

2022 END OF YEAR REPORT

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INTRODUCTION



Our efforts at the Makueni food forestry project have paid off! We started by creating blended training modules with both face-to-face classes and a digital version to educate farmers in the region on how to design and implement food forests.

Our focus was on helping smallholder farmers and food entrepreneurs, especially women. And we're proud to say we've made tremendous progress towards this goal over the past two years.

We've developed a comprehensive training program that covers everything from selecting the right site, Principles of food forests to planting and maintaining the forest.

Our project has been thriving in the Makueni area despite the challenges of the past year, such as drought and water shortages. We've organized workshops and training sessions for local farmers, which have received overwhelmingly positive feedback. Our team's dedication and hard work, coupled with the support of the local community, give us confidence that we'll continue to make a positive impact in the region for years to come.

ACTIVITIES

Syntropic Agroforestry

In March 2022, we held training for farmers on designing and developing syntropic food forest systems. The turnout was impressive, with 80 farmers attending the three-day theory and practical class. In addition to training new groups of farmers, we also invited those who had been trained earlier but had yet to learn about syntropic food forests. Thirty of our trained farmers immediately began implementation, as we expected long rains in March. However, March rain only lasted for two days, followed by a whole year of drought in the East and Horn of Africa. Water scarcity became a major challenge for the farmers, with many struggling to feed their families due to the failed rains. This forced them to halt the implementation and setting up of the syntropic food forests. Nevertheless, the farmers did not give up. They prepared their tree nursery while waiting for the next rainy season to start planting.



Water management

In light of the drought, we saw an opportunity to prepare farmers for better water management and planning. To that end, we held another training in October, focusing on the practical aspects of water management. Farmers got to work preparing their terraces while we decided to drill a borehole to provide water to our farmers. After a geologist identified a location for drilling, we found that the yield from the first borehole was very low, so we searched for another site. Luckily, we finally found a spot with enough water to distribute to the farmers. We're well aware of the water shortage and aquifer depletion in Kenya. We hope that sharing water with the community can discourage the careless exploitation of underground water.



Additionally, with the help of syntropic agroforestry, we aim to replenish the water cycle and bring back the lost water springs that feed the rivers, which have become seasonal. If we don't drill a borehole, others will, and they may not share with the locals or make the water too expensive for the community to afford. Therefore, our move to drill a borehole with a plan to add one more is to ensure a redistribution of this scarce resource and reduce the over-exploitation. With syntropic food forest, we expect that in five years, if all our farmers implement the teachings, relying on borehole water will reduce significantly because we will only create a biotic pump to reverse the rain cycle but also with building the soil and collecting all the runway water, we will bring back the water springs.



ACTIVITIES

Trainers training

While the farmers were busily preparing for the imminent rain by setting up their nurseries, we capitalized on the drought and arranged a three-day trainer training session. Our objective was to create a technical team that would assist farmers in implementing syntropic food forests when the rains arrived. We specifically targeted farmers with a higher education level than the average and invited them to attend the training. Throughout the session, we covered the principles of regenerative agriculture, water and soil management, designing syntropic agroforestry, maintenance, and natural pest and disease control. The Training of Trainers (ToTs) was highly successful, and we plan to continue hosting them. We strive to enhance our materials and extend invitations to more people beyond Makueni who are keen on learning about regenerative agriculture.

Nurseries



It is crucial to educate farmers on how to prepare their seedling nurseries as they struggle with the high costs of accessing seedlings. We have been diligently collecting and propagating seeds from various plants, and we have established a large nursery in our food forest. We have a diverse range of indigenous tree species and vegetables, as well as some exotic plants to assess their adaptability in the region. Our primary objective is to promote indigenous species while also testing other species that are suitable for the climate in the area.



In the year 2022, we have made significant strides in promoting the establishment of tree nurseries by farmers. Our training program now includes an additional module that focuses on the preparation of tree nurseries, with the aim of producing a surplus of planting materials for the growing community of syntropic farmers. This initiative serves to provide them with greater independence when it comes to sourcing seeds and seedlings for their crops, while also encouraging a deeper appreciation for the effort involved in growing and nurturing trees.

Milestones

TRAININGS

Our training methodology is a unique-blended learning training, with a digital version that is accessible both with and without the Internet. It involves a lot of practical aspects, and we offer one-on-one technical support to the farmers. The farmers have highly appreciated our approach, as they have experienced other training are provided for just one or two days, sometimes with no follow-up. However, with our approach, we are constantly in touch with our farmers, which helps build trust and better understand their needs. This approach not only helps us acquire a wealth of knowledge but also helps us understand the social-economic dynamics of our farmers, which is crucial for their success.



