

Feet On The Ground

This last year saw Fair Planet's activities in Africa influenced by both the safety challenges in East Ethiopia and by the global Corona virus pandemic. In November 2019, at a very early stage of the new training season, Fair Planet's teams had to leave East Ethiopia due to safety considerations, and all teams in Ethiopia and Tanzania had to leave their sites in March 2020, due to the pandemic.

These circumstances shifted Fair Planet's modus operandi to managing activities from afar, relying on the trained local staff to take full responsibility and lead operations on the ground.

We are pleased to report that the activities in all project's sites continued as planned, demonstrating that Fair Planet's approach has succeeded in transferring its intervention methodology to local public entities, and attesting to the durability of the Fair Planet initiative far beyond the project term.

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The results detailed below are the best testimony to the success and sustainability of the Fair Planet initiative.



Butajira – Ethiopia



Dire Dawa - Ethiopia



Morogoro -Tanzania

Direct Technology Transfer (Model 1.0)

In Israel, the team focused efforts on improving Fair Planet's Direct Technology Transfer Tools to Smallholder Farmers in the following vectors:

- Upgrading existing crop production guidelines for tomato & hot-pepper
- Developing new crop production guidelines for onion, cabbage, cauliflower, broccoli, butternut squash and cucumber
- Developing detailed training guides for Local Extension Staff consisting of 11 training modules designed to build their independent capacity to support smallholders across the full farming cycle, including forward planning for coming seasons.

In addition 2020 saw the development of new crop production guidelines designed for Stage II of Fair Planet's Farmer Training Program which focuses on the introduction of water-saving drip irrigation to further boost climate resilience with an addition enhancement of smallholder farmers' yields.

Technology Transfer to Local Entities (Model 2.0)

Fair Planet Model 2.0 refers to a new model of engagement, where Fair Planet trains local entities in target countries to then train smallholder farmers and the local extension system. In this model, outreach to farmers and capacity building of the local extension system is taken on by the local entity (and not by Fair Planet).

The first engagement of this model began in January 2019 with Tikkun Olam Ventures (TOV), for a project in Ethiopia initiated by American donors and the Israeli government. The project's goal is to introduce Israeli technologies, mainly drip irrigation, to smallholder farmers in Ethiopia, to assist them through market knowledge and connections, and to help them receive loans from Ethiopian banks. All this by partnering with locally based NGOs.

Fair Planet's role in the first TOV project has been the knowledge transfer of drip irrigation and related technologies in vegetable production to Ethiopian Business Advisers from TechnoServe (TNS), a locally based NGO, whose role it is to train smallholders in how to employ the equipment to become agribusiness farmers.

The demonstrated success of Fair Planet in implementing this model now allows it to upscale its reach to many more smallholder farmers in Ethiopia and beyond.



Fair Planet training local TechnoServe NGO staff in Butajira – TOV project

SUMMARY OF ACHIEVEMENTS

Private Sector Collaborations

In 2020 Fair Planet grew collaborations with its existing network in the private sector, and extended it with new partnership with Sakata. These collaborations now include 7 leading global companies: Bayer, BASF, East-West Seed, Enza Zaden, Limagrain, Sakata and Syngenta.

In addition, Fair Planet cooperates closely with local seed distributors and professional nurseries.

The significance of these collaborations is evidenced by the rapid growth in sales of high quality seeds and professional seedlings from local nurseries – x23 increase within 6 years (see data further below).

This not only demonstrates the continuing and growing involvement of the private sector which positively impacts smallholder farmers, but also further indicates that the impact of Fair Planet’s intervention has triggered the type of ongoing process of crop improvement which can serve as a key factor in the success of horticulture development.

Variety Trials

More than 200 vegetable varieties of tomato, hot-pepper, onion and cabbage were tested to date in Ethiopia, of which 20 were found suitable for local agro-climatic conditions, local farming practices, and consumer preferences.

