The M&E was undertaken in Machakos county; Central and Kalama divisions. This was done at the Muslim Group whose project was established at township primary school. They established a dairy goat unit and Islamic farming. In Kalama division, the M&E was undertaken at ABC Church, three primary schools and three individual homes. This was with an aim of finding out how the participants are replicating to what was taught to them during the trainings. It was also a session to find out if the community’s livelihoods have been improved. It was a fulfilling exercise as reported below
1. MACHAKOS MUSLIM GROUP

The group made a purchase of seven dairy goats in total; one he goat five she goats and a kid. The dairy goats appeared to be active and in a healthy condition. They are of two different breeds, torgen bag and the Kenyan Alpine. All of them have been given named. Each dairy goat has a record that has detailed information about the goat. This gives information from when the goat was born, its breed, weight and its daily behavior. These records have been helpful to trace of any...
sicknesses or abnormalities detected during the day. The caretaker understands all the goats well and was able to identify each byname and gave a brief history of each.

Since these goats are highbred, extra care is being undertaken so that they are not exposed to diseases. The goats were however sick during the last week but were treated on 28th March 2015. They were injected against pneumonia and given multivitamin. The drugs used included Tylosin and Albendazo. The goats have however improved and were feeding well.

**The dairy goats and their identity**

**Grace Munai** - She was born on 11th December 2010 at 3.5kg. Her breed is Kenyan Alpine. She was bought when in calf with twins. She is expected to deliver before end of this month.
Havu the big—She was born on 3rd May 2012 weighing 4.3kg. She was bought with a kid who is two months old. Her name is Kamwe the beautiful. The kid is fully breastfeeding. Havu was served on 28th March 2015.

Kamwe the beautiful
**Katheu**—was born on 2nd January 2014 at 3.5 kg. Her breed is torgen bag. She is in calf, was served on 19th March 2015. **Beberu** is the one that served her.

**Kavatha Twin 2**- She was born on 4th January 2014 weighing 3.5kg. Her breed is Kenya Alpine. She was bought when in gestation and is expected to kid before the end of this month of April.
- **Karosi**- This was bought and served on 23rd March 2015

![Image of a goat](image)

- **Mfalme**—He was born on 25th February 2009 weighing 4.2 kgs. He is a **Kenya Alpine**. This is the only he goat that the group purchased with a purpose of serving all the other she goats.

The shed for the goat had been kept very clean, each dairy goat its own compartment with a door that is lockable. The goats are allowed to grace out in the field on the school compound during the day and returned in the shed at night.

The care taker is a day scholar; she arrives very early in the morning and leaves late in the evening.
**ISMAMIC FARMING**

The group also established an Islamic farming plot at the school. This is being managed by the special unit of the school. On the farm, they have grown spinach, onions, egg plants, bell peppers and kales. The plot has been well maintained. The teacher in charge involves the special unit students in watering, harvesting and even removal of the weeds. This has helped the students to gain an additional practical skill which will help them in future.

The teacher began selling the vegetables in the month of February and so far she has 2600 ksh as savings from the sale. She says that the market is not a problem since she sells them to the teachers at the school.

The group was in the process of expanding the plot to plant more vegetables and they were using prisoners from the GK prison to undertake the exercise. This has led to savings on the amount of money that is spent on labor.
Islamic farming and expansion of the plot

Mr. Omar showing the plant they use as pesticide
INTERVIEW WITH THE SCHOOL HEAD TEACHER

We had an extensive interview with the school head teacher Mr. Sammy Mwale who was much exited to talk to us. He first of all appreciated that the project had been set up in his school by the Muslim group and retaliated that he is seeing the benefits.

“Initially during science lessons, the students were not able to go out and see how animals looked like” he said. “But now I have talked to all science teachers to allow the students to go and see how the goats look like and how they are taken care of and this has been possible because of this project’, he continued.

