



Farmers watching and taking notes as they are shown the steps of making chicken feed

## CBO EMPOWERMENT THROUGH IMPROVED CHICKEN VALUE CHAIN

*Part of the CBO empowerment programme is to support the CBOs to become more self sustaining. To this end the indigenous chicken value chain was seen as a good business opportunity as Nyeri, Machakos and Makueni Counties identified this value chain as one the four they most recommend.*

*By Oleleshwa Community Outreach*

While the incubators donated to each CBO have some technical problems that are currently hopefully getting sorted out, there are other ways of encouraging farmers to improve their chicken flocks, one of them being improved feeding.

Commercially bought chicken feed has been reported to not only be very sub-standard, but also too expensive, to the extent that rearing chicken is not a realistically good option. However commercial chicken farmers mix their own feed and get very good results.

The SFE chairlady and staff had visited one such commercial chicken farmer, and convinced him to come train their group members. Mr Karuiru very kindly agreed to undertake such a training.

This was the first successful breakthrough for the promotion of the chicken value chain in Mweiga area, and as such many stakeholders expressed interest and took part in the training such as:

- SFE office and board members representatives — Host
- SFE SHG Representatives — Victory Youth Group, Good Hope SHG, Jamii Uplifters SHG, Kamatongu Agribusiness SHG
- Nyeri County Agricultural Officer — ASDSP office
- Kieni West Agricultural Sub County officers
- World Vision Mweiga AP

- Karemeno Chicken Farmers representative
- Enderasha/Mwiyogo Ward Chicken Farmers representatives.

Materials were donated by this SuG/CISU-funded project which is supporting the two CBO's: SFE-CBO and KM-CBO. And both growers and layers mash was prepared. There was not enough time to also prepare chick mash, so this exercise was postponed to a future date.

SFE-CBO and Victory Youth Group are now able to train other farmers on chicken feed formulation

On the training day the SFE-CBO already sold some of the prepared chicken feed, which will enable them to buy more materials for

*Contd. on page 2*

## CONTENTS

- 1 CBO empowerment through improved chicken value chain
- 2 Food safety and nutrition
- 4 Farmer innovation in Makueni
- 5 Success story of Irene in organic farming
- 6 Organic climate smart demo plots
- 8 Farming sustainably: from Kilimohai brochure
- 10 Environment Day in Machakos County
- 12 Recent events
- 14 Farmers as researchers
- 15 Working with schools
- 16 Planting trees with farmers and schools

Contd. from page 1



Farmers listening keenly and taking notes as Mr Karuru trains and takes them through the various steps of making their own chicken feed to improve their flocks.

another batch. The Enterprise will be run by Victory Youth Group — a member group of SFE-CBO — and profits will be shared with SFE-CBO.

Additional support was promised by both World Vision and the ASDSP representative, to propagate such knowledge widely in the area.

## FOOD SAFETY AND NUTRITION

Healthy foods are those that provide one with the nutrients needed to sustain one's body's well-being and retain energy. Water, carbohydrates, fat, protein, vitamins and minerals are the key nutrients that make up a healthy, balanced diet. Healthy food is grown naturally without using any form of chemicals from growth to preservation. SFE-CBO — Shamba Farming and Ecotourism Community-Based Organization — has been in the fore-front to advocate for food safety to promote good health via their organic field officers.

By Rose Wangui Waigwa



A perfect nutritious meal has components from every food group in proportions illustrated above.

Normally most members of the community eat any available food to satisfy their daily food needs. In Central Kenya, the most commonly grown food are potatoes, maize, sweet potatoes, arrow roots and beans. These are the staple foods. A normal meal is served as a plateful of all these combined together and accompanied by a cup of tea. Vegetables are normally bought at the market when they can be afforded, and are inevitably sprayed with agricultural chemicals.

In Kenya this is a serious health risk as there is no official control with which pesticides can be sold to farmers, and farmers are hardly aware of the toxicity or indeed the safe withholding times. According to KOAN (Kenya Organic Agriculture Network) who have analyzed samples of vegetables from different markets

and found traces of chemical not even allowed for vegetables in the rest of the world and at very high levels — 50–1000% higher than maximum residue allowed in some cases.

This scenario is harming people and results in communities where most families have members that suffer from non-communicable diseases like blood pressure, cancer and diabetes, etc. Some of the chemicals sold in the local markets or by rowing agents are highly carcinogenic.

