IMPROVING LIVELIHOODS, REMOVING BARRIERS

Investing for Impact in Mtanga Farms
Mtanga Farms

U.K.-based investment company Lion’s Head Global Partners and U.S.-based Calvert Foundation invested in a Tanzanian farming operation called Mtanga Farms Ltd. in 2009 and 2010, respectively. The investors helped Mtanga Farms rehabilitate agricultural land and enter a promising new market to sell high-quality potato varieties for use as seed material, replacing lower-quality seeds to produce higher yields for smallholder farmers. In 2011, Nigerian investment company Heirs Holdings Ltd. and its partner organization, the T ony Elumelu Foundation, invested additional capital to grow the business.

This case study documents the decisions and activities of these four investors and Mtanga Farms’ management as they balanced diverse appetites for financial and social returns. Calvert Foundation and the T ony Elumelu Foundation, two members of the Global Impact Investing Network (GIIN) Investors’ Council, and their partners, Heirs Holdings and Lion’s Head Global Partners (LHGP), were attracted by the opportunity to invest in Mtanga Farms because it offered great potential to help smallholder farmers, or those who typically cultivate less than two hectares of land, improve their quality of life. The investors’ emphasis on the long-term social impact possibilities of this deal substantially influenced the structure of Mtanga Farms’ underlying business model, which is designed to ensure that the farm can remain commercially viable to create sustained impact after the investors exit. These impact goals are also reflected in both the investors’ and farm management’s commitment to developing a performance measurement framework that can help evaluate the social returns generated by the seed potato initiative.

At-A-Glance: Mtanga Farms

LOCATION: Outskirts of Iringa, Southern Tanzanian Highlands
FARM SIZE: 2,500 hectares
EMPLOYEES: 50 permanent and 50 seasonal
LINES OF BUSINESS:
- Row crops: barley, maize, soya, wheat
- Livestock: cattle, sheep
- Seed potatoes
DATE OF FIRST INVESTMENT: Q4 2009

Mtanga Farms: Recognizing an Opportunity for Impact

Mtanga Farms was founded in 2008 by Jilanjo Ltd., a group of Tanzanian-based entrepreneurs. Rick Ghaui, Alan Mayers, and Richard Reynolds identified an opportunity to meet the vast need for disease-free seed potatoes by farmers in their home country. Around that time, there were 150,000 smallholder farmers cultivating potatoes in Tanzania.
Mtanga Farms

Improved varieties of planting material or clean stock—free of viruses and pests—had not been introduced for more than 30 years.¹

Located in the highlands of southern Tanzania, the farm covered 1,600 hectares of hilly land that had stood idle for 20 years, having last been used to grow barley for the state-owned brewing company. Mtanga Farms’ management originally planned to import four improved seed potato varieties developed in Kenya to start a domestic clean seed cultivation and retail operation to dramatically improve the potato yields of a future smallholder farmer clientele. However, before Mtanga Farms can sell seed potatoes to smallholder farmers, it is legally required to register the new varieties with the Tanzanian government, a process requiring several seasons’ worth of data from growing and testing the potato varieties in domestic soil. At the time of publication, Mtanga Farms was in its second season of operations and had grown into a 2,500 hectare mixed farming operation with 50 permanent and 50 seasonal employees. The process of registering the improved seed variety with the Tanzanian government is underway.

Forming the Initial Impact Investment

LHGP first approached Mtanga Farms in June 2009, when the seed potato operation was still in its concept stage. At the time, LHGP Partner Clemens Calice traveled to East Africa to identify and conduct due diligence on potential investees. As Calice evaluated the need for clean seed potatoes in Tanzania, he deemed Mtanga Farms an attractive investment opportunity and one which presented a compelling potential for social impact. In a similar seed potato project in Kenya, access to clean seed resulted in tripled yields, leading to a doubling of income for smallholder farmers.² The Kenyan project also demonstrated that the required registration of a new variety of seed potato with the country’s government removed a barrier to entry for the entire market and encouraged additional seed producers to become suppliers of the new, improved variety.

