

## 2023 Final Grant Report to the Foundation for Sustainability and Innovation

### A Pilot Project Testing Research and Approach to Training & Adoption of Women's Food & Nutrition Security Agroforestry Home Gardens in Haiti and DRC



(2022 nutritious tree seedling distribution, Democratic Republic of the Congo)

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## Year End Grant Report

**Project Title:** Women's Food Forest Agroforestry Pilot for Sustainable Nutrition Security

**Project Duration:** June 2022 to June 2023

### Executive Summary

The Women's Food Forest Agroforestry Pilot successfully implemented the training of women farmers in Haiti and the DRC to establish agroforestry home gardens for sustainable nutrition security. The pilot achieved its objectives of refining the approach, gathering evidence of its effectiveness, and preparing for scaling up with partner organizations globally. The pilot resulted in tangible benefits for participating women farmers and their communities, including improved food and nutrition security, increased incomes, and enhanced ecological outcomes.

The pilot sites in Haiti and the DRC were led by local leaders, trainers, and partner organizations. Training workshops and demonstration projects were conducted, providing hands-on guidance to women farmers in establishing their own food forest home gardens. Tree seedlings were distributed to participants, and ongoing monitoring and evaluation were carried out to track the pilot's outcomes.

The results of the pilot demonstrated the potential of the approach in empowering women farmers and improving food and nutrition security. The establishment of food forests led to thousands of pounds of healthy food and noticeable improvements in soil health, fertility, and water cycle within a short period. The success of the pilot attracted additional funding for scaling up and replication in other communities and countries.

The monitoring and evaluation plan relied on direct feedback from participants, field staff, and volunteers, including on-farm visits and surveys. Data collection methods ensured the documentation of changes in knowledge, attitudes, farm income, food and nutrition security, and soil health. The use of tech tools for transparent monitoring was also considered for future implementations.

The pilot's accomplishments included the launch of the pilot sites, successful training workshops, replication of the approach by women farmers, and additional funding secured for scaling up. Challenges encountered included weather-related difficulties and economic constraints, which required adaptations in the implementation plans.

In conclusion, the Women's Food Forest Agroforestry Pilot demonstrated the effectiveness of training women farmers in agroforestry techniques for sustainable nutrition security. The outcomes of the pilot will inform the scaling and adaptation of the approach with partner organizations globally, promoting the adoption of regenerative farming practices and addressing the interconnected challenges of poverty, gender inequality, climate change, and food insecurity.

## **Overview**

This grant report outlines the successful implementation of the Women's Food Forest Agroforestry Pilot aimed at addressing multiple interconnected challenges such as poverty, gender inequality, climate change adaptation and mitigation, rural land degradation, deforestation, preservation of indigenous cultures, reforestation, and biodiversity loss.

The pilot focused on training women farmers in Haiti and the Democratic Republic of the Congo (DRC) to establish diversified agroforestry home gardens that provide year-round access to nutritious food.

### **The project's objectives were to:**

- a) refine our nutrition security model and approach,
- b) gather evidence of its effectiveness, and
- c) prepare for scaling up this approach with other RF partner organizations worldwide.

## **Monitoring and Evaluation**

Due to the pilot's short duration, data collection primarily relied on direct feedback from the participating women farmers, field trainers, and volunteers. Regular follow-ups included on-farm visits to women's farms, and in-formal participant surveys were used to document changes in knowledge, attitudes, farm income, food and nutrition security, and soil health.

Qualitative analysis and photographs, videos, and post-training WhatsApp group chats (Appendix A) were used to assess the transformation of women's farms, and the adoption of new regenerative practices that will help restore degraded landscapes over time. Consideration was given to incorporating tech tools for transparent monitoring in the future, including the tree-planting app Greenstand.