To ensure that proper and safe eating habits are observed with balanced nutrients, every household among SFE members has been trained on how to set up a kitchen garden. A kitchen garden can either be a small piece of land where vegetables are grown or even vertical garden. Farmers are usually advised to secure a small portion of land next to the house where they

Contd. on page 3

Contd. from page 2

plant all types of affordable and available vegetables and at least two non-seasonal fruit trees. Different vegetables give different forms of vitamins. During the field trainings the OFOs have always had a slogan that says "The darker the vegetable the more nutrients it has." this has encouraged farmers to plant traditional vegetables like *sarget*, *terere* and *managu*. The farmers have been trained on having a colorful plate of food unlike before when a plate is served with only starch-filled food. Farmers have been trained on the various nutrients sources which are as follows:

- **Carbohydrates** as energy giving foods and are sourced from grains: wheat, maize, corn, millet, oats, rice, flour, pasta, noodles; potatoes; sweet potatoes, yam. Fruit, sugar. Refined carbohydrates are basically very poor in needed nutrients. 80–95% of vitamins and minerals and even proteins are removed during the refining process. At times a few vitamins are then added to fortify these poor foods. Only wholemeal grains supply the full nutritional value. Incidentally whole grains also give us healthy fibre to keep the digestive system in good order.
- **Proteins** are for body growth and maintenance. These are foods like meat, fish, nuts, eggs, soya and beans. Growing children and young adults need more protein than adults.
- **Vitamins** are for metabolism regulation and cell growth and are derived from vegetables, fruits and fresh seeds. We all need vitamins. Vegetables and fruits are also very good sources of the much needed fibre.
- Other important foods for our bodies, are foods that give **minerals and fats**.



Above is different food presentation showing balanced diet. All foods are locally available.

All the above foods can be sourced locally and with ease. These includes safe drinking water which gives minerals and also hydrates our bodies.

Every household is encouraged to keep at least 5 chicken to ensure there is a source of protein for the family. An egg twice a week supplements sources of plant proteins. The outcome of these trainings has been seen with improved health for young children. Reduced attacks of common colds, glowing skin and increased weight.

SFE looks forward to greater achievements through community empowerment and health improvement. More trainings are set on value addition and marketing of farm produce.

The SFE-CBO is so thankful to our great supporters CISU, SwB, advisor from Oleleshwa community, community members and all the stakeholders who have faithfully supported the on-going project.



Maria, a lady from Kabendera Ladies SHG, grows spinach in a small space. She has enough for her children and even sells to her neighbours besides the dry period. She treats grey water with ash and uses it for her kitchen garden vegetables.

## FARMER INNOVATION IN MAKUENI:

*Planting maize in nurseries before the rains to get an early start*

*By Rachel Narokine Kiio*

Due to scarcity of rain and climate changes affecting most of Makeni County, the **Ngiluni farmers** together with the KM-CBO organic field officer, in November 2022, took another direction using the little water available to water their maize in a nursery for 3 weeks before the rainy season. The seedlings were then transplanted to the zai pits dug in the field when the rains came.

With the advice of the organic field officer, Ngiluni Farmers applied sound agro-ecological practices such as preparing to plant the maize in zai pits using composts and farm yard manure instead of artificial fertilizer, and using natural biopesticides for insect control, such as Pyrethrum flower dust to protect against cutworms.

The Ngiluni farmers using this method had abundant and early harvest, while their neighbours using traditional methods had to rely purely on the rainy season, resulting in very poor results. One farmer **Sarah Kaluki** from **Ngiluni Farmers SHG** harvested 3 times her normal harvest.

### Establishment of a maize nursery:

A nursery is a protected environment where a seedbed is made for production of planting materials before establishing them in the main field. Nurseries can be necessary in conditions where:

- Seedling are too small and delicate.
- Improved care of new plants by watering and weeding.
- The nursery should have enough manure or compost.
- Until germination the nursery bed should be covered lightly with mulch to encourage good germination and avoid drying of the young plants.
- The maize planted should be watered daily for good and easy germination.
- Avoid pets or livestock near the nursery.
- Pyrethrum flower dust can be applied during the nursery preparations to ensure that the young seedlings do not get consumed by insects.

### Transplanting of maize

- Transplanting should be done very carefully so that the roots are not cut or damaged.
- The planting holes dug should be made wet before transplantation and after planting so that the roots can grow easily and faster noting that the manure or compost used could be dry.
- The maize can be top dressed with manure teas and tithonia so that they grow healthy in an organic way.
- Maize planted with compost are not as prone to diseases and pests as maize planted with either raw manure or fertilizer, because almost all pathogen are removed during the composting process and replaced with beneficial microorganisms.

### Yields

In spite of the drought which caused many of her neighbours to harvest nothing last season, Sarah Kaluki harvested 8 bags of indigenous maize and 1 bag of beans from about ½ acre, compared to 2 bags the previous season. As there is a demand for the indigenous seed, Sarah sold her harvest to other farmers for planting and made a good income from this. Ten (10) of Sarah's neighbours who followed her example with early planting in nurseries, followed by transplanting to the field using compost manure or manure, can also testify to the success of this excellent idea. So this season (April/May 2023) more farmers are following in Sarah's footsteps. They are determined not to experience the same hunger of the last 3 years.