We have seen an increased demand for our training. We started with one village and are organically spreading to the surrounding villages as the word spreads through our trained farmers. The resilience that was experienced during the drought in our demo farm has also played a significant role because farmers can see. The picture below shows how fast the system can develop and produce abundant food.



March 2022



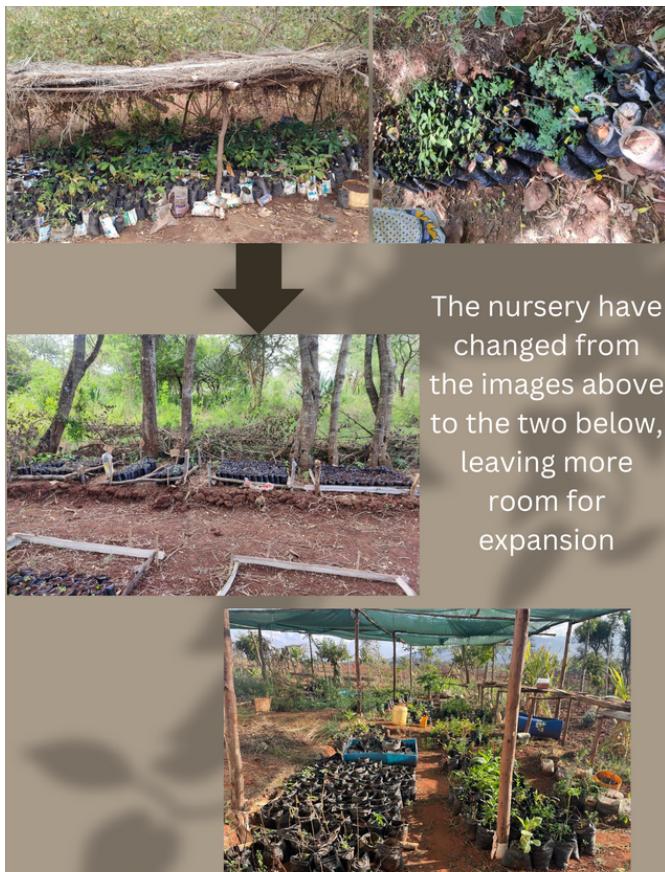
May 2023

Our training program has experienced significant growth over the years. From offering only one training per year, we now provide two, and soon we'll have monthly training sessions starting in 2023. This change allows us to avoid overcrowding and grants farmers more flexibility in accessing knowledge. Our work began in Kwa Miui village, and we're now proud to have expanded to 12 villages, with 250 farmers already trained. We anticipate a substantial increase in participation from June 2023 onwards, thanks to our generous sponsors, Biovision Foundation, Stichting Doen, and Koppert Foundation.

Milestones

Nurseries

Our organization has organized farmers into groups according to their geographic location, and each group has set up their own nurseries. With funding from the Haella Foundation in 2022, we were able to assist these group nurseries in expanding their operations. Our team provided essential items to help propagate the tree nurseries based on their specific needs. As a result, the nurseries have made significant progress, and we plan to continue improving them. Thanks to this program, farmers in these groups have started their own nurseries.



The nursery have changed from the images above to the two below, leaving more room for expansion

The results of training and motivating farmers to establish nurseries have been incredibly successful. More than 70% of farmers now have access to small nurseries with over 50 seedlings, which is an outstanding accomplishment. This also indicates that we have influenced the mindset of farmers who previously believed that planting trees on their land would result in crop failure. They thought trees competed with food crops for nutrients and water, but this perception is rapidly shifting, and we are witnessing the emergence of a tree-planting movement among farmers in the Kiima Kiu area. Even more remarkable is that, despite the prolonged and severe drought and water shortage experienced in 2022, farmers ensured the survival of their nurseries by sharing the little water they could obtain with their seedlings. It is improbable that they would make the sacrifice of sharing their limited resources to ensure the survival of their nurseries and then allow the trees to perish. The trend of establishing nurseries in Kiima Kiu is gaining momentum, with even farmers who have not attended our classes starting to set them up.



Begining of a Systemic Change

When we started working in Makueni in 2020, we encountered several challenges, including poverty, food insecurity, and water scarcity. These issues required a comprehensive solution as it's disheartening to see farmers struggling despite producing a valuable product in high demand throughout the year. Our approach is to disrupt the exploitative system that has existed for too long by using system analysis to identify leverage points for intervention and achieve the greatest impact. Our Syntropic food forest is a holistic regenerative agriculture approach that addresses food and nutrition security while also replenishing the water cycle, reducing farming inputs, and counteracting land degradation. The result is a healthy, clean food that does not require toxic chemicals.



The system implemented in February, just before the long rains arrived in Kenya, was truly impressive. It proved to be highly effective, producing a diverse range of crops with just two days of rainfall and some irrigation. The above image serves as evidence of the system's success.