He also mentioned that he had noticed a special interest from the children in the special school towards the dairy goats. Every morning they will go near the shed to assist the care taker to take them out of the shed and even feed them. He said this is the opportunity he realizes he had been denying the children but now they have an opportunity of learning an extra skill. He was particularly happy because the special children were developing the skill to taking care of the goats and he was certain that they will get employment after they leave the school.“I was opening my office today and a standard four girl called Asma Hani came to me exited telling me that the cook had milked and made tea using goat milk !The tea was so sweet and am so happy I tasted the milk!”These were Mr. Male’s remarks.
The student had tasted the goat milk for the first time and she had expressed her pleasure to the teacher. The head teacher vowed to ensure that all the students will at least take tea with Milk goat. He mentioned that the milk was very nutritious and with a healthy school, he was sure that the schools results would also improve.
“I and my teachers no longer go to the Market to buy vegetables; we get them fresh from the farm he added. He was further impressed that his staff is feeding on vegetables that they can trust; those that are not grown with untreated sewage. The teachers no longer leave school before time to go to the Market he remarked. This has led to an improved time management and I believe it will reflect positively to the student’s performance. He concluded.
CHALLENGES

Despite the success that the group has enjoyed, they have also faced some challenges. The members noted that since they bought the goats, many dogs have been noticed in the school compound. Security also is an issue but they are planning to reinforce the fence and employ a farm manager who will stay on the compound.

It has not been easily to control the pupils during break time since they all want to play with the goats.
**FUTURE PLANS**

One thing that came out clearly about this group is that they are strategic and visionaries. They have done the market research and realized that they can supply vegetables to supermarkets in Machakos town. This has made them to expand their vegetable garden so that they can produce more since the demand is high. They will also be setting up another farm at a different location of the school to plant more vegetables.

They have future plans of planting bananas at end of their watering point since a lot of water is going to waste in that area.

They are also waiting for the dairy goats to kid and supply the milk not only to the school but to the outside market.

2. **AFRICAN BROTHER HOOD CHURCH – KALAMA**

**BEE KEEPING**

The group purchased eight bee hives. These are positioned at the church compound. One of the hives have attracted bees. The other seven are still empty.
Mr. Joseph Mungutia an extension officer from the ministry of agriculture promised to use other ways to ensure that the bees get into the seven bee hives. He pledged to support the team fully after the project cycle ends.

**TREE NURSERY ESTABLISHMENT**

The group has established a nursery of about 1000 tree seedlings. The seeds that were used in planting were collected from the group member’s homes. Paw paw seedlings are 300 in number, Yellow passion seedlings are 100 and blue gum seedlings are 700 in number.

The pawpaw seedlings are ready to be sold and the group mentioned that they will sell them at the church and also the head teacher of a neighboring school promised to purchase most of them.

The group has collected a lot of soil from the forest and this is what they use at the nursery.

They have future plans of expanding the nursery shed so that by September during the next rainy season, they want to have 10,000 tree seedlings of different species.
Church women assisting in the daily care of the nursery
3. KYANGULI PRIMARY SCHOOL

KOEE trained two teachers from this school. The head teacher Mrs. Grace noted that the training had been of great help to them. After learning on issue to do with climate change and food security, the school established a kitchen garden where they planted indigenous vegetables (kunde) and kales. The kunde was harvested and prepared for the students. Sukuma was sold to the teachers and the school has a saving of 1048ksh. Some parents who came to the school and did not have vegetables at home, they were given but trained on how to start theirs at their homes.
The teacher has sensitized parents, teachers and students on the importance of environmental conservation and is following up with the pupils to establish what is being done at home. She recalled that one of the students told her that he has planted a banana in their bathroom so that it can get enough water.

She planted 300 mango trees immediately after the first session of training in December but because of the harsh drought that they experienced, only 20% survived. She has however planted 170 more trees and is expecting that they will survive. She mentioned that she involves the pupils in the planting and taking care of the trees so that they can learn and practice the same in their homes.
4. **MUUMANDU PRIMARY SCHOOL**

Two teachers underwent the TOTs training that was held in Machakos County. After the training, the school planted 80 trees. Arrow roots were planted last year in October and they will be ready for harvesting in May 2015. The school has also established composting which is still in progress of being ready to be used at the farm. Since the rainy season is here, the school has prepared their green house to plant vegetables. We would make a follow up to ensure that the school is practicing farming in God's way to reduce on the amount of water that will be used.