**LEFT TOP:** Mixing weeds and manure for top dressing of plants. **LEFT BOTTOM:** Watering by hand. **MIDDLE:** Sarah Kaluki plants new maize in between the almost ready ones in small zai pits and waters by hand during dry spells. **RIGHT:** Transplanting maize before the rains — approximately 1/2 acre.



## SUCCESS STORY OF IRENE IN ORGANIC FARMING

*“I have seen a total transformation of my life since I got to know SFE-CBO some years ago”  
says Irene Mumbi, a mother of three who switched to organic agriculture farming 5 years ago.*

*By Ibrahim Mwangi, OFO Mweiga*

Irene, who lives in Kiawara area of Kamariki and is a member of Young Ladies SHG which is SFE-CBO affiliated in Nyeri County, says she is healthier than she was 5 years ago thanks to organic farming. “I have learnt and experienced what healthy eating means to my health and my family is healthier. I have even become an advocate for organic farming through my own experience.

During last year the second rainy season again did not materialize as expected continuing a serious drought in most places for the last 3 years. Irene’s neighbours did not harvest much – their crops mostly dried up at about 1 m height.

However Irene uses compost manure and well decomposed animal manure which has improved her soil fertility. “When you improve your soil fertility by adding organic matter into the soil it sustains plant growth and optimizes crop yield while minimizing the environmental impact. ”She also uses organic pesticides like Marigold, Tithonia and onion leaves to deal with pests. This she soaks in water for seven days and then sprays her crops.

Irene’s pocket is even healthier, “I made about 70,000 shillings from my maize production last season compared to previously 15,000 shillings before going organic,” she adds. Maize is not the only crop in her close to two acres farm in Kamariki. She grows tree tomatoes, vegetables, sweet potatoes, beans and other food crops as she practices mixed farming.

“The benefits of intercropping are that there is never shortage of food in the family as crops mature at different times. There

is also the benefit of selling produce from fruits and vegetables which ensures I am never broke”, she explains.

It took Irene six months to convert her farm into an organic. This may seem little time but she says she never witnessed any challenge.

On the contrary Irene found that the expensive products used in conventional farming were harming the land and depleting soil nutrients and microbiological diversity, like useful bacteria and fungi. Over time this makes the land less productive, meaning declining yields for farmers. Irene says she used to use a lot of pesticides and fertilizers before going organic, but there is no such expense today and the yields have increased.

“Biological methods of killing pests are good as they don’t leave any trace of chemicals in the food chain. Our animals stay healthy and thus the meat we consume is also pure, and we do not pollute the water from our rivers”, she says.

She urges farmers to take up organic agriculture as a way of life for safe food and healthy life but the bottom of it all is to ensure your soil is fertile.

Soil fertility can be further improved by incorporating cover crops that add organic matter to the soil, which leads to improved soil structure and promotes a healthy, fertile soil; by using compost manure and growing legumes to fix nitrogen from the air through the process of biological nitrogen fixation and once you do all these you are assured of good harvest.



## ORGANIC CLIMATE SMART DEMO PLOTS

*Photos courtesy of SFE and KM-CBOs*

Both SFE and KM-CBO have established organic kitchen gardens and demo plots both in the partnering schools with board members as well as other groups. The following are some examples of demo plots in schools and with members:



*SFE-CBO demo plot getting established at Mattanya – board member Peterson Mwaniki.*



**LEFT:** Multi-story kitchen garden under construction in Nairutia, with SFE Treasurer, Joseph Nginga, assisted by vice-chairman, Patrick Wachira and OFO Ibrahim. **RIGHT:** Mr. Kaniaru with his multi-story kitchen garden demo.

