



AN UNPARALLELED YEAR: **TOV INVESTOR REPORT 2020**



> A Message from the Director

Today, 2.5 billion people across the world rely on agriculture to support their families, and the majority live on less than \$2 per day. To confront this enormous need, the founders of Tikkun Olam Ventures (TOV) asked ourselves: **what if we could combine the spirit of Jewish philanthropy with a sustainable business model to end poverty?**

The American Jewish Joint Distribution Committee (JDC) established TOV to radically transform what is possible for farmers and their families in developing countries as an initiative of the American Jewish Joint Distribution Committee (JDC). When we extend Israeli technology to smallholder farmers in developing countries, we do more than just increase crop yields. **We can break the cycle of poverty in our lifetimes.**

On behalf of JDC, I am proud to present this year's report on TOV. We could not achieve our vision without our incredible community of partners and, of course, the resilient TOV farmers. Above all, we would like to express our appreciation to TOV's donors for their leadership, philanthropy, and the confidence they have given JDC to take a chance on a new idea that has the potential to change the lives of millions.

During 2020, the coronavirus pandemic wreaked havoc on Ethiopia's economy and limited travel between Israel and Ethiopia. At the time of writing this report, internal conflict within Ethiopia triggered the outbreak of a civil war. Despite all of this uncertainty, 30 new farmers joined TOV, so there are now nearly 100 active plots utilizing Israeli agricultural technology to help these farmers lift themselves out of poverty. With increasing instability, growing food is an even higher priority to feed the country.

As I look back over the last three years since TOV's launch, I am inspired to see that Israeli technologies and entrepreneurial spirit are boosting the incomes of impoverished farmers in Ethiopia and strengthening their communities. We are on the way to proving that a market approach to international development can yield measurable, sustainable humanitarian results. **And around the world, TOV is raising awareness about Israel's impact on vulnerable populations.**

In the face of all of the challenges of 2020, the TOV team sees enormous potential ahead of us to transform rural Ethiopia as we bring this initiative to scale. Thank you for joining us on this journey.

Sincerely,
Arieh Doobov, Director of TOV

> TOV: Executive Summary

JDC, the world's largest Jewish humanitarian organization, also assists non-Jewish communities in distress in the spirit of "Tikkun Olam", repairing the world. The TOV model is based on a revolving fund: once TOV farmers lift themselves and their families out of chronic poverty, they replenish the reserve by paying back their loans for the next wave of farmers to receive Israeli drip irrigation and hybrid seeds. **This financially sustainable model is our path to feed the hungry and heal the world. Here are our ambitious goals:**

Strengthening Smallholder Farmers in Ethiopia

Most farmers use traditional techniques and grow only enough to feed their families. In an age of climate change with devastating effects on global agriculture, simple farming innovations have the potential to improve the crops and help farmers sell their harvest for higher prices. For most farmers, however, these innovations are not within reach. **We bring Israeli technology to farmers to reduce endemic poverty and chronic hunger for some of the poorest people on earth.**

Opening Markets for Israeli Entrepreneurs

Only 5% of Israeli agro-technology companies operate in developing countries, while there are 500 million farmers in Africa, Asia and South America. **TOV's market-based sustainable approach has a double bottom line: Opening a market of massive proportions to Israeli exports, while boosting Israel's response to the greatest challenges facing the globe.**

Raising Global Awareness of Israel

TOV builds bridges and gives developing nations an informed perspective on Jewish communities and Israel. We share our work with Israel to help smallholder farmers in Ethiopia with millions around the world through videos on outlets like [CNN](#) and [PBS](#). Our goal is to raise awareness about Israel and Jewish communal support to create a more equal world.

Plus, when it is safe to do so, we will continue to bring Israeli and Jewish volunteers to Ethiopia to help farmers implement new technologies in their fields, foster cross-cultural dialogue, and promote deeper understanding of Israel and global Jewish communities in the developing world.