For Calice, the opportunity to combine a direct social impact (increasing smallholder farmer income) with a systemic one (catalyzing economic growth by removing a systemic barrier to quality seed potato access) made Mtanga Farms intriguing from an impact investment perspective. As Calice noted, “It is rare to find a project where the development impact reaches far beyond its own activities by catalyzing the transformation of an entire sector. That’s what attracted LHGP to Mtanga’s seed potato project from the outset.” LHGP made an initial investment in Q4 2009 because it believed that Mtanga Farms combined a commercial agriculture investment opportunity with positive benefits for smallholder farmers.

LHGP had been initially introduced to Mtanga Farms by TransFarm Africa, an initiative which received seed funding from the William and Flora Hewlett Foundation and is based at Aspen Global Health and Development within the Aspen Institute. TransFarm Africa seeks to provide smallholder farmers, entrepreneurs, and consumers greater access to Africa’s commercial sector. It does so by partnering with mid-sized private sector actors to identify the systemic

² Ibid.
⁴ Ibid.
⁵ Ibid.
barriers to managing and investing in African agricultural businesses, and aims to change policy for their removal. It hired LHGP to create, structure, and manage the private sector linkage of its work.

The Hewlett Foundation approached Calvert Foundation with information about Mtanga Farms because it believed Calvert Foundation’s experience in impact investing and investment management would be a great asset. Soon after, the Hewlett Foundation awarded Calvert Foundation a grant to broadly support the development of the latter’s impact investing activities in African agriculture. The grant was sequenced to allow Calvert Foundation to participate as an early equity investor in Mtanga Farms, which it became in March 2010. As part of this relationship with the Hewlett Foundation, Calvert Foundation took the lead in developing a metrics and monitoring framework to measure the social and financial impact of the deal, with the intention that it could then be applied towards its other investments.

Creating a Business Model for Social Impact

The potential for increased smallholder farmer income resulting from sales of the improved seed potato yields was a key factor in both LHGP and Calvert Foundation’s decisions to invest. The investors determined early on that the social outcome of the seed potato project depended on the ability of the farm to survive as a commercial sales operation after their eventual exits. As a result, the seed potato project is one piece of Mtanga Farms’ multi-faceted business, with interdependent components designed to facilitate both financial sustainability and social impact.

Investors and Mtanga Farms’ management quickly realized that the seed potato business would require significant upfront investment in labor and resources. To start the project, Mtanga Farms’ management planned to import four potato varieties from Kenya, where they were being grown successfully by smallholder farmers. However, the varieties were not registered in Tanzania. Government regulations required five seasons of in-country field trials before a variety could be submitted for registration. The complicated, time-consuming process appeared formidable, but registration was a prerequisite to importing and multiplying the improved stock. Having surfaced one of the key systemic barriers to successful project implementation, in mid-2010 LHGP turned to TransFarm Africa’s policy initiative team for assistance.

The subsequent “Removing the Barriers Task Force” created by TransFarm Africa consisted of an agriculture expert, a trade lawyer, and Calice. In late 2010 and early 2011, the team worked with the Tanzanian Ministry of Agriculture and other authorities to clarify regulations around importing new varieties of seed potatoes. The team eventually discovered an agreement by the East African Community (EAC), a regional intergovernmental organization, by which one country within the EAC could accept the crop field trial data of another EAC country in order to expedite seed registration. Thus, the Kenyan potato seed trial data was acceptable in Tanzania, meaning Mtanga Farms could shorten its field trials from five seasons to one. As of the writing of this case, the trial season was underway.

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CASE STUDY

Mtanga Farms

Conducting the field trial and collecting the resulting data required Mtanga Farms to make substantial upfront investment prior to receiving corresponding income. After seed registration, successful sales are dependent on customer conversion. Smallholder farmers in the region are accustomed to using home-saved seed for their potato crop. Though lower-yielding, the home-saved seed is free, and Mtanga Farms’ management will need to demonstrate to smallholder farmers the potential of the improved varieties to increase yields, and subsequently incomes, before farmers will be convinced to spend money on the new seed. It may take several years for the seed potato business line to reach its target revenues, so the investors have a longer-term view of their investment.