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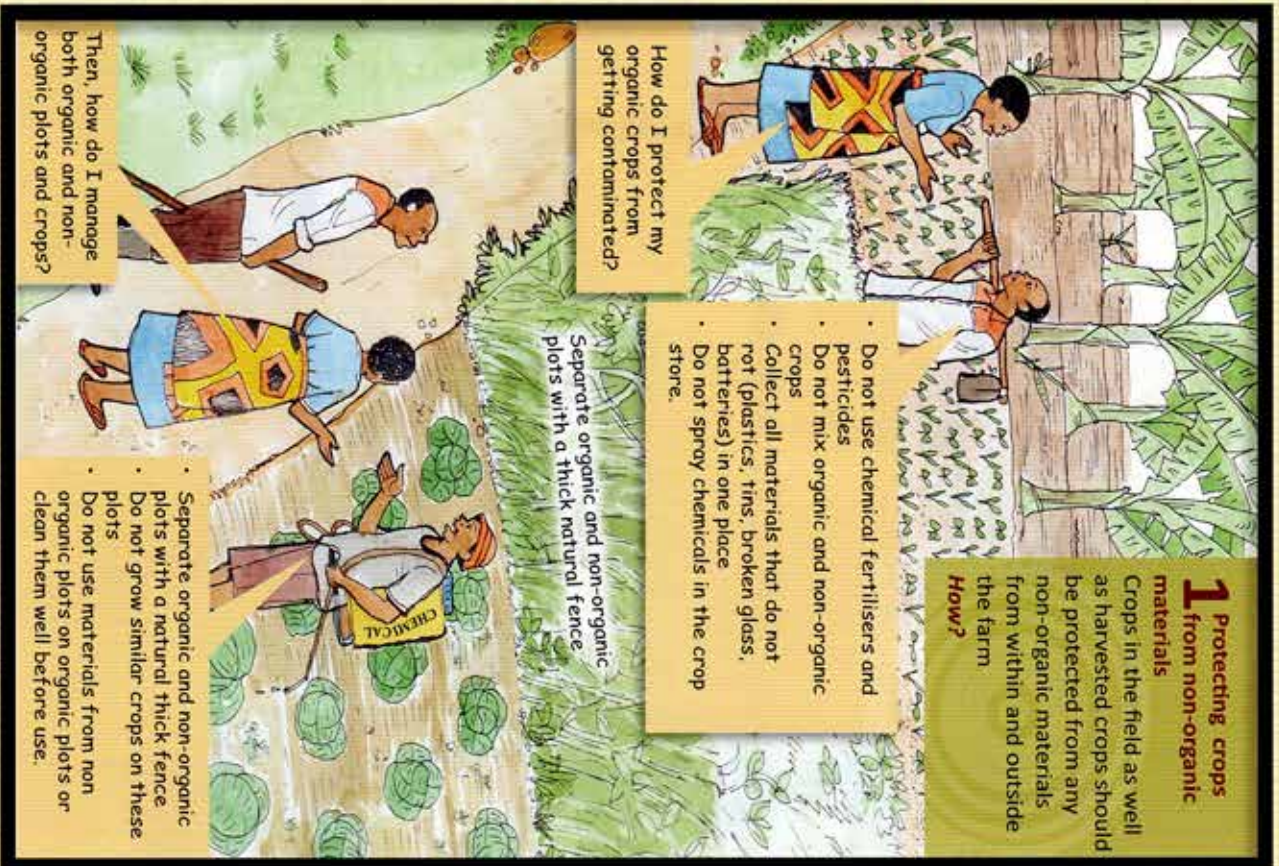


**ABOVE:** Farmers setting up a kitchen garden using the zai pit technology that holds a bigger number of vegetables in a small space, minimises use of water and labour. **BELOW:** Tree nursery and demo plot with SFE-vice secretary, Rosemary Murage getting inspected by Chair lady Gladys Wachira.



**LEFT:** OFO Everlyne Mutua from KM-CBO with Kimua Primary School pupils in their demo plot, celebrating organically grown maize which is almost ready to eat. **RIGHT:** KM-CBO demo plot at Kyambai Primary School with OFO Rachel Kio. All demo plots done by KM-CBO involve the zai pit technology which is very successful in dry areas.

## FARMING SUSTAINABLY: from Kilimohai brochure



**1 Protecting crops from non-organic materials**  
Crops in the field as well as harvested crops should be protected from any non-organic materials from within and outside the farm  
*How?*

- Do not use chemical fertilisers and pesticides
- Do not mix organic and non-organic crops
- Collect all materials that do not rot (plastics, tins, broken glass, batteries) in one place
- Do not spray chemicals in the crop store.

