



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Tachawet Ayele with her child at their perma-garden, Gubalafto Woreda, Amhara Region Photo: Masresha Tadesse/CARE Ethiopia

Livelihoods for Resilience Activity

The Feed the Future Ethiopia – [Livelihoods for Resilience Activity](#) is a five-year USAID-funded project running from December 5, 2016 through December 3, 2021. Building on lessons learned from the preceding project (Graduation with Resilience to Achieve Sustainable Development [GRAD]), the Livelihoods for Resilience Activity supports chronically food insecure rural households to build resilient livelihoods with improved food and nutrition security, even in the face of shocks and stresses. The project works closely with the livelihoods component of the Government of Ethiopia’s Productive Safety Net Program (PSNP), and targets nearly 100,000 PSNP households in 37¹ woredas of Amhara, Tigray, and Southern Nations, Nationalities and Peoples’ Region (SNNPR), with the aim of enabling these households to graduate from the PSNP with resilience. A consortium led by CARE and comprising the Relief Society of Tigray (REST), the Organization for Rehabilitation and Development in Amhara (ORDA), Agri-Service Ethiopia (ASE), and the Netherlands Development Organization (SNV) implements the project.

¹ The project started out in 27 woredas, but governmental administrative decisions led to the splitting of woredas, so that the project’s coverage has grown from 27 to 37 woredas, but without expanding in geographic scope.

Learning brief #1 Perma-gardening

This learning brief explores the project’s experience with promoting perma-gardening, including what worked and what didn’t work, unexpected challenges, and how the project adapted its approach to increase the sustainability and replicability of the gardens.



Background

Perma-gardening is one of the nutrition-sensitive agriculture interventions promoted by Livelihoods for Resilience as a means of improving dietary diversity and nutrition security at household level. Perma-gardening is a technique that is new to most rural highlands of Ethiopia, where land degradation and recurrent droughts combined with population growth have led poorer households to farm increasingly marginal land. Nutrition in these areas is often very poor, as households produce a limited number of crops, and very few vegetables, in an agricultural system that is nearly entirely rain-fed. To help address these challenges, Livelihoods for Resilience promotes perma-gardening to help households sustainably produce vegetables year-round—or for several additional months beyond the rainy season, even without irrigation—using practices that improve soil fertility, conserve water, and produce nutritious crops in both rainy and dry seasons. Consuming nutrient-rich vegetables is important for all food insecure households, but particularly those with pregnant and lactating women and young children.

The process

Working with Terra Firma, a company that specializes in perma-gardening, the project provided hands-on trainings of trainers (ToT) to project staff and development agents (DAs) on perma-gardening principles and techniques on land owned by project participants. The trainees cascaded the training to project participants by applying Terra Firma’s “rule of CLOSE” (see text box at right). This helps rural households overcome many of the barriers to adoption (design, soil health, plants, and maintenance) and produce higher yields.

The Livelihoods for Resilience Activity avoids the direct distribution of inputs, but rather facilitates market linkages with agro-dealers to sustainably supply vegetable seeds. The project connects agro-dealers with high-quality seed suppliers, and provides basic equipment for agro-dealers to repackage vegetable seeds from larger cans (which are unaffordable to project households) into small packages that are perfect for perma-gardens and cost only 50 cents to USD 1. Seeds typically include Swiss Chard, beetroot, carrots, and others depending on the agro-ecological zone. Swiss Chard is particularly common. Agro-dealers travel

to project households and conduct demonstrations of various inputs and technologies, and households purchase inputs from them, sometimes individually and sometimes in groups.

Following cascading of the training, more than 9,700 project participants (of whom 4,842 are women) have engaged in homestead gardening and most of them have started harvesting vegetables. Government extension staff have gotten involved as well, as nearly 400 development agents have participated in perma-gardening training.



Perma-garden training to community facilitators and development agents in Woldiya project’s cluster

To promote vegetable consumption at the household level, the project organizes cooking demonstrations using products from the perma-gardens. Whenever possible, the project uses male role models for these demonstrations. While many community members initially find the sight of a man cooking to be funny, the demonstrations generate reflection and discussions on gender roles and, slowly, contribute to shifts in social norms.