Mtanga Farms’ owners therefore decided to diversify operations to create a broader earnings base. Thus, the farm now also raises cattle and sheep, and grows crops such as barley, maize, soya, and wheat to sell in local and regional markets. These business lines are likely to generate earnings more quickly than the seed potato business, and the farm has already secured contracts with local buyers to guarantee the sales of some of its crops. Though the investors and farm management intend the seed potato business to generate a significant portion of overall farm revenue, through these other business lines the farm can break even without it.

If successful, Mtanga Farms will continue to sell seed potatoes after the investors exit, and the owners’ registration of a new seed potato variety in Tanzania will accelerate the growth of an industry with multiple, competitive suppliers, resulting in product choice for smallholder farmer customers.

IMPACT INVESTMENT TIMELINE

Nearly US$2 Million in Equity Investment

- The Tony Elumelu Foundation
- Heirs Holdings
- THE TONY ELUMELU FOUNDATION & HEIRS HOLDINGS INVESTMENTS

2008 2009 Q3 Q4 2010 Q2 Q3 Q4 2011 Q2

JILANJO PARTNERS FOUNDS MTANGA FARMS LTD.
LHG BEGIN DUE DILIGENCE
LHG APPROACHES THE TONY ELUMELU FOUNDATION
Preparing for Growth: A Second Round of Financing

After its first commercial season ended in September 2010, Mtanga Farms needed additional capital to expand its livestock operation. In late 2010, LHGP approached the newly established Tony Elumelu Foundation (TEF) to propose a follow-on investment in Mtanga Farms for the expansion of operations and the seed potato project. Founded by the successful Nigerian entrepreneur Tony O. Elumelu, MFR, and headed by Dr. Wiebe Boer, TEF seeks to promote business leadership and entrepreneurship in Africa and is the first African foundation seeking to utilize impact investing as a mechanism for change in the continent.

Upon examination, Boer found Mtanga Farms compelling as a sound business opportunity. He passed the proposal along to Sam Nwanze, Chief Investment Officer at Heirs Holdings, Elumelu’s more commercially-minded investment company, which also manages TEF’s impact investments. Nwanze thought that the investment was financially attractive for Heirs Holdings, and pursued due diligence on Mtanga Farms in Q1 2011.

As Nwanze became convinced that Mtanga Farms offered not only attractive financial returns, but also held significant potential for increasing the welfare of the smallholder farmer customers, he returned to TEF for discussion. As partner organizations, Heirs Holdings and TEF complement each other in financial and social priorities, and Mtanga Farms offered appealing returns for both. Their aligned organizational and functional structures allowed them to negotiate and invest together. Nwanze took the lead structuring the deal, and in April 2011 Heirs Holdings and TEF jointly announced investments in Mtanga Farms.

Neither organization had previously invested either in agriculture or outside of Nigeria, but both sought to spur African-based economic growth. For them, agriculture was a priority sector for catalyzing development. At that point, Mtanga Farms had completed its first season of planting, and was smaller than a typical commercial farm and therefore closer to its smallholder farmer customers. The farm was thus a strategic fit for Nwanze and Boer, who sought investment in a young enterprise from which to learn about the agricultural sector as it grew, and one which also had potential to scale and drive transformative economic growth. It also allowed them to make a relatively small investment while offering an attractive internal rate of return and growth potential. Furthermore, by investing in agricultural production, the most developed part of the agricultural value chain in Africa, Heirs Holdings and TEF will gain insights into the upstream and downstream portions of the value chain, where they also see opportunities to drive prosperity for the continent.

“Mtanga Farms is an example of how responsible foreign investment in agriculture can be commercially viable, environmentally sustainable, and also create substantial social impact through the benefits to smallholder farmers and the contribution to food security,” said Dr. Wiebe Boer, TEF’s chief executive. “In this case because the financial return potential was attractive, we were able to catalyze private funds into an effort that has a substantial development impact.”