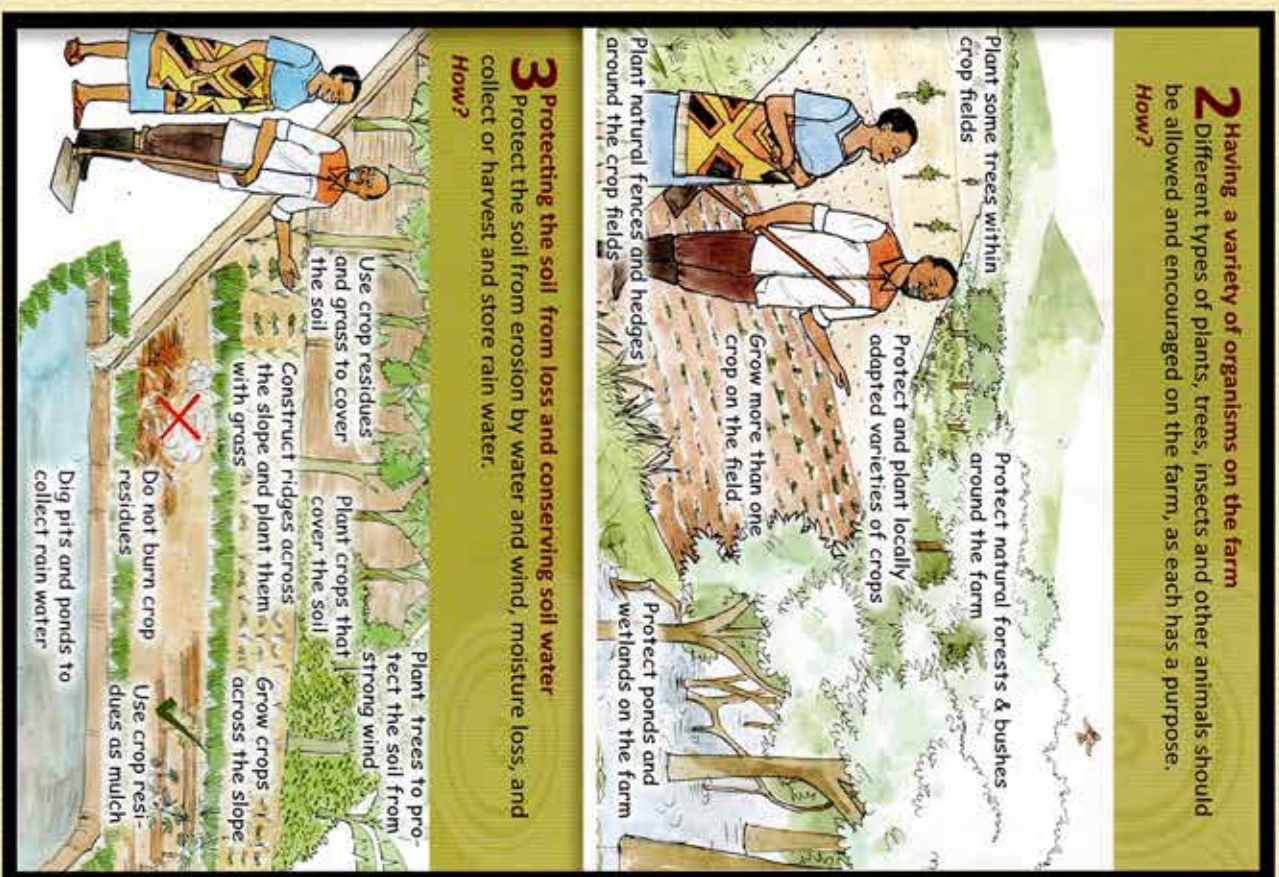
**How do I protect my organic crops from getting contaminated?**

Separate organic and non-organic plots with a thick natural fence.

Separate organic and non-organic plots with a natural thick fence

- Do not grow similar crops on these plots
- Do not use materials from non organic plots on these organic plots or clean them well before use.

Then, how do I manage both organic and non-organic plots and crops?



**2 Having a variety of organisms on the farm**  
Different types of plants, trees, insects and other animals should be allowed and encouraged on the farm, as each has a purpose.  
*How?*

Plant some trees within crop fields

Protect natural forests & bushes around the farm

Protect and plant locally adapted varieties of crops

Grow more than one crop on the field.

Protect ponds and wetlands on the farm

**3 Protecting the soil from loss and conserving soil water**  
Protect the soil from erosion by water and wind, moisture loss, and collect or harvest and store rain water.  
*How?*

Plant trees to protect the soil from strong wind

Use crop residues and grass to cover the soil

Plant crops that cover the soil

Construct ridges across the slope and plant them with grass

Grow crops across the slope

Do not burn crop residues

Use crop residues as mulch

Dig pits and ponds to collect rain water



# FARMING SUSTAINABLY: from Kilimohai brochure

**4 Feeding the soil**  
 Apply appropriate measures to feed the soil, which then will feed the plants. A fertile soil will support good crop growth.  
*How?*

Use crop residues and grass to cover the soil

Grow leguminous crops with or in rotation with other crops

Apply animal manure and compost

Grow crops that feed the soil and dig them before they flower

**5 Keeping crops healthy**  
 Provide good growing conditions for crops so that they are strong against pests, diseases and weeds.  
*How?*

**MANAGING PLANT PESTS, DISEASES & WEEDS**

Feed the soil to get strong plants

Remove infested plants

Use clean tools

Use traps to capture moving pests

Monitor your crops regularly for any pests or diseases

Use clean healthy seeds and planting materials

Remove all weeds early before they produce seeds

Use natural mixtures

**6 Other requirements**

- You can use non-organic seeds, when organic seeds are not available, except GMO.
- To produce organic mushrooms, use only organic or natural materials
- Where using animals for work on the farm, feed them well, give good housing and protect them from infections.