Why Ethiopia? Ethiopia faces huge challenges and presents an enormous opportunity for impact, which made it the perfect pilot location for TOV. The annual growth rate of Ethiopia's economy – 10% – is among the fastest in Africa, yet 35% of its residents live in extreme poverty. Since 80% of the country's population makes a living from agriculture, investing in improving farmers' profits is what will make a huge difference.

> The TOV Program Model

TOV has three essential pillars that can easily adapt to other developing countries:

- **Access to Finance:** TOV created a fund of \$10 million that leverages Jewish philanthropic capital with financing from a local Ethiopian bank. These funds allow for unions and cooperatives in Ethiopia to make loans to farmers to purchase farming equipment. When farmers pay back their loans, TOV can make new loans to new farmers, creating a sustainable, revolving cycle. These loans were next to impossible for impoverished farmers to access before TOV offered them.
- **Access to Israeli Agro-Technology:** TOV makes agricultural expertise and equipment from Israeli agro-tech companies such as drip-irrigation systems, hybrid seeds and training accessible to Ethiopian farmers.
- **Access to Markets:** TOV focuses on cash crops like tomatoes, cabbage, onions, and hot peppers that can be easily sold. By building the infrastructure for value chains, TOV makes distant, more profitable markets accessible to ensure farmers a fair market price.



> TOV'S Partners

TOV coordinates with our longtime, trusted partners in both Ethiopia and Israel.

In Israel:

The Ministry of Economy and Industry's Foreign Trade Administration encourages Israeli companies to build business connections with smallholder farmers and develop agro-tech innovations to benefit emerging markets.



Professional partners: Agro-tech companies in Israel, the Center for International Trade and Cooperation at the Ministry of Agriculture and the NGO Fair Planet develop training materials and provide technical seminars and webinars to trainers in the field.



In Ethiopia:

The Timret and Melik Farmers' Unions, cooperatives, and smallholder farmers are the cornerstone of TOV.



Technoserve is an NGO that implements TOV by leveraging its history of working with Ethiopian farmers and cooperatives, and promoting business solutions in the developing world.



Oromia International Bank leverages TOV's philanthropic funds for loans to the farmers.



Government of Ethiopia: The Ministry of Agriculture and Natural Resources and the Ethiopian Agricultural Transformation Agency are vital partners in this work.

