


INNOVATIONS IN SAVINGS LED INPUT FINANCE – THE FUNDO AGRICOLA

The complexity of building a market for certified seeds

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Case Study by

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Introduction to InovAgro and the Fundo Agricola

Innovations for Agribusiness (InovAgro) is the first market systems development project in Mozambique. Funded by the Swiss Agency for Development and Cooperation (SDC), InovAgro is active in 11 districts in three northern provinces, Nampula, Cabo Delgado, and Zambezia. The project is a private sector-led agriculture growth initiative that partners with companies seeking to engage with smallholder farmers—has since evolved to include a successful intervention that assists farmers to save for the purchase of high-quality seeds and other agricultural inputs through community-based savings groups. This paper looks at the factors behind that success and the prognostics for the future.

Since 2011, InovAgro has introduced various initiatives to stimulate private sector engagement with smallholder farmers. The project chose Mozambique’s seed sector as its main point of leverage because poor use of certified seeds was one of the biggest factors suppressing agricultural productivity. InovAgro established strong relationships with leading seed companies to help them demonstrate the value of high-quality seeds and good agricultural practices to smallholders, aiming to build demand in this market.

However, farmers in Mozambique often struggle to afford seeds, other inputs, and labour at planting time. In July 2015, InovAgro launched a new initiative—the Fundo Agricola (FA)—to expand farmers’ capacity to save for seeds and other agricultural inputs by leveraging Mozambique’s existing Village Savings and Loan Associations (VSLAs). The FA provided a system for farmers to save in advance for the inputs they need to purchase at the beginning of each planting season.

Over the first three years of the initiative, more than 4,700 farmers participated in the program and saved increasing amounts each year. However, starting in 2018, the numbers of new savers expanded rapidly. Over the next two years, new savers jumped by 12,700 members to 17,445 active savers, 55.3 percent of whom are women. Savings were also increasing rapidly. In 2018, farmers saved the equivalent of US\$135,000 to help them pay for a range of inputs—from seeds and fertilizers to labour during the 2018-19 planting season; they invested in \$59,650 on certified seeds alone. In 2019, the savings increased to \$257,800¹, while the purchase of certified seeds increased to \$137,500 in 2019.

Fundo Agricola Members, Savings, and Purchases of Seed

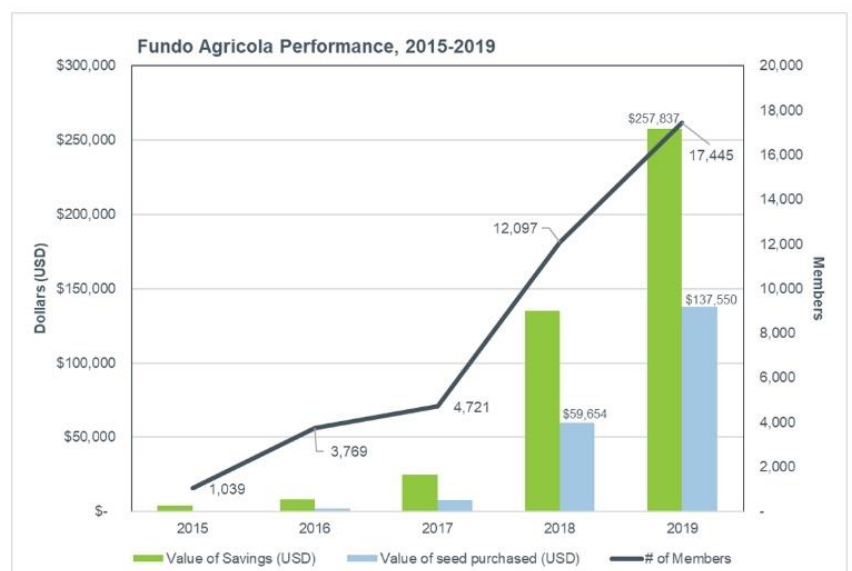


Figure 1 - Fundo Agricola performance 2015 -19

¹ The purchases of seed captured only relate to those facilitated through the Fundo Agricola groups. A number of farmers, especially in Mocuba district, had a lot of individual purchases.