*Pelum Chairman and colleague, acting headteacher, Ruth Kyungu (in red with some teachers and pupil's, Anne Bruntse from Oleleshwa, between Assistant County Commissioner and Chief of the area, KM-CBO Chair with staff and Board who were all planting trees.*

## ENVIRONMENTAL DAY IN MACHAKOS COUNTY

*Part of the activity plan for KM-CBO is to lobby and sensitize the local communities on ways to adapt to climate change. The approach we use is to teach farmers to take care of their environment, plant trees, farm sustainably, and have kitchen gardens. Part of the outreach happens through primary and secondary schools, as the next generation is even more important than the present one.*

*By Rachel Narokini Kiio and Dr. Regina Muthama*

**Kimua Primary School** is one of our schools that we use to train the local community. This school has an active 4K Club that practices agro-ecological sustainable agriculture and was chosen as a model demonstration school within the area. The

KM-CBO team picked the school to mark a local environment day because the parents and community could be highlighted on environment and climate changes as well as to sensitize the whole community on climate mitigation.



*Environment Day students performing a song about pumpkins.*

The school provided trees to be planted by the guests to mark the environmental day and zai pits were prepared ahead of time ready with manure incorporated with soil.

The event took off very well with pupils entertaining the guests by reciting poems and songs explaining the importance of taking care of our environment and how to take care of our soils as well as the soil microbial activities as they arrived followed by the speeches from the guests.

The Vota Assistant County Commissioner, Mr. Elija Jiwe, the area Assistant Chief, Mr. Mutunga, the area Chief, Mr. Pius Kioko, Mr. Patrick Kihoro from PELUM Kenya and teachers from the neighbouring schools, the Oleleshwa Outreach Director, Madam Anne Bruntse and the KM-CBO Chairperson and her Board members who were the lead team all made their speeches.

*Contd. on page 11*

Contd. from page 10

After the speeches the guests and parents were led by singing 4K Club pupils to the demonstration plot and were assisted by the OFOs to explain the technologies and their benefits in the soil and water conservation as well as sustainable food production. The guests were very impressed by how well the organic farming and it's technologies worked stating that that was what they needed to ensure they lived a good life and also produce sustainable produce that will help them make money.

The assistant county commissioner was also very happy to see what KM-CBO has been doing for it's community. Mr. Jiwe further stated that the soils are very good compared to other areas in Kenya and that they only need to use proper land management as well as use organic methods which are harmless to the environment and human being as trained by the KM-CBO team. The guests led by the KM-CBO Chair person and Oleleshwa Outreach Director, Anne Bruntse, then planted trees to mark the day which were given to the 4K Club pupils to look after. With the vote of thanks from the schools acting Head teacher, Madam Ruth Kyungu, the guests, parents and pupils were served with refreshments and some entertainment and we closed the event with prayers.

This day marked the local environmental day where the schools and communities started to be sensitized on climate change mitigation and environment conservation.

## Achievements

- The Assistant County Commissioner promised to assist KM-CBO reach more communities through the county government.
- The schools around the area would like to join KM-CBO, i.e. Makyau Primary School.
- Many groups to register with the KM-CBO after the event.
- This event reached very many farmers and has opened up many minds.
- Kimua Primary School has 190 fruit trees after they replaced the trees that were destroyed by animals.
- We were able to reach out to 750 people which was a good start for this community.

## Challenges

1. Animals from the neighbouring community have been destroying the trees and plantations, thus there is need for fencing.
2. The community is a bit reluctant to learning hence dragging the community behind.
3. The community has lack of knowledge.

## Conclusion

There's need for collaboration and networking in the community and also to train the farmers on agri-ecological sustainable agriculture.



**LEFT:** OFOs Rachel and Everlyne assisting Madam Kioko plant vegetables in an innovative garden. **MIDDLE:** OFO Rachel planting an avocado tree during the preparations ahead of the environmental day. **RIGHT:** OFO Rachel and Raphael together with Teacher Winny after making compost.



**LEFT:** KM-CBO chair person Madam Regina with guests attentively following OFO Raphael.



Pelum Kenya at Kimua Primary School during the local Environmental Day planting trees.

## RECENT EVENTS

*For both SFE and KM-CBO's, the last few months have been hectic...*

*by Oleleshwa Community Outreach*



*CISU auditors with SFE-CBO board & OCO Director visiting SFE Vice chairman, Patrick Wachira. INSET: Incubators and chicks.*

In SFE-CBO first there was a visit from the project auditors from the donors CISU, Denmark, to monitor the progress of the project: CBO Empowerment and Promotion of Sustainable Agroecological Practices and Climate Mitigation – the Mweiga part.