As the rainy season came to a close, we entered into the tropical winter season characterized by lower temperatures. This year, the season lasted until the end of August, presenting some challenges. Nevertheless, our system remained resilient, and we managed to produce nutritious, chemical-free food without compromise.

In 2022, Kenya faced significant challenges due to one of the worst droughts in the country's history. Fruit trees in many parts of the county struggled to survive, with numerous mature trees drying out. Despite these adverse conditions, our syntropic system demonstrated impressive resilience, enduring both extreme cold (relatively) and hot weather.



Begining of a Systemic Change

The recent rainfall has caused a significant change in our farming system, particularly in the growth of various types of vegetables and fruits. We are delighted to have already harvested some vegetables and look forward to harvesting fruits from the trees starting in 2024. Although armyworms have invaded the county, our system has remained resilient to pests. We strongly believe in working harmoniously with nature to break the cycle of poverty and reliance on credit for food production. Our demo farm has demonstrated remarkable resilience over the past year and has inspired many farmers to adopt this approach. We aim to provide an accurate portrayal of farmers' experiences and do not endorse farming inputs as we are not a marketing company. Our objective is to assist farmers in achieving sustainable and profitable farming practices.



There has been a noticeable change in the mindset of farmers. Previously, farmers glorified the mainstream practice of planting maize and beans as cash crops separately, even though degraded land and diminishing harvests made it increasingly challenging. However, as farmers started embracing our teachings, a fascinating twist occurred. In 2020, the community did not have a nursery, but over the last two years, we have encouraged farmers to start their own individual and group nurseries.



During our 2022 visit to a farm, we were pleasantly surprised to discover that many of the trained farmers had established small nurseries in their homes. Despite Kenya's ongoing drought, these farmers had managed to maintain their nurseries, which was heartening to see. The local advancement of tree nurseries has had a ripple effect on promoting cooperation among farmers to enhance syntropic agroforestry and land regeneration, which is a welcome development. Farmers benefit from group tree nurseries because they provide business opportunities and facilitate connections and exchanges, allowing them to develop innovative ideas to better their livelihoods.

Collaboration plays a vital role in transitioning to autonomous, ecological, and regenerative farming practices, while also promoting resilience to droughts and water shortages. We are delighted to witness the positive impact of our training on these communities and are eager to see the remarkable achievements of these farmers in the future. In addition, we have observed untrained farmers adopting the practice of setting up personal nurseries in their homes, which is a positive spillover effect of our training. We have initiated a movement that will continue to thrive even in our absence. Our goal is to provide an abundance of planting materials to support the growing number of syntropic farmers and grant them easier access to seeds and samplings for years to come. This approach also instils a greater sense of responsibility towards the planted trees, as farmers become more conscious of the effort required.

Plans for the coming years

We deeply appreciate the funding we have received this year from our kind donors, including Biovision Foundation, Stichting Doen, and Koppert Foundation. This funding will be utilized to support our comprehensive program to regenerate Kenya's food system. Our program involves training farmers in regenerative agriculture and piloting a market system for organically-produced food. Our ultimate aim is to establish a connection between farmers in Makueni and consumers in major cities like Nairobi and Makueni. To be more specific, our ambitious goals are as follows:

- Basic agroecology and food forestry training has been provided to 1,800 smallholder farmers through ±60 training sessions, with an average of ±30 persons per session.
- ±300 talented farmers have been trained on an advanced level as part of a 'Training of Trainers (ToT)-program and about 250 of them have provided technical assistance to target groups with the design and plantation of the food forests.
- ±800 smallholder farmers have begun converting their land into syntropic food forests, covering over 1,750 hectares in the counties of Makueni and Kitui.
- We have implemented at least two pilots of regional food chains based on regenerative agriculture, including a new business model for joint marketing and sales of 'local' organic produce on urban and rural markets.
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Our three-year program will focus on agroecology food production and market development. We are proud to partner with a consortium of three organizations, funded by the Biovision Foundation, which includes the Alliance of Bioversity and CIAT (ABC), and Diabetes Awareness Trust (DAT). ABC will lead the research aspect of the consortium, while DAT will focus on creating awareness about Non-Communicable Diseases among consumers.

As 2023 is predicted to be an El Niño year, we plan to work with the local community of Kiima Kiu to establish a community-wide water planning and management system. We aim to harvest enough water to sustain the community during the uncertain Lanina period.

In the coming years, we hope to expand our operations to Kathonzweni (Mburo) and Kitui (Mutomo). To achieve this, we have started acquiring a 17-acre piece of land in Mburo, which will become our second demo farm and future regenerative agriculture institute.