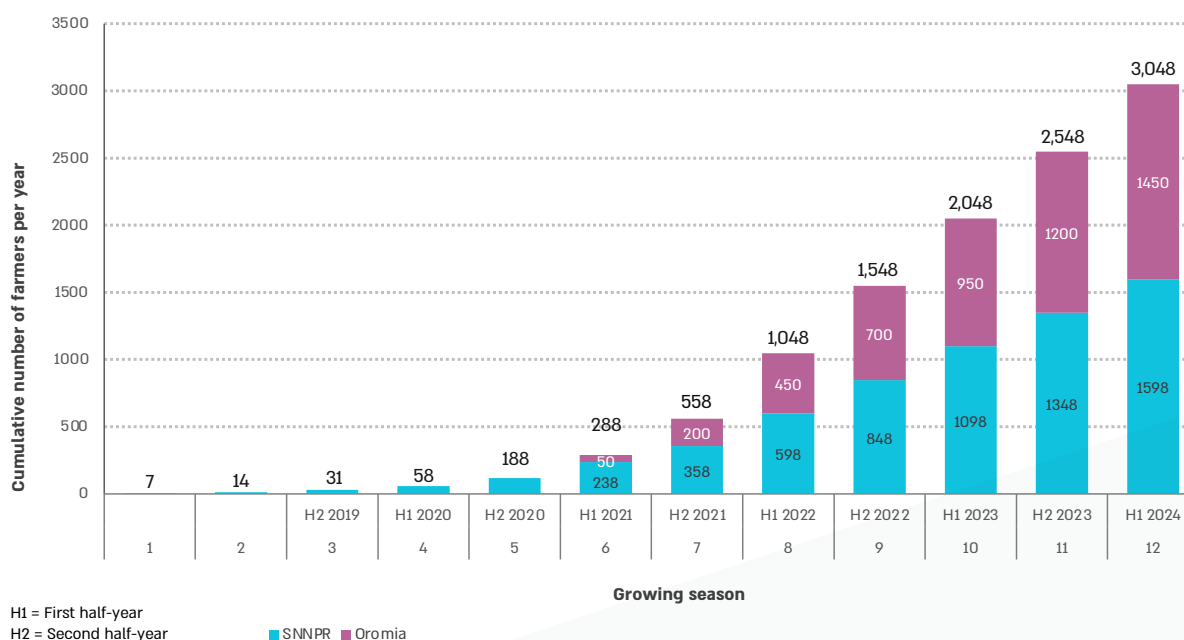


> Impact: The Results in Ethiopia

The TOV Program was launched in early 2018. Since then, the TOV team has closely studied the model and its feasibility. The results show that Israeli technology and training led to significantly higher yields for farmers and increased earnings, while TOV staff developed a sound infrastructure for transferring knowledge around the adoption of the new technologies.

In June 2020, the Program began its fifth growing season with two farming cycles per year. TOV added 37 new farmers at the end of 2020, bringing the total number to 93 farmers. Our goal is to reach 3,000 farmers, impacting a wider circle of 30,000 family members by 2024.

Growth Model for TOV in Two Regions of Ethiopia – SNNPR and Oromia



* Figures for 2020 and beyond are projections.



➤ **Mudin Mekuria**
the first farmer in
the TOV program

I'm lucky – drip irrigation is the pinnacle of technology. I see it as a way to improve my abilities. I think that it will change the face of the entire area. I believe it will help my farm and change my children's lives. I'm learning an enormous amount from the program's staffers. They come all the way to me, out of their comfort zone, to support me in adopting the technology."

Israeli experts have run dozens of trainings on the proper use of drip-irrigation systems; system installation and maintenance; pest control and treatment of disease. Just last year, a total of 650 farmers, family members, and neighbors took part in the trainings.

Training the farmers in irrigation is bearing fruit: the farmers understand that there is no need to flood their crops with water, and irrigation dramatically reduces water consumption, drastically lowering the costs of labor and fuel. Farmers recognize that the hybrid seeds yield improved vegetables and have a longer shelf-life. The combination enables the farmers to deal more efficiently with diseases and parasites. Ongoing technical support proved crucial in answering farmers' questions when they began the TOV journey.

A training seminar in farmers' fields in Ethiopia by Israeli Ministry of Agriculture experts.