Also representatives from Kisii local ASDSP came to visit, to see how things were organised by SFE-CBO – reportedly they were looking for success stories for the country-wide promotion of the chicken value chain.

Secondly, the following week, the whole of Nyeri County Agriculture officials including ASDSP showed up at chairlady Gladys Wachira's for a surprise visit and to see how they could partner with SFE-CBO. From this came many invitations for partnership, and ASDSP suggested they assist SFE-CBO put in a proposal to their partner USAID. This is currently under preparation.

Then third big activity was the preparation of the PGS (Participatory Guarantee System) market launch of organic vegetable sales in Nanyuki. SFE-CBO has for the last 3 months been busy registering all their organic farmer members and recording which crops are grown by whom, so that they can coordinate a good supply chain once they launch their market stall in Nanyuki.



*Preparation of market stall in Nanyuki market. SFE-CBO has purchased a plot in a very good location near the road, waiting for launch of the PGS.*

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*Regina Muthama (KM-CBO Chairlady), proudly displaying her Honorary PhD award from Dominion Mission Theological University, Machakos Branch.*

Meanwhile KM-CBO have also been very busy. The chairlady, Regina Muthama, was on April 15<sup>th</sup> 2023 awarded an Honorary PHD degree for her outstanding community work: Doctor of Public Service (DPS) from the Dominion Mission Theological University, Machakos branch.

KM-CBO have also been registering members for their PGS marketing push of organic vegetables since the last training in January 2023, but were delayed as they had to prepare their stand and demo plot at the Machakos showground, to be able to take part in this years ASK show. Their excellent demo of planting in zai pits from last year had unfortunately been flooded by heavy rain, and could not be redeemed, so they were allocated a new plot.

The ASK show participation was very successful and KM-CBO earned a third prize for

the category of NGOs behind PELUM and the Catholic Diocese, with whom they have no chance of competing.

KM-CBO stand at Machakos ASK show June 2023, displaying organic products and items made for sale by youth groups as well as tree seedlings, honey and various local seeds The OFOs took turns explaining the – **why organic, healthy and sustainable** — to the multitudes coming to look in on them.



**LEFT:** The certificate KM-CBO was awarded during the Machakos ASK Show in June 2023. **RIGHT:** KM-CBO stand at Machakos ASK show June 2023, displaying organic products and items made for sale by youth groups as well as tree seedlings, honey & various local seeds. The OFOs took turns explaining the – **why organic** — to the multitudes coming to look in on them.

## FARMERS AS RESEARCHERS

*When starting out on the natural farming road, farmers have to experiment a lot, as there are no real official recommendations to guide them*

*By Oleleshwa Community Outreach*

Following are some examples of the research farmers have done in the Mweiga area:

**A. Peter Kaniaru** changed to organic farming five (5) years ago when the SFE-CBO first started getting advice through a donor project. He has now virtually eliminated the need for fertilizer and agrochemicals. Peter also rears rabbits and cows, and has discovered the benefits of using the fresh urine from his animals to boost plant growth.

Last season when there was a serious drought in his area, he sprayed all his crops, i.e. onions, maize and beans, with either rabbit urine or fresh cow urine mixed with water (*the ratio of water to urine is 6:1*). He had very good yields and no pests.

Peter also tried a new bean variety called "Shelelang" and instead of planting them the traditional way – 3 beans per planting hole – he followed the instructions on the seed package and used the spacing of 25 cm between rows and 4 cm between seeds. This plot yielded almost double of the one planted in the traditional way.

**B. Lucy Wamboi** started the organic experiments last year with ¼ acre of cabbage, nourished with compost manure and sprayed with home-made botanicals as recommended by the organic field officer. This crop was

very successful, so the family continues to experiment with natural farming.

Lucy and her husband also hosted a flock of maasai cows during the drought, and got lots of dry cow manure to use on their fields, which improved the yields on the 1 acre rented plot a lot, to the extent the owner wants the land back. So some successes have unforeseen consequences.

Last season there was not enough rain, so the success was limited to a shorter period.

**C. Abdi Ishmael** is another accomplished farmer researcher and a great believer in vermiculture. He uses worm juice for all his top dressing.

Last season he decided to compare compost, cow manure and forest soil as crop nourishment to see which was better. He found that compost and forest soil were far superior to raw untreated manure.

On another rented field he used conventional fertilizer for his maize but this did not fare well during the drought. The plots that had organic manure were far more superior.

The project continues to document farmer success stories and farmer-led research.



*Photos courtesy of Peter Kaniaru, Lucy Wamboi and Abdi Ishmael.*

## WORKING WITH SCHOOLS

By Regina Muthama

Katoloni Mission CBO works extensively with other partners to the benefit of our members, such as:

- Promoting wider network training on issues to mitigate climate change.
- Environmental conservation.
- Having sustainable food security.
- Exposing them to other institutions and partners.
- Working with youth, schools and outside schools.
- Bring innovative ideas of sustainable agricultural practices which are more suitable in rural areas.
- Promoting chicken value chain.