BACKGROUND AND CHALLENGE: FINANCING AGRICULTURAL INPUTS FOR SMALLHOLDER FARMERS

Farmer adoption of certified seeds and good agricultural practices are necessary for improving farmer productivity and increasing their income. Building a market for smallholder farmers to access seeds and other improved technologies requires both effective demand (enough farmers are willing to pay commercial rates for them) and an accessible supply. For many years, issues of seed availability and accessibility prevented this market's development in Mozambique.

Until 2012, the Government of Mozambique and various NGOs ensured the delivery of certified or improved seeds to targeted smallholders, either for free or at subsidized prices. Accordingly, private seed companies saw the government, not farmers, as their direct customer. Farmers were not used to paying for certified seeds and did not understand their full value proposition, keeping the effective demand for seed low.

Mozambique's 2013 budget crisis upended the entire market system for certified seed. Without funds, the government could no longer purchase massive quantities of seed, eliminating the industry's major market. Lacking distribution channels to sell to smallholders directly, companies could not find buyers, stimulating them to action.

In 2014 InovAgro started working with seed companies to help them understand the value proposition, market potential, and process of selling directly to smallholder farmers. As companies recognized this market opportunity, they began building distribution networks and reaching out to farmers. These efforts led to a gradual increase in seed availability. Seed companies also nurtured better relationships with agro-dealers to promote their seeds to farmers.

However, the effective demand for seeds remained weak. Smallholders faced dual constraints: a lack of access to resources to purchase seeds and a poor understanding of the value proposition of certified seeds. Companies organized demonstrations to raise awareness about the value and quality of certified seeds, but farmers' inability to purchase the seeds at planting season remained an obstacle.

Smallholder farmers have money at various times during the year, but rarely at the time when they need to purchase inputs and labour to prepare their fields at the beginning of the rainy season. Farmers needed a means to acquire necessary funding at the right time.

In cases where farmers lack money for inputs, development initiatives tend to respond by working to improve farmers' access to credit. However, this strategy has proved a major challenge in Mozambique. Between 2011 and 2014, InovAgro tried several approaches to get financial institutions to make production loans to smallholder farmers and learned first-hand the difficulties in generating these loans. While there was a limited response from one bank, it only targeted emerging commercial farmers who were registered for taxes, not true smallholder farmers. Banks perceive smallholders, who have a poor history of repayment in rural Mozambique, as risky borrowers.

Some donors have established guarantee schemes to stimulate lending to farmers, but these programs are generally undersubscribed and, when used, rarely encompass production loans. Even when they do employ guarantees, banks do not use them to address market failures by learning more about borrowers and reducing their levels of risk to stimulate further lending. Rather, banks use guarantees only to cover the risk of individual, one off, transactions. Banks also require farmers to present lists of assets to be used as collateral.

In addition to banks' low appetite to lend, the regulations covering commercial financial institutions require farmers to provide identity cards and formal tax registration with a taxpayer number. Few smallholder farmers have this documentation.

The opportunity

Rather than focus on access to external financing, InovAgro experimented with a mechanism to help farmers better manage their own financial resources. The project investigated options to strengthen farmer-based savings groups, exploring Mozambique's existing model as an alternative strategy.

Leveraging the VSLA and Seed Companies

VSLAs started in the late 1990s in Mozambique, but the numbers had remained small. However, following advocacy by the UNDP, the Government of Mozambique, with funding from IFAD, started investing in 2005 to expand the [VSLA](#) model across the country to increase rural household financial security. The government supported local NGOs to promote the methodology in rural areas, and by 2014 more than 600,000 people had adopted the VSLA model.

InovAgro saw an opportunity to leverage these groups, which offer established good group dynamics, a savings culture, and financial literacy to manage the saving and credit process. The project could also leverage the NGOs that had experience facilitating the development of these groups.

At the same time, seed companies were motivated to expand sales and interested in collaborating with InovAgro to promote their products to savings group members to develop a new customer base among buyers with cash. Combining these two opportunities to leverage local organizations, InovAgro decided to test the savings group concept with VSLAs and bring in local NGOs already experienced in the VSLA model as co-facilitators as a cost-effective way of accelerating uptake.

