeding programme. Since construction would require a significant amount of funds that was not budgeted for in the programme, we sought other creative ways of solving the problem locally with the help of the community. In some schools like Kagugu, this required renovation of an old structure by putting a new door, ventilation and plastering; others like in Mbangamau Primary school required roofing, windows and door (see photos below). The programme supported all the 31 targeted schools with proper storage bags. This has allowed schools to store their food after harvest and allowed them to receive food from the community members whenever they are able to give without worrying about storage.



Photo 14; storage facility at Mbangamau primary school before renovation



Photo 15: storage facility at Mbangamau primary school after renovation.

f) Tree planting

Tree planting was carried out in all the targeted schools. Most of the schools have reached 60% of the target, which was to plant at least 200 trees of three different varieties in every school. Trees offer multiple benefits as they play an important role in environmental conservation - soil and water conservation, Fruit trees will produce fruits that will improve the children nutrition as well as provide fuel for food preparation. Tree planting was actively done by the 4K club members who were assigned trees to take care of by weeding, watering and pruning. Most of the fruit trees will start producing by the end of 2020. Schools in Pangawe, Asembo and Saidia sites have done extremely well in the tree planting initiative. Managing tree seedling during school holidays was challenging as most children come from very far. In some schools located close to urban centres, they faced the challenge of trespass and stray animals feeding on the goats, but sites have looked for ways in ensuring that the trees planted are surviving to maturity.



Photo 16; photo showing mango tree growing at Pangawe primary school

g) Water projects

An assessment carried out at the beginning of eRoots project revealed that most schools experience water shortage through most parts of the year except during rainy season - which is erratic. Water is one of the key components in agricultural production without which food production and school feeding would not be possible. Chalice, through eRoots programme, has supported schools to increase access to water for irrigation, cooking, drinking and sanitation. Water projects normally require a significant amount of funding, but through eRoots programme, local creative solutions were sought to address the issue of

water scarcity. These included rain water harvesting technologies which involved tapping into to the existing large school roof surfaces by harnessing of rain water using gutters. Some schools were supported with drip irrigation equipment that enabled them to produce vegetable without necessarily relying on production during the rainfall season. This was achieved in most schools as tabulated below:

	Sponsor Site	Water projects
	Mercy Care	Four 10,000 litre water tanks installed at Pangawe and Nelson Mandela secondary school; Two in each school complete with gutters.
	Mbinga Pangawe	10,000 litre water tanks installed at Pangawe and Nelson Mandela secondary school
	Mbinga and Mbangamau	10 water tanks (48000 litres) have been installed in all sub sites and distributed as follows; Mateka primary 15,000 litres, Mbambi Parish 5,000 litres, Mbambi Primary 10,000 litres, Lazi primary 5,000 litres, Kagugu Primary 3,000 litres and Mbangamao Primary school 5,000 litres.
	Mbinga ML/BL/MS	Four water tanks (20,000 litres) have been installed Msamala day sec school, Lukala sec school, Miembeni primary school and Bombambili sec school respectively Water pump and 5,000 litre water tank Installed at Making'inda boys hostel in Msamala to support irrigation of vegetable garden that supplied fresh vegetable to the needy boys housed at the hostel.
		Piping and renovation of intake at Mateka Primary school
	Mikinduri	Installation of drip kit was successfully done in Miurene and Kamujine by Amiran company accredited agent in Meru. Amiran is the leading agro-irrigation company with quality services in the country. Besides installation, they went further to train the 4k club,

Kangeta	Installation of drip irrigation kits at Rikiau and Kandubai Primary Schools
Tumaini	Installation of drip irrigation and connection of water to the vegetable garden at Michogomone and St. Joseph Schools
Baraka-Muthaiga	Renovation of green house and installation of driplines
Chugu	Repair of green house and installation of irrigation system

Table 5: some of the water projects established across the sites



Photo 17 ; Before photo at Kasyongo primary school showing children emptying water they have brought from home in the small school tank for food preparation



Photo 18; shows 2 water tanks installed at Kasyongo Primary School - children lining up to wash hands before their lunch.



Photo 19; Miurine primary schools 4K club member planting kales, spinach and cowpeas in their garden

h) 4 K CLUB MEMBERS

4 k club refers to the school agricultural club consisting of about 25-40 pupils who are interested in agriculture. The programme used this platform to teach and practically train the pupils on different aspects of food production and environmental conservation. The main objective was to build their capacity so that they can understand the science behind the food they eat and create an interest in agriculture for food production as well as a significant income earner. The club also aimed at getting children to love and appreciate nature; and to keep them updated on current issues especially climate change and its impact on African agricultural and forested landscapes. The 4 K club members have been trained on different topics by the Local eRoots managers. Reports from sites show commendable response from children involved in the club some of whom have also started small gardens at home.