The initial investments by LHGP and Calvert Foundation laid the groundwork that enabled the investments by Heirs Holdings and TEF. In addition to the social impact and financial potential of the investment itself, Heirs Holdings and TEF were attracted to the complementary strengths of the initial investors. LHGP’s familiarity with investors’ concerns
and its skill in creating an investment proposal made the opportunity easy to evaluate. Calvert Foundation’s skills and experience in impact investing ultimately strengthened Heirs Holdings’ and TEF’s confidence in the Mtanga Farms investment.

A BREADTH OF IMPACT GOALS

**Farmer & Farm Level Impact**
- Increase smallholder farmer access to markets and improved seed potato varieties
- Increase smallholder farmer potato yields, ultimately improving their incomes and livelihoods

**Economic Impact**
- Empower an African business to be a primary generator of economic development on the continent
- Catalyze economic growth in Africa through investment in transformative sectors such as agriculture, and remove a systemic barrier to development

Measuring Social Impact

**INITIAL STEPS FOR IMPACT MEASUREMENT**

Prior to their investment into Mtanga Farms, Calvert Foundation contracted Total Impact Advisors (TIA), an advisory firm which specializes in sourcing socially and financially profitable investment opportunities, to create a social and environmental performance assessment framework for the investment. Having identified the business model and thesis by which Mtanga Farms would create impact, the next step was to employ a measurement framework to ensure the farm was achieving progress towards these goals.

Calvert Foundation, LHGP, and TIA sought to minimize the farm’s reporting burden to ensure both that metrics were collected and that the core activities of the farm were not compromised. The investment’s initial measurement framework showed two levels of social impact. First, the investment would directly result in new jobs and increased income opportunities at the farm itself. Second, the investment would lead to an indirect improvement in the livelihoods of Mtanga Farms’ customers, the smallholder farmers who would purchase its seed potatoes.
In designing the framework, TIA focused on performance data that would be relevant to, and could inform, business decisions at the farm. For example, data on farmer potato sales would also be useful to Mtanga Farms’ seed potato marketing as the farm faces the difficult work of encouraging smallholder farmers accustomed to using their own home-saved seeds to switch to seed that must be purchased. Together with the farm’s management, TIA chose performance indicators that would be regularly assessed to determine the investment’s financial and social performance. There were two sets of metrics categorized by type of impact: Production and Operations (farm-level data) and Farmer Outcomes (smallholder farmer-level data). The initial framework contained 12 farm-level indicators and 10 farmer-level indicators.

**RE-EVALUATING METRICS AND BUILDING THE FRAMEWORK**

Calvert Foundation’s commitment to impact measurement prompted it and its fellow investors to revisit the metrics framework for Mtanga Farms during the summer of 2011, prior to implementation of any measurement process. Calvert Foundation revisited data collection priorities given the farm’s operating realities after its first season of production and also took steps to align the metrics, where possible, with the GIIN’s Impact Reporting and Investment Standards (IRIS) so that future data collected could be aggregated and benchmarked with other impact investments and would contribute to the knowledge base of the impact investing field. As a result of this work, a second, revised measurement framework was introduced in August 2011.

“As impact investors we seek to support the growth of a financially sustainable business contributing to improvements in food security and smallholder farmer livelihoods. It is our hope that through our investment in Mtanga Farms and our work in developing a framework for tracking social and business performance metrics, other investors will recognize the high impact opportunities that arise from investment in agriculture,” noted Lisa Hall, President and CEO of Calvert Foundation.

Like its predecessor, the current framework contains indicators categorized to measure impact generated at both the farm level and at the smallholder farmer level. At the time of writing, Mtanga Farms’ management was piloting the enhanced measurement and evaluation metrics. During the pilot, farm management and investors will test the framework to evaluate its feasibility and utility and then make refinements by updating the language as needed and eliminating or reframing those indicators for which data is unavailable.