Part of Project “CBO (Community) capacity building” is also building the capacity of your young people. Thus this project has set up demonstration plots for agro-ecological practices in several schools in collaboration with the Ministry of Education and the agriculture teachers and encouraging them to form 4K clubs and promote tree planting.

Schools register with 4K Club/Young Farmers Federation where they can write proposals to the Ministry of Agriculture to promote the implementation of the activities. Pupils and youth extend practices to their homes, neighbours and friends which gives a wider impact on the ecological activities for the benefit of food security, environmental conservation, climate mitigation and they are exposed to like-minded partners who support the practices for the benefit of the entire community. The youth imitate the ecological practices in schools, at home and their villages which reminds them about caring for the whole ecosystem, opening a way for the future generation without damaging all the natural resources which are essential for our entire country.

Below are some examples of essays taken randomly from an essay competition among grade 6 pupils in 2022. They show that at least some students have grasped what the message is: Organic, Organic, Organic....

With love to Madam Regina and your support team, you never tired to do good. Be blessed above and beyond.

Let me talk about achievements from the different projects established.

More trees have been planted where we know the benefits are many from beauty to soil conservation, not leaving behind that it has helped pupils know many types of trees thus enhancing learning.

Pupils have embraced what has been learnt (i.e. organic farming) extended the same to the community and some is being practiced at home. We are looking for a healthy future generation where the song is... Organic!... Organic!... Organic!

Thanks

### Achievements of Agro-Ecological Practices Between KM-CBO and Kimua Primary School

Great gratitude goes to Katoloni Mission Community-based Organisation for equipping us with the knowledge of Agro-Ecology. They have been a benefit to us as Kimua Primary and the community, mostly our parents who have benefitted greatly from the forums, projects and most of all the sensitisation to the community.

From numerous projects established by our CBO, one is tree planting as mentioned earlier. What are the benefits of trees to climate mitigation? Trees are known to absorb carbon dioxide from the environment, using it for photosynthesis & store the rest hence giving out oxygen which is in the forest for human use.

Trees have modified the climate in our school. We get fresh air, the place is a bit cooler. The surrounding trees have also benefitted us to obtain mulch, leaves for making compost. So I can attest to the importance of trees.

Let me also talk about the problems we have experienced hindering proper implementation of the project:

1. Prolonged drought which has seen to most of our projects drying up.
2. Theft from villagers, though this was catered for a these demonstration area is now fenced off. We are thankful to CBO.
3. Water — to effect the different projects is a problem as we have only one water point which is a strain as we also have projects for the CBC classes.

All in all, tremendous love to our CBO and 4K Club partners.



## PLANTING TREES WITH FARMERS AND SCHOOLS

By Everlyne Mutua and Oleleshwa Community Outreach

The partnership between **Global trees Network Foundation (GTNF)**, **Seniors without Borders (SwB)** and **Oleleshwa Community Outreach (OCO)** continues to flourish. Total trees donated to date is

17,861 since December 2020. However as 2022 was extremely dry and survival of small trees fairly poor, each CBO decided they could replace the non-surviving trees at no extra cost.



Avocado seedling at Kwangolia Primary School.

### SFE-CBO planted mostly with schools, May 2023 as follows:

Rurichu Primary School	300 trees
Lamuria Primary School	300 trees
Kihato Primary School	300 trees
Kihato Secondary School	300 trees
Nairutia Primary School and had also received trees from KFS	*100 trees
Mwihoko Primary School	300 trees
Gitegi Primary School	275 trees
Gitegi Secondary School	275 trees
Githura Primary School	300 trees
Ikumari Primary School	300 trees
Matanya Mweremia SHG	00 trees
Mwitirithia Mwihoko	200 trees
Nganyuthe SHG	200 trees
Chief's Office	50 trees
Jamii vision uplifters	300 trees
Mwireri good hope	300 trees

\*Avocado trees

### KM-CBO planted 1000 donated trees as follows:

Ngiluni Farmers	50
Kivalalani SHG	30
Ngiluni Primary School	40
Kyambai Primary School	90
Kyuluni Women Group	50
Mbaa Matolo SHG	30
Kivai Movers SHG	50
Kivani Young Organic Farmers	30
Kalonduni SHG	50
Katemani SHG	50
Kikuyu kwa Muange	50
Kikuyu Widows	30
Mbakandu SHG	50
Upper Kaewa Cooperative	70
Kimua Primary School	66
Iiyuni Secondary School	66
Thoma Primary School	66
Mikuyu Primary School	66
Kaewa Secondary School	66

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