**FUTURE PLANS**

The school administration has purchased 10000 liters water tank and this will be put on one of the roofs to for purposes of water harvesting.
Composting in progress

Arrow roots grown at the school farm
5. MBALUKU PRIMARY SCHOOL

The school which is located in Kalama gave us two teachers who underwent training of TOTS. The teachers have done quite a remarkable work considering that the school compound is very small. During the visit we met with Mr. Patrick and some students preparing portable sac vegetable garden. The students were assisting in the planting of Kales and also watering them. Some other students were watering tree seedlings that had just been planted; they took 100 tree seedlings from the public campaign that was held in Muumandu primary school.

Immediately after the first session of the training, the teachers planted 150 tree seedlings and there was 100% germination. Since the trees were planted during very dry season, they were mulched and the teachers put used water bottles in every hole to act as drip irrigation.
Gardening

The school has established a very small garden in front of the classes and has practiced Farming in Gods way. On the piece of farm, kales have been grown. The teachers indicated that these kales are cooked for the teachers during lunch meals. All the parents have also been trained on establishing FGW and tree planting at their homes and already 50 of them have established tree nurseries.

FUTURE PLANS

The school plans to plant more trees outside the school fence so that they can have more shed for the children and also for aesthetic nature.

Mr. Patrick Mulinge one of the teachers indicated that he has done a lot at his home farm; he has planted 200 paw paws, established 10 bee hives, onions and FGW. He said that he is happy because he does not buy vegetables but get them fresh from his farm. He added that he sells onions and from his last sale he made 20,000ksh.
Teacher Grace from the same schools said that she has planted 50 trees at her home and is also practicing FGW. She said that the harvest of vegetables from her garden has been impressive and her husband was so happy, he promised to do the same on her maize farm.

PROGRESS OF OTHER PARTICIPANTS WHO WERE TRAINED AS TOTS

a) Mrs. Peninah

She is one of the members of ABC Kyamunyu. Apart from helping with the church project that KOEE gave some seed fund, she has also been improving her livelihood at her home. After the training, she dug trenches along her farm to direct the...
little rain water into the farm. She also planted 65 bananas and 44 survived. She is also practicing agro forestry and she said that those leaves from the trees in her farm will be used for feeding her goats. She has also planted some cassava and pumpkin.

She harvested some of the cassavas during the visit and was served to eat while still raw.

*Some of the banana plantation and the pumpkin plant*
Mrs. Peninah showing off her cassava harvest
b) Mrs. Rose

Despite being an active member of ABC Kyamunyu, she has managed to do remarkable work at her home. During the training at the ATC Machakos; she purchased 3 tissue bananas from the institution to plant at her home. Two of them survived the long drought that was experienced in the area. Additionally, she planted 50 gravelia trees but 34 survived.

She has grown lots of Cassavas and she said that she now values them more because she learned of its importance during the training. She also harvested some of the cassavas during the visit at her home.
Mrs. Rose looking keenly as her cassavas is being harvested
c) Mr. Henry Musyoka

He is the definition of a hardworking and focused person. Henry attended the consultative meetings and some of the training sessions that we held in Machakos county. He was a representative of Mania WRUA which is doing well especially in training the youth. During the trainings, he was very keen on what the trainer passing across and he would frequently ask questions. It was noticeable that he always came earlier than the rest of the participants. This was impressive to the trainers. His keen interest in the project has translated into a massive improvement on how he is doing his farming.