## **Results**

The pilot was conducted in Haiti and the DRC from June 2022 to June 2023. Implementation was led by local leaders, syntropic agroforestry trainers, and local NGO organizations. Trainings were held in 2 communities in northern Haiti, reaching 150 families in 3 communities in the DRC, benefiting 150 families in the DRC. These hands-on trainings included the establishment of demonstration food forest home gardens as well as fruit tree nurseries. These are now maintained by the host organizations and the trainee's and are located in the communities of the women who benefited from the training and tree seedling distribution.

During the rainy season subsequent to the workshops, the leading organizations completed the distribution of a total of 3000 high-nutrition tree seedlings so each woman could use these as the start of her own food forest kitchen garden to boost her family's nutrition and food security and increase their income.

## **Summary of Pilot Outputs**

Pilot Site 1: DRC

- Launch of the pilot near APAA farmer training center, nursery, and demonstration farms completed in 3 communities surrounding the city of Uvira.

- The hands-on training program conducted for 150 families, taught by an experienced local agroforestry trainer in women's own local language.
- Organized groups of women into work parties to replicate the process at their own homes.
- An additional \$ 20,000 USD in funding were acquired to scale up the program in the DRC and sustain ongoing monitoring and evaluation of the approach and final nutrition security outcomes.

Pilot Site 2: Northern Haiti, in the communities of Ouanaminthe and St Michelle De L'Attalaye.

- Collaboration with 2 local social entrepreneurs
- A multi-partner collaboration was created, for the successful implementation of two multi-day farmer training workshops with two communities, all organized by Womenful Voice.
- Establishment of two demonstration food forests and tree nurseries.
- Training workshops delivered by local Haitian agroforestry specialists in the local language.
- On-going assistance is being provided to women farmers who attended the trainings, to assist them in building their own food forest home gardens.
- An additional \$ 20,000 USD were acquired to scale up the program in Haiti and sustain ongoing monitoring and evaluation of the approach and final nutrition security outcomes.

### **Summary of Pilot Outcomes**

The pilot is now resulting in tangible benefits for the participating women farmers and their communities. WhatsApp groups were created for the participants to continue communicating and sharing their progress, as well as asking further questions of the trainers. Those groups are active and additional training support has been requested and is now being planned for the 2023 season.

Additionally, \$20,000 USD in additional funding was awarded to each project based on the success of the pilots, thanks to the Jonas Philanthropies Trees for Climate Health Initiative.

In addition, the following other Regenerative Farms' project partners have also been awarded funding, which will help us scale the results of these pilots in other countries. Honduras \$5000, Kenya DNRC \$10,000, MCRP \$20,000, and Umoja Camp \$10,000, TND \$20,000.

### **Lessons Learned**

In Haiti the training was the foundational basis for a new but also long-ranging reforestation program and collaboration between Womenful Voice, Kiskeya International, Regenerative Farms, Trees that Feed, Jardin Botanique De Ouanaminthe, and AgrinoTech. Challenges encountered included a lack of rainfall in Haiti, as pro-longed drought disrupted the typical rainy season, delaying initial tree seedling distribution and kitchen garden planting plans. The decision was made to hold the initial training workshops but delay the distribution of seedlings until the rains began, as many farmers reported difficulties in accessing sufficient water to keep the trees alive without the onset of the rainy season. Similarly, due to political instability, safety concerns, and economic shocks, there were unanticipated costs that had to be worked around, for example the exorbitant cost of \$50/gallon for fuel in Haiti, and scarcity meant that gas had to be purchased on the black market, which significantly affected the project budget. This constraint was unexpected, and the project team had to find alternative solutions to ensure that the project could continue without compromising the quality of the deliverables.

Additionally, some women who participated in the project did not have the means to come to the workshop having eaten any breakfast, and the project didn't have enough budget to feed everyone which is typically done by other NGO's, so this caused some tension and difficulties for the hungry women. The team plans to provide breakfast for the participants during future workshops to ensure that all participants have access to food and are able to engage in the workshops fully. The results meant scaling back on some of the intended outcomes. For example outreach efforts and the total number of days planned for the training workshops, along with the final number of kitchen gardens developed were lower than planned. This was because it was necessary to help the women pay for transport to and from the workshop, and for seedling distribution, in order for them to be able to attend and get the trees to their homes. This phase of the project resulted in the training of 158 women in the northern region of Haiti. The women participating in the program were enthusiastic and eager to learn, traveling far distances to attend the workshops. The deliverables of the project include workshops about kitchen gardening, technical assistance, and support, 70 syntropic food forest home gardens were planted, and the pilot increased women's engagement in agriculture in Haiti, and is starting the rejuvenation of degraded Haitian landscapes through adoption of regenerative agriculture.