DESIGN AND IMPLEMENTATION

In 2015, after conducting rapid assessments of VSLAs and potential NGO partners, InovAgro launched its "savings for seed" idea in the form of the *Fundo Agricola*. In the initial design, participating VSLAs would offer the FA as an optional addition to their existing two product lines (the savings and lending fund and the social fund). While the new fund would focus strictly on saving for seed and other inputs required at planting, the groups would maintain the autonomy to decide exactly how to use their savings.

The pilot year 1 and 2 (2015 and 2016)

Fundo Agricola implementation

Initial work began in 2015 with a rapid pilot in Mocuba district with a local NGO, Nana, as the co-facilitator. The short time frame between the program's approval in June and the start of the planting season in October proved challenging. While 1,039 VSLA members participated in the program, they saved a total of only 173,000 metical (MZN), about \$5,000, at that time. With an average of 167 MZN (about \$4) per person, members were not able to purchase much seed. Seed companies also found it difficult to interface with VSLA savings groups and expensive to service them. However, farmers' interest in continuing the FA into 2016 remained high.



First Fundo Agricola distribution in November 2015

In early 2016, InovAgro tapped the local NGO Ophavela, a leading VSLA facilitator, to launch FA pilots in Ribaué and Malema districts. Group members in these locations worked with Ophavela to adapt

the FA methodology to fit their needs. Members decided to use the FA for fixed savings, instead of the traditional VSLA approach of lending out the savings for repayment with interest. This version proved so successful with the members in Malema and Ribaué, that FA members in Mocuba also adopted it.

Integrating seed availability and access

In the FA initiative's second year, participants tripled to 3,769 and saved more than 500,000 MZN (about \$8,000). Of the savings, members spent \$2,000 on seeds.

But even as they started saving, seed availability remained a challenge for farmers. Seed companies expressed interest in the FA initiative and InovAgro encouraged them to meet with the VSLAs and organize product demonstrations. However, without further aggregation of the demand, FA groups' initial savings were too small to elicit the interest of the companies.

To better connect farmers with seed companies, in early 2016 InovAgro organized [seed fairs](#) to coincide with the distribution of FA savings to members. Bringing seed closer to farmers, at the time they had resources to buy inputs, stimulated FA members' interest in making purchases. Many members reported that having a small initial sum of money allowed them to shop around the fairs to decide what seed varieties they wanted, and then use money from family members to purchase additional quantities. However, savings remained too small to translate into significant volumes of sales at the fairs, limiting the benefits of participation for seed companies and agro-dealers.



Certified seeds on display at a seed fair.

Lessons from the first two cycles

By testing various methodologies, InovAgro learned many lessons from the first two cycles of the Fundo Agricola:

Physical access to seed was a problem. While farmers wanted to buy them, seeds were not always available in their areas or in the small quantities, they could afford. Seed fairs helped achieve better linkages on a local level.

VSLAs need a critical mass to interest seed companies. In the early years, FA groups were just starting to attract participants, so initial savings totals were too small to incentivize many market development efforts from seed companies. While farmers expressed strong interest in the process, they also did not understand how much they needed to save to meet their seed requirements.

Interest from smallholder farmers continued to increase. Despite small overall savings, the average amount saved per farmer increased from year one to year two, demonstrating increasing interest in the program. Farmers' receptiveness to seed fairs showed they were becoming aware of the value proposition presented by commercial certified seed.

Men became more active in the VSLA. While membership in the VSLA had been primarily women, with the introduction of the Fundo Agricola and gaining greater access to finance for production, more men started joining the groups and other existing groups with male members adopted it quickly. This led to some changes in the dynamics within the VSLAs.

Building a market takes time. After two years, several issues remained. Farmers lacked understanding of the value of quality seeds and how much they needed to save to buy them. Seed companies did not yet recognize the individual purchasing power of smallholder farmers. Evolving supply and demand for certified seed among this population is a gradual, iterative process.

Adaptation and Scale-up

InovAgro continued adapting the FA product in 2017 to leverage the lessons learned from the first two years.

2017: Adaptation

In 2017, new members steadily joined the FA, totalling 4,700 by the end of the year (63% women). Savings per member increased, nearly doubling from 170 MZN per person to 320 MZN per person and reaching \$25,000 in total savings. The growth in average savings was a good sign of increasing demand for the service.