Photo 20; pupils at Gilgil Township making their seed beds and displaying potatoes harvested



Photo21: 4 k club members in Mateka primary school putting mulch on their vegetable garden

4.0 SUSTAINABILITY

The sustainability of eRoots programme can be viewed through different lenses; (1)**Institutionally** in terms of systems laid down that will continue after eRoots programme in a school for example the Common Interest Groups (CIG), school food committees, market linkages etc. (2) **Economically** in terms of the ability of schools to continue producing food to support the school feeding programme for the current and future generation (3) **Infrastructure** laid down such as water projects that will continue supporting the schools, (4) **Projects** like tree planting that will start bearing fruits after three years and continue supporting the schools etc. The eRoots programme has been deliberate in setting aside 30 % of produce to support future food production (this has not been achieved in some schools especially those affected by the changing weather conditions as well as those with new and huge numbers of new enrolments – a success in its own right). The programme has however strived to strengthen the sustainability plans in the schools especially as the programme has spilled over to 2020. Sites will have the opportunity to put into action their plans post COVID and one year down the line, Kenyan sites will be evaluated to document progress. The program has strongly emphasize soil and water conservation during trainings and carried out demonstrations to enhance soil fertility that has been a major stumbling block to food production in Africa. The technologies introduced have been well receive and adapted.



Photo 22: Pupils at Chugu primary school inside their greenhouse planted with kales and on the left, Kinoti, the Local eRoots manager of Tumaini subsite visit to St. Joseph vegetable garden planted with cabbage

Challenges	Recommendation/ Mitigation taken
Unreliable weather patters	Weather changes have brought a lot of uncertainties in food production. This is directly linked to effects of climate change. Mombasa, Asembo and Meru sites were significantly affected by floods experienced in the last quarter of 2019. Discussions are underway on possible ways of insuring crops against floods/droughts in the school farms. Embracing climate smart technologies that are applicable at farm level to mitigate the effects of climate change is crucial for survival of farmers. <i>Diversification to avoid reliance on one stream of food production is being implemented in some schools eg. by introduction of other livestock projects, bee keeping and green house technology.</i>
In Kenya poor food prices that affected the CIG's after an influx of imported maize in Kenya in 2018 and in Tanzania the President restricted exportation of maize out of the country, leading to serious price fluctuations that affected the CIG as sites were comparing the food prices with the current market price.	Working with schools on fixed prices before production to protect the farmers against losses.
eRoots Staff changes that affected programme implementation in Baraka, Neema and Songea region of Mbinga Site	Discussions are ongoing with the affected sites on getting a more reliable qualified staff that can be retained for longer periods.
Reluctance by some community members to offer free labor during food production and general support of the school feeding programme especially in Kagugu and Mbangamau in Tanzania	With continued sensitization meetings, the sites are looking for ways to have more involvement with area chief and local priests in finding a lasting solution. Confident we can overcome this issue.

<p>COVID 19 Pandemic; The spread of the virus in Kenya and Tanzania led to closure of schools in March. Stringent measures put in place across the countries prevented group meetings and social gathering. This affected the eRoots project as it was not possible to mobilise parents to provide labor especially during harvesting in Tanzania, weeding in Asembo, Meru and Mombasa. These affected overall production</p>	<p>Some sites were forced to look for funds to pay few people who came in rotation to assist in the farm. Long term solutions need to be sought since the pandemic is still here, and for future related emergencies. Since this was something new and unexpected globally, this will be tabled for discussions once activities resume.</p>
<p>Some factors could not be made constant like head teachers and some teachers transfers who were directly involved in the feeding program. Not all stakeholders gave full support to the feeding program</p>	<p>Continue with sensitization meetings with the schools and stakeholders.</p>

5.0 LESSONS LEARNT:

- School management is one key determinant factor of the success of the school feeding programme. Experience across the region revealed that the programme was successful where the school head teachers are supportive towards the school feeding programme. (It was found that most female headed schools performed well in the project). School leadership therefore plays a big role in ensuring smooth running of the programme as they actively engage in mobilising for resources and other logistical support necessary for the smooth running of the school feeding. Even though there is a school food committee, some major decisions are made by the head teacher. In some schools, that changed school head teachers within the project implementation, like schools in Meru, the change directly affected the feeding programme and later on a significant drop of school attendance and performance. Strong school food committees are critical to the success of the school feeding program and strong involvement of each school's Board of Directors can make this happen so that changes in school head teachers do not negatively impact the program.

- Government policy preventing school management to ask parents for any form of monetary contribution towards the school feeding programme. This was a major stumbling block in rolling out the feeding programme in some schools because Chalice does not fund 100% school feeding - the programme design allowed communities to make certain investments such as paying for the cooks, firewood, and in some instances where the food produced in the schools was not enough, we could call for a small contribution from parents. Getting the support from parents was challenging at some schools but it is critical since the programme was designed to be participatory.
- Management of 30% of surplus produce **for sustainability of the project** was left to the school food committee who did not strictly adhere to it. This became a challenge at some schools. In future, sites will be required to strictly follow up and report on the 30% produce set aside for the project sustainability in each school.
- The Common Interest Group (CIG) model has proven to be successful in Chalice sites. This is attributed to the close monitoring and support the CIG members received from the sites. The support included training, follow up, market linkage and also mandatory savings schemes which was put in place for all the members. By the end of the project, the common interest group members have been more active in production and were found to be food secure and able to take care of their family needs.

6.0 CONCLUSION

This report clearly shows the life changing impact of eRoots programme which is in line with Chalice theory of change at the child, family and community levels. Although most schools are currently closed due to the outbreak of the COVID -19 pandemic, mechanisms have been put in place across the sites to preserve the available food so that the school feeding programme resumes when schools reopen.

We send our gratitude to Chalice and its supporters for all their generosity and it is our sincere hope that the programme will be up scaled to Ghana and Zambia, so that their Schools and communities can also share in the benefits.