The rule of CLOSE ensures that activities are:
Close to home
Local
Organic
Small
Easy from the farmer’s perspective

Key learning—the recipe for success

- **Link households to sustainable sources of high-quality vegetable seeds:** Linking households with quality vegetable seeds is critical to succeed in perma-gardening. During the first year that the project promoted perma-gardening, households in one project area received free vegetable seeds from the government, which they planted in their perma-gardens. These seeds did not germinate, and led to discouragement on the part of perma-gardening adopters, as well as low replication rates. Subsequently, the project has ensured that there is synergy between perma-gardening activities and agro-dealer strengthening activities, so that all households trained in perma-gardening are linked with nearby agro-dealers to buy quality vegetable seeds in small quantities.
- **Consider upfront time and labor investment:** Preparation of a perma-garden requires a lot of time and energy at the beginning, including digging and setting up water harvesting systems from roofs or ditches. Starting a perma-garden during or right after the main rainy season is very helpful since the land has more moisture, which makes the digging less labor-intensive, and because more rainwater is available for dry season storage. This also has an implication for households targeted for perma-gardening. Many projects target households with pregnant and lactating women for homestead gardening activities, but these households can be discouraged by the labor intensity of the activity. Therefore, the project promoted perma-gardening more broadly, with the hopes that households already have established perma-gardens and do not have to engage in heavy labor while women are pregnant or lactating.
- **Provide follow-up and ensure regular maintenance:** Initial acceptance of the perma-gardening approach is high among households. However, the training requires close follow-up on perma-garden preparation and seedling production and transplanting in order for the replication of the garden to succeed at the household level. The follow-up helps households address critical challenges, including overcoming weeds, maximizing perma-garden space, clearing holes and paths, and smoothing beds.
- **Encourage crop diversification:** It is important to encourage households to avoid mono-cropping in the perma-garden and instead to grow three to four different types of vegetables. This helps protect vegetables from fungal disease and insect invasion, and increases access to nutritious vegetables.
- **Adhere to the “close-to-home” rule:** Close-to-home perma-gardening is more effective and sustainable. In instances where households have perma-gardens away from their house, they often do not maintain their garden properly—as a result the crops over-mature, the gardens are not regularly weeded, and the consumption of vegetables is low.
- **Select the right land size for demonstration:** The project initially demonstrated perma-gardening approaches on larger plots for logistical purposes (it is easier to train a larger group on a larger plot), but some households then failed to understand that they could (and, in most cases, should) establish smaller perma-gardens for their own households. In some instances, their misconception that the garden needed to be large discouraged them from replicating the approach. Hence the project shifted approaches to demonstrate perma-gardening on small plots, and, in rocky areas, providing alternatives such as keyhole gardens.
- **Organize cooking demonstrations:** The goal of introducing perma-gardening to households is to improve their nutritional status. Facilitating cooking demonstrations is as important as increasing household vegetable production because some households are unfamiliar with cooking certain vegetables.



Photo by: Masresha T. © CARE Ethiopia, 2020

“It was so difficult to get fresh vegetables from weekly markets. Even when we sometimes bought the vegetables at high price, keeping them fresh for a week was a challenge. After we took training on perma-gardens, we have enough vegetables in our backyard. I sometimes sell some chard at the local market.” Shimber Ayalew, one of the early adopters of perma-gardening in Guba-Lafto Woreda, Amhara Region, says. (photo: Shimber with her husband and their son.)

Conclusions

- **Appropriate:** Perma-gardening can suit any household that aspires to harvesting vegetables year-round, with the exception of rocky mountainous areas such as Tigray, where keyhole gardens are often a better bet. Familiarizing PSNP households with perma-gardening contributes to improved food security as they can harvest a variety of vegetables from the small plot of land.
- **Value for money:** Delivering training is the biggest cost item in the process of familiarizing households with perma-gardening. Organizing a training of trainers for community facilitators, government development agents, and model households is cost effective in cascading the training to a large number of households. Considering long-term benefits for households, investing in perma-garden training is good value for money for them as well.
- **Nutrition and economic benefits:** Projects typically have one specific angle when promoting an activity—for instance, promoting perma-gardening for nutrition purposes and other activities for income. Households, on the other hand, make decisions based on multiple priorities, and typically balance nutrition and income as factors in their decisions. Hence the production of a variety of garden vegetables helps households access not only nutritious foods, but also increased incomes as they are able to sell surplus production to local markets. Complementary discussions on the benefits of nutrition, together with cooking demonstrations, help ensure that a significant portion of the vegetables are consumed.
- **Contribution to women’s empowerment:** Perma-gardening enables women to develop and improve their vegetable farming knowledge and skills. They also manage the harvest and generate income from the sale of surplus vegetables. Cooking demonstrations by men using the perma-garden products is contributing to an increase in household labor sharing by men.
- **Scalability:** Involving government extension staff and other stakeholders in the perma-garden trainings contributes to scaling up perma-gardens by neighbors of successful households.

Disclaimer:

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