New funding obtained in May 2023 will now allow us to build off this foundation and expand the project to many more women.

## **Conclusion**

The pilot aimed to address the escalating humanitarian crisis of food insecurity and famine, exacerbated by the COVID-19 pandemic and existing challenges in agricultural systems. Widespread food insecurity, poverty, and malnutrition pose significant threats to vulnerable populations, particularly in Southern Africa, the Caribbean, Asia, and Latin America. Additionally, women faced disproportionate burdens during the pandemic, including increased unpaid care work and gender-based violence.

The pilot taught women skills in syntropic agroforestry in order to empower women farmers in Haiti and the DRC to overcome the growing food insecurity and climate challenges they face, and to give them new tools to help build long-term local food and nutrition security. Approximately 300 women were supported across the two countries, with resources and training provided to allow the women participants to build more climate-resilient regenerative farming systems at their homes and to plant more high-nutrient tree crops. In Haiti we learned that food traditions are difficult to shift, so focusing on high nutrient crops that families are accustomed to is important, and educating them on which of the foods they like to eat and grow are most nutritious and important for treating malnutrition. In DRC, there is a greater acceptability of vegetables in the diet, and thus also greater flexibility in introduction of new high nutrient crops. Lack of availability of high performance tree crops and varieties was a greater challenge, as was getting those seeds through the importation process which was steeped in corruption. Working with other partners including ECHO and Seed Programs International as well as Trees That Feed, we were able to get a greater diversity of tree crop seeds to our DRC partners to help diversify their food forest species and increase availability of nutritious trees. New funding obtained in May 2023 will now allow us to expand the program, and propagate these new trees to increase the number of seeds available in the region.

The pilot demonstrated promising results in empowering women farmers and improving food and nutrition security. Within two years, participants' food forests are expected to yield thousands of pounds of healthy food, contributing to the well-being and health of these 5 communities. The improved soil health, fertility, and water cycle are noticeable within just months of implementing the agroforestry systems. These early results demonstrated that the model holds value. Women farmers were excited by the training and followed through with planting their own plots with tree seedlings provided after the training. They sought additional support to further their knowledge and expand their access to trees for climate-resilient nutrition and income security. The pilot's outcomes will inform the adaptation and scaling of the approach with partner organizations globally. One change we learned is important, is we must also find funding to help farmers address climate change impacts on their farms, particularly water. This needs to be done early in holistic, resilient design so these very real concerns are addressed before seedlings are distributed.

## Appendix A

### Haiti Pilot Photos

#### Agrino Tech nursery workers planting tree seedlings



#### Training at Agrino Tech nursery



#### Seedlings for longer range reforestation efforts getting established at Agrino Tech

**Jardin Botanique De Ouanamithe, rows of fruit trees including breadfruit, ready for distribution**



**Syntropic agroforestry workshop held at the Botanic Garden**



## DRC Pilot Photos



**One DRC participant community experienced unprecedented flooding in 2023, demonstrating the need for a shift to more resilient permanent tree crops for food.**



**Trainer Aaron Kalala Karumba (far right), with pygmy indigenous forest dwelling community participants who attended nutritious tree crops and food forest establishment trainings.**

**Women in hands-on training in nursery establishment**



**Women learning about organic natural pest control methods and nutrient amendment and growth accelerators to boost their productivity in their crops.**



**Women working together in Kalungwe to plant the demonstration food forest during workshop**



**DRC seedling nursery (above), nutrition security training in the community of Biriba (below)**