These varieties were registered for commercial introduction by the seed providers and are now readily available to Ethiopian farmers.

In our pilot project in Tanzania, we have so far tested 27 varieties (13 tomatoes, 8 onion, 5 butternut squash and 2 cucumbers) and have recently started the second cycle of variety trials to validate initial results.

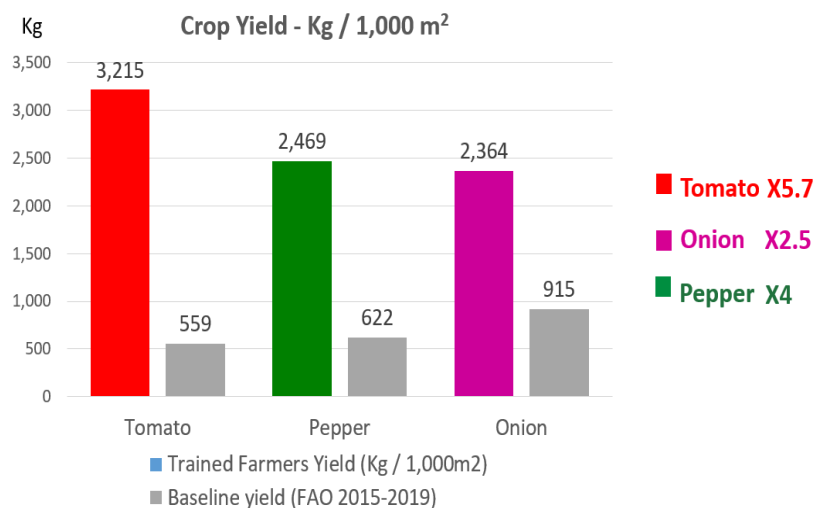
Training and Extension Program

Fair Planet operates 4 training centers in Ethiopia, in collaboration with Haramaya University and regional Bureaus of Agriculture (BoA). The training project built the extension capacity of more than 150 local experts and Development Agents (DAs) and trained more than 2,300 Lead Farmers from 65 villages in 10 counties in the project's regions.



The overall average yields of trained Lead Farmers from tomatoes, onion and hot-pepper were x 5.7, x 2.5 and x 4 higher, respectively, than Ethiopian national average yields for these crops (FAO Stat) (see Fig. below).

It is important to note that thanks to the high quality varieties used by these farmers, the quality of their yields has also dramatically improved, resulting in far better marketing potential, including to the cities where the vegetables now command significantly higher prices.



Training period 2015 - 2020

Profits from Vegetable Production

The average profits farmers generated from small plots of 0.1 Ha. – in only one production season – were as follows:

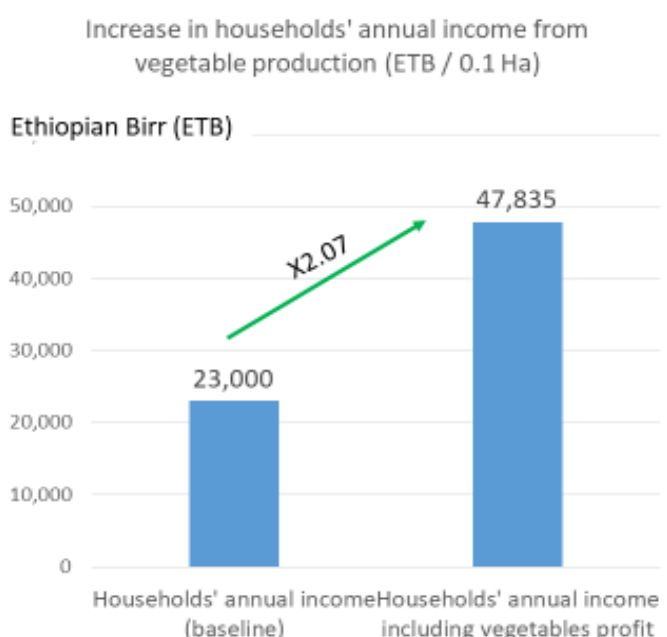
- tomato 14,536 ETB (€520)
- onion 13,164 ETB (€471)
- hot-pepper 33,299 ETB (€1,192).