The main challenge left for InovAgro was the disconnect between seed companies and farmers. Information gaps remained on both the supply and demand sides: seed companies did not know how to locate the farmers with money, and farmers were not able to communicate their effective demand to the companies.

To address these gaps, InovAgro worked with the VSLAs and their NGO co-facilitators to introduce District Management Committees (DMCs), made up of animators from the FA. DMCs would aggregate demand from the farmers to present requests to the seed companies, allowing smallholders to offer a sufficient volume of funds to interest companies in seeking them out as clients. The DMCs would manage this process of interaction and coordination with the seed companies.

These aggregated funds would allow the DMCs to negotiate better with seed companies. Later in 2017, the co-facilitators helped the DMCs to run a tender process to allow seed companies to propose prices for bulk orders and to negotiate other non-financial commitments (such as delivery schedules, locations, and extension services). The committees negotiated deals to purchase more than \$7,000 of certified seeds, the first time that savings volumes reached a critical mass. Meanwhile, members used their remaining funds to purchase the additional inputs and labour needed at planting.

2018: Scale-up

Having tested the FA model and seeing strong results and interest from smallholder farmers, InovAgro decided to speed up the process of replication to stimulate the enrolment more participants and rapidly expand the program's benefits. Additional members would also increase the volume of savings and expand the market, generating still more interest from seed companies.

To achieve scale cost effectively and to deepen local capacity to initiate and manage FA opportunities, InovAgro needed co-facilitation partners in more locations. In early 2018, InovAgro contracted Ophavela to train five new co-facilitators² on the FA model and to develop an FA operations' manual to share with other organizations, even beyond InovAgro.

Adding new local co-facilitators significantly increased mobilization of FA membership, while bringing down costs of mobilization per person. With better functioning DMCs, engagement with seed companies also improved. Participant numbers surpassed 12,000 (51 percent women). While the absolute number of women increased, the percentage of female membership decreased during the big expansion as many more men joined. Total savings quintupled to \$135,000 as farmers gained better understanding of the model. Average FA savings per member more than doubled from the previous year to 670 MZN (\$11.17). In 2019, the total FA savings reached \$257,837.

² UDACC, a farmer's umbrella association in Chiure; UATAF, a local NGO implementing VSLA activities as well as health and education activities; the Associations of Animators in Ribaué and in Malema; and Terra Amiga the NGO that had facilitated the Land Tenure initiatives in Namarroi)

Seed purchases by FA groups increased eight-fold from \$7,600 in 2017 to \$59,600 in 2018, which is just the trajectory you would want to see from a market systems perspective as the demand for the seed increases and connections with suppliers improve. This upward trajectory continued in 2019 as seed purchases more than doubled to \$137,550 (see figure 1, above).

Fundo Agrícola Results to 2019

The FA has seen increases in service uptake since its inception. Membership, savings, and total seed purchases have grown each year, including as a percentage of the savings. This trend suggests that the program is picking up speed and is responsive to smallholder farmers’ needs.

Another important indicator of farmer enthusiasm for the program has been the steadily growing rate of individual savings per year, as shown in Table 1. Savings in metical have increased every year, although the dollar equivalent dropped in 2016 following a 50 percent devaluation of the new metical. The dollar equivalent has still increased overall, demonstrating that farmers see value in participating, and they are increasing their average purchase of seed each year.

“In 2018, I saved 1,500 meticais in Fundo Agrícola. I purchased 5 kg of certified sesame seed worth MZN 1,000 from Oruvera and planted 1.5 hectares. The remaining 500 meticais I paid for farm labour. I harvested 1,030 kg of sesame sold it to an InovAgro supported Trader for MZN 77,250. In 2020, I plan to double my savings to plant more”- Eurico Monteiro (53), Erati district, Nampula

Table 1: trends in per person savings per year

	2015	2016	2017	2018	2019
per person dollar savings	\$ 3.98	\$ 2.24	\$ 5.31	\$ 11.17	\$ 14.78
per person metical savings	167.16	170.24	320.72	672.99	901.58
per person purchase of seed	\$ 0.77	\$ 0.60	\$ 1.62	\$ 4.93	\$ 7.88