**PROXIES FOR IMPACT**

A key challenge facing the investors and farm management is how to capture the direct impact of Mtanga Farms’ operations, such as sales of seed potatoes to smallholder farmers, and its broader impacts, such as increases in smallholder farmer welfare and standards of living, in one measurement tool and with indicators that are also useful to business operations.

Determining farmer livelihoods and lifestyle changes is also useful for Mtanga Farms’ sales business, but determining the right performance indicator proxies necessitated a creative approach. The investors and the farm management sought to identify where an increase in smallholder farmer income was most likely to be spent. They used insights from farmers and
Mtanga Farms’ management, as well as observations of nearby villages in which employment opportunities were increasing. For example, one indicator intended to measure increased livelihoods for smallholder farmers captures farmer motorbike ownership, as farm management and the investors observed that personal transportation was one of the key ways farmers spent increased earnings. This indicator may help measure longer-term standard of living changes that matter to the investors.

The investors readily acknowledge that it is difficult to attribute an increase in a welfare indicator such as motorbike purchases directly back to their investment in Mtanga Farms, but direct attribution is not currently a key priority. Instead, the investors seek to measure quantifiable and verifiable indicators which can serve as proxies for increased income. The pilot will determine whether the framework itself is viable and relevant to the Mtanga Farms’ context.

Developing an effective and efficient metrics framework is an iterative process, and the investors are dedicated to making it more concrete as they gather information from the seed potato business launch and growth. The metrics framework and business will grow together—the growth of the business may also help identify other social benefits produced by Mtanga Farms that can be incorporated into the framework. For example, at this time the metrics framework focuses on the immediate impact of Mtanga Farms as a business and on its customers, but does not include performance indicators that help measure the catalytic economic growth that is particularly important to Heirs Holdings and TEF. In this early stage of the business, the exact mechanisms by which this broader change may occur are unknown, and the investors may consider incorporating macro-level indicators when Mtanga Farms has achieved greater scale.

**PROCESS FOR DATA COLLECTION**

Given that the measurement framework is designed to be integrated into Mtanga Farms’ business model, its managers and investors envision that data collection will be conducted by the farm’s seed sales staff during sales and training visits to smallholder farmers. These visits will be necessary to distribute the seeds and educate farmers about the value of the new seeds. In doing so, these workers ensure the success of the business. By embedding measurement into the existing smallholder farmer outreach model, data can be collected systematically and effectively, and the model for collection can be scaled as the business grows. The investors aim to reach as many smallholder farmers as possible, and are currently refining the design of the sales and distribution model for the seed potato business. The investors and management are simultaneously evaluating the appropriate mechanisms by which data can be collected from each of these distribution channels in a time frame that is feasible and useful for the ongoing measurement efforts.

The pilot will help refine not only the performance indicator set, but also the data collection process and method. Effective implementation faces a number of challenges, including translating a framework developed in English into Swahili, and then translating data back for reporting to the investors. Additionally, the investors are determining the methodology most appropriate for farm management to capture the required data, given that data collection will occur in remote areas where many of the smallholder farmer customers will be located.
Conclusions

As partners in an impact investment, Calvert Foundation, Heirs Holdings, Lion’s Head Global Partners, and the Tony Elumelu Foundation demonstrate the commitment of an emerging class of investors to deploy capital into the African agriculture sector in a way that is beneficial for local residents. Lessons and learnings from this investment include:

- **Mtanga Farms has benefited from the expertise of a diverse group of investors and partners.** LHGP’s experience with due diligence and deal structuring ensured that the investment was under reliable and knowledgeable management. TransFarm Africa’s policy team and the “Removing the Barriers Task Force” facilitated importation of potato seed varieties from Kenya and will continue to further the policy dialogue with respect to removal of systemic barriers to growth. Calvert Foundation’s reputation and experience in impact assessment gave legitimacy to the investment’s social impact, which helped unlock expansion capital from Heirs Holdings and TEF.