The weighted average profit from all of these vegetables taken together was 24,835 ETB (€888).

Impact on Annual Households Incomes

Annual household income in rural Ethiopia was reported at 23,000 ETB (ET CSA survey, 2012). This serves as the baseline household income index for Fair Planet’s project.

Profits from high-quality vegetables increased farmers’ annual households income from 23,000 ETB to 47,835 ETB (€1,711), representing a X2.07 increase (see Fig on the right).



Extension Strategy and Sustainability

In the 2019-2020 season, extension activities in Butajira and East Ethiopia were solely led by Local Extension Staff from the regional BoAs trained by Fair Planet, who are highly committed to support their regions' farmers. The Dire Dawa BoA has trained 512 smallholder farmers and the Harari BoA has trained 200 smallholder farmers. The Extension Team at Dire Dawa has documented yields and income generated by their region's 512 farmers: yields of tomatoes, onion and hot-pepper using the varieties recommended by Fair Planet were x5.3, x2.7 and x4 higher than these crops' national average in all Ethiopia.

It is important to note that this group of farmers have generated a profit from small plots, in only one production season, which increased their families' annual income between x2.47 and x3.89 because of higher local food prices.

These outstanding results demonstrate that the trained Local Extension System is capable of providing continuing support of their region's farmers independent of Fair Planet's presence, and that both access to high-quality vegetable varieties and knowledge on improved farming practices are being sustainably implemented.

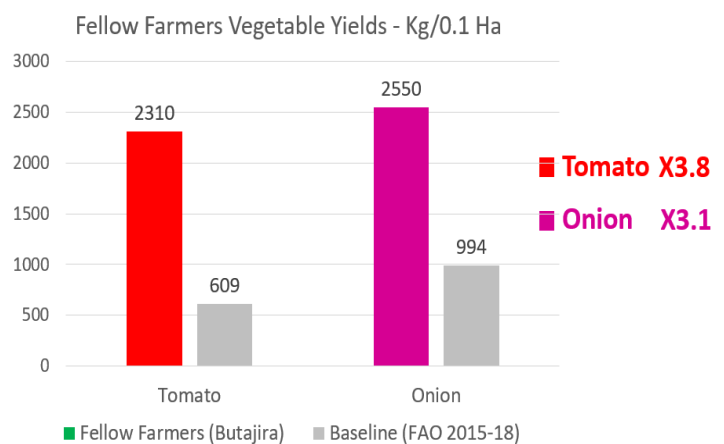
Diffusion and Indirect Impact

Across the project's regions, the evident benefits of using high-quality seeds together with improved farming practices have led to high diffusion rates and quick adoption by fellow farmers (those influenced by Fair Planet's Lead Farmers).

According to the Head of the Butajira BoA, the impact of Fair Planet's Training Program which began there in 2014 and ended mid-2018, reached more than 90% of the region's farmers (~40,000), who shifted to using high-quality seeds and improved farming practices.

In total, our local partners estimate that the indirect impact on fellow farmers has reached over 75,000 smallholder farmers.