The success of the FA is not just tied to the farmers. Many of the DMCs are engaging more closely the seed companies, creating stronger relationships between farmers and seed companies. Seed

“In November 2019, the Chiure Fundo Agrícola District Management Committee (DMC) and SeedCo signed a part cash/part credit purchase agreement for eight tons of hybrid maize seed meant to be sold to Chiure Fundo Agrícola groups. SeedCo is very happy with the DMC’s progress in repaying the credit. This is a foundation for establishing a long lasting relationship. SeedCo and the DMC jointly sited and established demonstration plots and together are planning to host field days in March/April 2020” - Mr Esmeraldo Chale, Seed Co Representative, Cabo Delgado Province

companies are creating a virtuous cycle by investing in demonstrations and knowledge transfer, improving the terms and conditions of sales to farmers, including sales on credit, further driving the development of the market and increasing productivity of farmers.

Challenges from 2018 and 2019

As uptake and interest in the FA have grown, InovAgro has learned a number of lessons about the challenges that remain, including:

Seed company limitations—planning, management, and distribution. As the demand from farmers increases, seed companies are more interested in dealing with them. But companies are still constrained in their managerial and distribution channels. Sales in 2019 may have surpassed the \$137,500 level, if the seed companies had more ability to respond to the demand. This ability is inhibited by:

- **Seed availability and planning.** Seed companies in Mozambique are still relatively small and limited in how much seed they have for sale each year. As demand increases, companies must plan more effectively and prepare their geographic priorities to get seeds to the necessary areas on time.
- **Seed marketing and demonstration.** Seed companies do not always hold their demonstrations in the locations with highest liquid demand. Many farmers seek products that they know and have been exposed to through demonstrations, so if seed companies want to compete in a region, they must market there.
- **Seed delivery.** While order volumes have increased, it remains expensive for seed companies to make the last-mile deliveries to the groups. One company did not complete a seed order because it could not organize the delivery. Companies need to better coordinate with agro-dealers who have established networks of village-based agents and can deliver seed directly to FA members. At the same time, FA members may need to travel to a central point to pick up their deliveries.

Farmer limitations—planning and communication. Farmers are still learning how to plan for how much seed to purchase, to save appropriate amounts of money, and to communicate their needs to seed companies with sufficient notice. FA members must prioritize early communication—ideally in June—with companies about their anticipated seed demands in October. This communication cannot wait until the planting season nears in October, when it is too late for companies to plan.

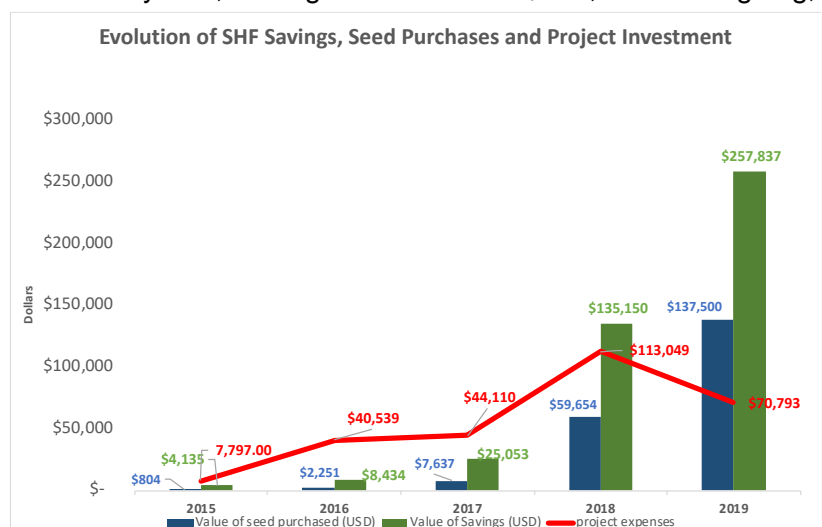
Capacity and sustainability. The FA, created as a part of the VSLAs, will be a sustainable tool for farmers to save for seed in the future. More challenging, however, will be ensuring the sustainability of DMCs to self-organize and pay the costs associated with aggregating orders and communicating with seed companies.