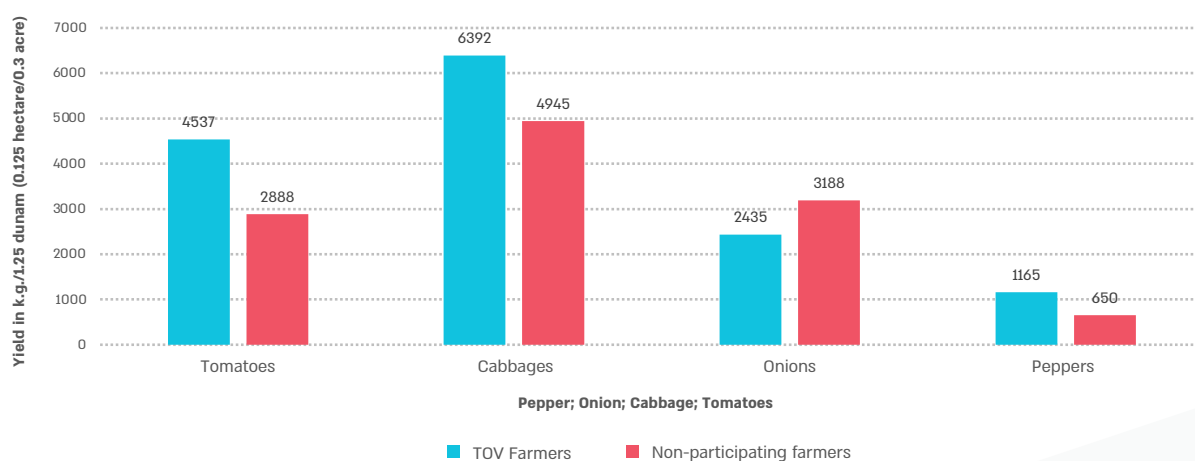


> Impact in Ethiopia: An Increase in Crop Yields

The TOV team is excited to report that the yields of tomato, cabbage and pepper among TOV farmers were larger on average than those of their neighbors. The largest increase – 64% – was seen in tomato crops. TOV successfully helped farmers harvest more crops, meaning they earned a higher income and could attain higher levels of education and health for their families.

A total of 165,546 seedlings of Cabbage, Tomato and Pepper seeds were distributed to farmers.

**Comparison of vegetable yields between TOV farmers
and non-participating area farmers:**



* The performance of onions was lower due to the late arrival of seedlings from the nursery.

Tomato yields at the TOV demonstration center in Gogeti were four times higher than the average TOV farmer. This reflects the enormous potential of correctly using hybrid seeds and the irrigation system and more precise training and support for the farmers.

> Impact: The Financial Model

Most TOV farmers have succeeded in making their first loan payments, thanks to the impact of the technology to increase their incomes, and the farmers commitment to TOV. The loan amount per farmer currently ranges between \$3,000-\$3,500. To date, out of our first 40 active farmers, 80% began to pay their first loan payment and 32.5% started paying their second installment.

The reasons for the farmers who have not yet paid include ethnic violence, illness and family disputes over land ownership. TOV is strengthening communication with participants and improving the terms of the loan, particularly the interest rate, so that more farmers can make the payments.

“With the knowledge I’ve acquired through TOV, I learned that I only need to open the pipes (of the irrigation system) once and make sure that all the plants are getting enough (water and fertilizer). This helps me get quick results.”

Temesgen Worku, Program Participant.

Temesgen Worku on his land accompanied by TOV’s local support team after installation of the irrigation system.



Temesgen’s son shows off a cabbage of impressive size and quality after harvesting.



The irrigation system on Temesgen’s land.



> Abebech Tesema's Story

Abebech Tesema, 45, is a veteran farmer who joined the program in April 2019. She cannot read or write, but this has not stopped her from becoming a leader in her farming community. She is an active member of a farming cooperative and Abebech trains other members to pass on knowledge she acquires through TOV. She serves as a role model to women farmers in the community and encourages them to adopt farming innovations.

Her decision to join TOV is an expression of Abebech's ambition to improve her family's future and her willingness to try new farming techniques. Her 12-acre farm is the main source of income for her family of six and she now uses TOV techniques and equipment.

Like most community members, her house is not connected to electricity and the water she uses for farming and drinking comes from a well. Increasing her income will allow Abebech to employ other members of the community, vary the crops that she grows and buy additional farming equipment to make an even bigger profit from her farm.



> Impact: The Results in Israel

Since 2018, Israeli equipment and technology worth more than half a million shekels have been purchased through TOV. This includes: 80 irrigation and fertilizer systems from companies Rivulis, Metzer and Netafim; hundreds of kilograms of vegetable seeds from the HaZera company; and hundreds of rolls of trellis wire from the Tama Group.

50 Israeli companies expressed interest in TOV's Innovation Journey

25 companies submitted an application

5 companies participated

The Israeli Innovation Journey

In partnership with the Foreign Trade Administration and the Pears Program for Global Innovation, TOV launched the Innovation Journey to help Israeli companies, entrepreneurs and startups penetrate developing markets by bringing them to the field. TOV selected companies with agro-technology products in solar energy, post-harvest treatment, refrigerated-storage solutions, and biological pest control after mapping the most urgent needs.