Data on vegetable yields was collected by the TechnoServe staff in a 2019 baseline survey of 99 randomly selected fellow farmers in Butajira, two seasons after Fair Planet completed its training program in the region, and showed average yields of tomato and onion at x3.8 and x3.1 higher than the national average (Fig. on the right). These significantly higher yields of these fellow farmers demonstrate



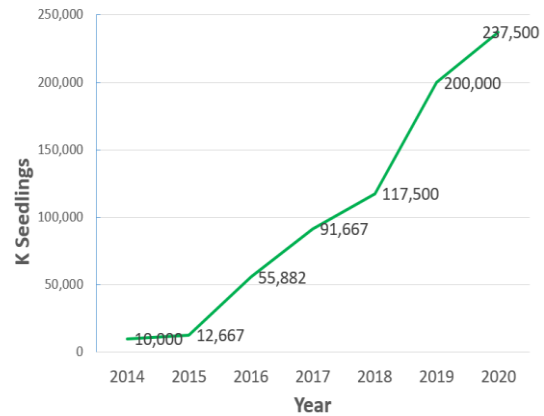
the long-term, sustainable impact of Fair Planet's project, showing that farmers continue to access improved seeds and continue to be supported by the BoA's Local Extension Team trained by Fair Planet during the project's initial intervention stage.

Sales of High Quality Vegetable Seedlings

Sales of high quality vegetable seedlings in Ethiopia increased dramatically, from 10M in 2014 to 237M by the end of 2020 (see Fig. on the right). This constitutes a x23 increase within 6 years.

On average, farmers use ~2,500 seedlings of these vegetable crops per 0.1Ha, and the 237M seedlings represent an estimated 95,000 plots of an average size of 0.1 Ha.

SEEDLING SALES BY PLANTRAIERS IN ETHIOPIA



The dramatic increase in seedlings sales occurred due to the following factors:

1. the demonstrated economic benefits of using high-quality seedlings prepared by professional nurseries
 - quality and uniformity of the seedlings
 - high-sanitation standards leading to healthy seedlings
 - strong root system that remains intact when transplanting
 - shortening of the crop production season vs. self propagation of seedlings by farmers
2. high adoption rates by fellow farmers in the project's regions and
3. marketing & sales efforts of participating seed companies & local nurseries.

The rapid growth in sales of both high quality seeds and seedlings demonstrates the growing involvement of the private sector and that with its intervention Fair Planet has started an ongoing, self-perpetuating process of crop improvement, serving as a key success factor for future horticulture development in Ethiopia, just as has occurred in the western world.



Female farmers in East Ethiopia & Smallholder farmer prepares his land for crop production

Training Program Quality Evaluation

A Measurement and Evaluation (M&E) report was prepared by Glocal of the Hebrew University, the project's external evaluator. Their findings show:

- that all surveyed farmers (Lead Farmers & Fellow Farmers) benefitted from increased vegetable productivity
- that they were able to access high-quality seeds/seedlings, and
- they had a ready market in which to sell their fresh produce

In addition, both Lead Farmers and Extension Staff stated that the training materials developed by Fair Planet were both clear and useful.

Social Impact of Fair Planet's Project

Glocal also evaluated the social impact of the project on farmers' families. They concluded that the project has led to sustainable economic growth for smallholder farmers, and that the dramatic improvement in household incomes has profoundly changed the lives of farmers' families across the following parameters:

- Nutrition: Improved nutrition due to increased consumption of animal protein (meat, fish, poultry, eggs) and fresh vegetables
- School attendance: Attendance of children has risen significantly
- Financial Independence: with income gains and diversification of income sources farmers have been empowered to make more independent financial decisions, including opening their first ever saving accounts

The indirect impact of the project is estimated to have reached 75,000 farmers' households – about 400,000 people.



Butajira local market

Ethiopian Government Policy Change

When Fair Planet began its operations in Ethiopia in 2012, experts from the Federal Ministry of Agriculture were reluctant introducing hybrid seeds, due to potential dependency of smallholder farmers on global companies.

Today, the Ministry of Agriculture fully supports the introduction of hybrid seeds, in part due to visits of the Federal Minister of Agriculture to Fair Planet's project sites and discussions held with BoA staff and Lead Farmers who explained the dramatic and undeniable benefits of using hybrid seeds adapted to Ethiopian local farming conditions.



On-farm weekly training of Lead Farmers by Fair Planet and a BOA expert