During our visit to his farm, Mr. Henry looked ecstatic to see us. He had been expecting us to visit him and be able to see what he is doing. He owns a four acre farm which is located next to river Mwania and next to the Machakos Makueni road. His location has given him lots of advantages since he gets his water from the river and he can easily transport his goods to the market in Machakos town. He uses the water from the river by pumping into water tanks located on his farm to undertake irrigation. He pointed out that he only uses 50ksh to purchase oil that will run the generator to have enough
water for irrigation. He added that he only uses manure on his farm since they make the crops to last longer on the farm after harvesting and the yield is higher as compared when you use fertilizer.

Mr. Henry reflected that before the training, he had his land but was not committed to it; he could frequently visit his mother to borrow food from her. But the training opened him up. He now understands the importance of commitment to his farm.

On his farm he has planted different types of vegetables; both indigenous and exotic. He said that through his experience he makes more money from the indigenous vegetables than the exotic.

**Cow piece (kunde)**-He has been selling the Kunde for one and a half months and he makes 1000ksh per week. In total he has made 6,000ksh. He has intercropped the kunde with Dhania. He said that his Dhania is an improved species thus does not flower early. The Dhania are also used as pest repellant on his farm thus does not use pesticides to kill the pests. He has made close to 6000ksh from the sale of the Dhania in the past one and a half months.
**Pumpkins** - Mr. Henry has sold both the pumpkin leaves and the fruits themselves. He estimated that he has sold 20 fruits at 100ksh per each. This means he has been able to make a profit of 2000ksh. He was not able to estimate how much he made from the leaves but he revealed that people love them and he has sold a lot.

![Mr. Henry showing off one of his pumpkins](image)

**Tomatoes** - The type of tomatoes grown on his farm were quite attractive to the eyes. Mr Henry disclosed that he has been planting tomatoes at different stages so that he could be in the market throughout the year. This was true since we saw different plots with different sizes and ages of tomatoes. Some were in the nursery, others had begun flowering,
some were at the initial stage of fruiting and he was harvesting others. The size of the tomatoes was very big. This has brought him a good sale of 60,000ksh and from all this he had made a profit of 15,000ksh.
Cabbages-These has been planted in several plots on the farm and they were ready for harvest. He had sold about 1000ksh and was optimistic that he will get market for them. He took us the different plots and showed us an area where he had undertaken mulching. The cabbages were greener and bigger as compared to the others. He vowed to increase FGW on the other parts of the farm.
**Chicken rearing**- He has 10 indigenous chicken on his farm and gets at least 10 eggs per day. He sells the eggs at 15ksh each. He said that the only challenge he is facing with this project is theft. The chicken cannot be left to walk out freely or be kept in a house that is far away because they will be stolen. He plans to buy broilers in future to have a good supply of the meat to the community.
Dairy goat-When we stepped on his compound, the smell of dairy goat was in the air, I was interested to find out if he had any since they were not in sight. He delightedly took us to where he had taken them for grazing near the river. In total he has 8 does and 1 buck. Among the 8 one had a kid and he was milking her. He said that he gets one and a half liters of milk per day from the goat. He sells half a liter at 120 per day and the rest is consumed by his family.
Another quite outstanding thing with Mr. Henry was that he was utilizing the sun by using a solar panel for lighting in his house. He took us to his kitchen and we were awed since he was using an energy saving Jiko. He said he uses very little wood to cook his food so he is not worried of looking for firewood.

**Trees** – He has planted 20 trees but his farm in intercropped by fruit (pawpaw) and other trees. On the same farm he has an orchard on oranges and grafted mangoes. The oranges had fruited but were yet to mature. He informed us that he had sold all the mangoes during its season that ended in February.
MARKETING STRATEGY

I was keen to understand how he does his marketing since he said the demand id higher than what he supplies. His response was admirable, he pointed out that his first customers are the community around him. He supplies to all of them with his vegetables and fruits. But before he sells to them he goes to the market at dawn, establishes the market price then comes back home to sell to the locals depending on the price at the market.

FUTURE PLANS

Mr. Henry plans to install electricity on his farm and purchase sprinklers to be used for irrigation. Since indigenous vegetables have higher market prices, he plans to plant more. He also wants to penetrate supermarkets so that he can supply his vegetables to them.