Ongoing monitoring of the Fundo Agricola. Phasing out of the co-facilitators is already happening, as they play little role in the actual savings process now that the groups are active and solid. However, with their departure, given the highly decentralized nature of the FA groups, the major impact will be that no one will be collecting data on the numbers of FA members and their total savings and purchases.

Managing replication and adaptation. InovAgro’s goal is to expand uptake and replication of its model to meet smallholder needs. To address information asymmetries, InovAgro organized a learning session in January 2019 with members of the various DMCs, their co-facilitators, and the seed companies. Participants reviewed the FA’s operations and training manual and made it available to co-facilitators and other donors.

Cost Benefit Analysis

Signs that a market systems program is working include steadily increasing outreach, reduced costs of outreach, and reduced costs per unit of sales. The FA has been an innovation requiring time and investment to bring it to fruition. Through its first five years, InovAgro has invested \$276,000 in designing, testing, piloting and expanding the initiative in deep rural areas of northern Mozambique. Starting slowly while proving the concept, the investments peaked in 4th year, and are now decreasing as the service takes off. This investment has resulted in cumulative farmer savings of more than 430,000, leading to purchases of seeds worth more than \$207,000. As with any new investment costs are greatest in the early years, but they are coming down steadily (see figure 2). In 2020, InovAgro expects to invest a final tranche of \$40,000, mostly for monitoring and tracking purposes.



Active membership should increase to about 20,000, while the annual savings are expected to exceed \$400,000 and annual purchases of seed by FA members will be greater than \$220,000 per year. These benefits are expected to continue each year into the future without any further project investment, reflecting the market systems approach, and will represent a significant return on investment. As the system continues to adapt on its own and the members begin to integrate with other financial services, as per the following section.

LOOKING AHEAD

InovAgro has introduced a cost-effective, unique response to the perennial challenge of helping smallholder farmers access funding to purchase inputs at planting season. The project's approach is one that can respond to the needs of farmers while continuing to innovate and improve. The FA is not the final solution, but the foundation for leveraging new business models.

For example, while the FA and DMCs were instrumental in developing demand for seed and connecting farmers with seed companies, they are only a first step in developing the market for high-quality seed in northern Mozambique. These innovations represent a jumping off point for other businesses to engage and leverage the work the FA has done. InovAgro will start to promote and test new adaptations to its model in the coming years, and other donor programs can facilitate similar experimentation with additional approaches.

In 2020, InovAgro plans to be active in several areas:

- *Leveraging village-based agents as demand aggregators and seed promoters.* InovAgro is working with seed companies and agro-dealers to improve direct linkages to FA groups and farmers through village-based agents who aggregate demand for the companies and ensure the coordination.
- *Having agro-dealers serve as agent bankers to manage savings plans and educate farmers.* Agent banking is starting to take off in Mozambique. The country's central bank has created a conducive environment with adapted Know Your Client (KYC) definitions for lower-end clients (less than 5000 MZN) and the financial institutions who have developed Agent Banking models are interested in penetrating rural areas and bringing appropriate products closer to farmers. BancABC is the first mover in this field and is already partnering with InovAgro to engage directly with the FA through their agents. Agro-dealers who can qualify as agent bankers could help clients more carefully plan their savings to reflect their needs at planting time.
- *Increasing linkages to the formal financial sector.* The financial institutions that promote agent banking are increasingly interested in reaching rural areas and serving as holders of FA savings. Because FA savings do not come and go through loans, funds can accrue large amounts of money, and that presents a safety risk. Groups could deposit their funds with banks for greater security. Financial institutions can also serve as intermediaries with seed companies and agro-dealers, helping to facilitate communication about FA group needs.

The Fundo Agricola is still in its infancy, but is growing, adapting, and maturing rapidly. Strong interest from participating communities demonstrates the fund's value to smallholders. Without changing the character of the original VSLA groups, the FA presents new opportunities to collaborate with formal financial institutions to improve the savings management and seed purchase process. InovAgro will continue to test various models for long-term sustainability that will evolve with the country's financial industry and the seed sector in rural northern Mozambique.