Ten representatives of Israeli companies traveled to Ethiopia in November 2019 to study the needs, challenges and opportunities of the smallholder farmers market. They were joined by representatives of JDC, the Pears Program, TechnoServe, Fair Planet, and the Ethiopian Ministry of Agriculture at TOV's demonstration center in the Butajira Region.

“Following the Israeli Innovation Journey, a connection was made for us with the largest active distribution firm in Africa, through which we are running a pilot in Ethiopia and Kenya. The trial in Ethiopia is in full swing and we are waiting for the results and outcomes.

Itamar Chaikin, CFO, BotanoHealth



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The visit of the Israeli Innovation Journey mission to TOV farmers, unions and local distributors in Ethiopia raised many technical questions, especially among the biological pest-control companies, Agro-Shelef and Botano-Health (1), and solar pumping companies AgroSolar (2) and Comet ME (3). Following the delegation, two days of seminars were held in Israel that provided tools for working with smallholder farmers in developing markets through lectures from experts (4).

> Major Challenges: the COVID-19 Crisis, Civil War, & Locusts

- Ethiopia is ranked 159 out of 190 countries by the World Bank in doing business. TOV staff have experienced bureaucracy, regulation of imported products, and long waiting periods for foreign currency to purchase Israeli technology, made worse by the pandemic. Flight restrictions created shortages of imports of fertilizers, chemicals and seeds.
- After realizing that the farmers did not have experience in installing and operating drip-irrigation systems, TOV recruited volunteers to work in the field until they returned to Israel because of the COVID-19 pandemic.
- As the TOV team could not bring Israeli experts to Ethiopia for training sessions in the field, we explored ways for Israeli experts to transfer knowledge remotely to local training teams by video and other digital media.
- The local Health Ministry's directives to avoid large gatherings created a gap in TOV's ability to provide farmers with ongoing technical support. TOV distributed kits with hand sanitizer and face masks to farmers and trainers at socially distanced outdoor gatherings and installed a hand washing station to prevent the spread of COVID-19.
- Limits on movement and transportation routes within Ethiopia led to a lack of access to markets and a decline in prices. Agricultural unions in partnership with TOV rallied to help the farmers by providing vehicles to transport the produce to more distant markets.

There is an ongoing locust crisis and civil war in a different region of Ethiopia. The TOV team continues to monitor the situation while a core objective of TOV – higher crop yields – becomes all the more critical as the demand for food increases across Ethiopia.

> Looking Ahead

Despite the challenges we face, the TOV team has big dreams of what we can achieve together, and we are just getting started. Here's our vision for the future:

Increasing new technology, participation and income of farmers

- TOV staff continually look for new technologies to share with our farmers. In the coming season, we are considering installing a new Israeli NDRIP irrigation drip system and an Israeli technology of using synthetic mulch instead of trellising to grow tomatoes. All of these innovative changes would significantly reduce initial investment costs to the farmer and increase yields.
- TOV will grow by several hundred farmers by the end of 2021 and roll-out a knowledge transfer and technical support system.
- We will continue to measure TOV's impact on participants' health, education, and food security as well as gender equality compared with baseline data with the expectation that their living standards will improve significantly from participating in TOV.

Bringing the Israeli Agro-tech industry to the smallholder farmer market

- Within three years, TOV will hold five Israeli Innovation Journeys to Ethiopia and expose more than 150 companies to the base-of-pyramid market. TOV will also host trainings in Israel, providing tools to Israeli entrepreneurs working with farmers in developing markets.
- TOV launched a Hebrew language podcast that will target 425 companies and entrepreneurs to expose listeners to the potential and challenges of penetrating emerging markets.
- We will continue to raise awareness about Israeli goodwill and innovation in the developing world as we have through past media spotlights on CNN and PBS.

Our Vision & Gratitude: TOV has embarked on an ambitious path to improve the lives of as many farmers as possible – and share Israel's story with the world. The TOV team, JDC board, and our partners around the world thank all of the supporters to TOV who make it possible to tackle the greatest challenges on earth, proudly as a Jewish organization.



CVK Design



**For further information or questions,
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