- **The potential for realizing social returns was a driving factor in the investors’ decisions to pursue the investment opportunity.** Mtanga Farms’ successful introduction of improved seed potato varieties would result in the first new registered varieties in Tanzania in over 30 years, facilitating improved smallholder farmer crop yields. It would also remove an industry-wide market barrier, opening the seed market to many potential entrepreneurs who could also produce the new seed variety.

- **Mtanga Farms’ business model is structured to combine social and commercial impact.** Although LHGP was interested in funding a seed potato project for the sake of social impact, Mtanga Farms would have been a riskier venture if it were devoted to a single crop. Mtanga Farms’ commercial viability is essential to its successful sale of seed potatoes and achievement of social impact. The other lines of business not only contribute to local food security, but also diversify the farm’s earnings so it can thrive through the prolonged seed potato registration process and field trial. If Mtanga Farms is successful in its efforts to sell seed potatoes and a variety of other crops, its impact will continue after these investors exit.

- **The investors’ commitment to social impact is demonstrated by their dedication to measuring it.** Though work to refine an appropriate measurement framework and the data collection process is at an early stage, the investors have prioritized these tasks and the iterative learning approach required to make impact measurement a reality.

Even with this focus, the work of these investors is not over. With the participation of a diverse set of investors and the dedication of its managers, Mtanga Farms will try to improve the lives of the Tanzanian rural poor and unblock a market that has been inactive for decades.
CASE STUDY

Mtanga Farms

The Investors

CALVERT FOUNDATION

Calvert Foundation is a U.S.-based nonprofit impact investor that raises capital from the public through the sale of the Calvert Foundation Community Investment Note, a security that provides a social and financial return. With over US$500 million under management, Calvert Foundation provides investors with a social and financial return by investing in organizations dedicated to empowering people living in disadvantaged communities. Throughout its 15 year history, Calvert Foundation has invested in sectors such as affordable housing, community development finance, microfinance, sustainable agriculture and Fair Trade, and social enterprise. Mtanga Farms is Calvert Foundation’s first equity investment in African agriculture.

HEIRS HOLDINGS LTD.

Heirs Holdings is an African investment company focusing on principal investments in a variety of sectors across Africa. The company believes the foundation of prosperity lies in creating businesses that have the ability to continuously add value to all stakeholders. Seeing an abundance of rich investment opportunities in Africa, Heirs Holdings invests in strategic assets and sectors that will be financially rewarding as well as create wealth for Africans.

LION’S HEAD GLOBAL PARTNERS

Lion’s Head Global Partners is a London-based boutique merchant bank focused on emerging markets and development with a specific geographic concentration on Africa. Clients include governments, corporations, fund managers, and foundations, and the firm’s expertise centers on emerging areas such as impact investment, Africa, carbon and climate change, and agriculture.

THE TONY ELUMELU FOUNDATION

Headquartered in Lagos, Nigeria, the Tony Elumelu Foundation’s impact investments focus on supporting endeavors that will create jobs and provide services for people at the base of the economic pyramid in Africa. The Foundation seeks financially sound investment opportunities that can catalyze economic change on the continent or transfer innovation from one part of Africa to another.
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Global Impact Investing Network

The Global Impact Investing Network (GIIN) is a not-for-profit organization dedicated to increasing the scale and effectiveness of impact investing. The GIIN builds critical infrastructure and supports activities, education, and research that help accelerate the development of a coherent impact investing industry. The GIIN’s programs center around four key initiatives. The GIIN Investors’ Council is a diverse, global membership group comprised of leading impact investors with a goal of enabling rigorous impact investments, efficient and enhanced social and environmental performance, and deployment of private investment capital to address social and environmental challenges. The Terragua Working Group within the Investors’ Council is focused on impact investing in sustainable agriculture in sub-Saharan Africa. The GIIN’s Impact Reporting and Investment Standards (IRIS) is a common language for measuring and tracking the social, environmental, and financial performance of mission-driven organizations. The GIIN’s ImpactBase is an online global directory of impact investment funds active in the impact investing industry, created to reduce search costs and bring order to the fragmented marketplace. The GIIN Outreach initiative elevates the profile of impact investing by highlighting industry progress and best practices.

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