


Case Study

Building the Market for Certified Seeds for Smallholder Farmers in Northern Mozambique

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List of Acronyms

ACAM	African Century Agriculture Matama
AGRA	Alliance for a Green Revolution in Africa
AMB	Associação Moçambicana de Bancos (Mozambique Banks Association)
APROSE	Association for the Promotion of the Seed Sector
DMC	District Management Committee for the VSLAs doing the Fundo Agrícola
ETG	Export Trading Group
FAO	Food and Agriculture Organization
GAP	Good Agricultural Practices
GoM	Government of Mozambique
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IIAM	Agrarian Research Institute of Mozambique
IMAPEG	Agriculture and Livestock College of Gurué
K2	Klein Karoo
MSD	Market Systems Development
MT	metric tonnes
NGO	Non-Governmental Organization
NSA	National Seed Authority
PSSI	Private Sector Seed Inspectors
RCRN	Rede de Caixas Rurais de Nampula
SDC	Swiss Agency for Development and Cooperation
SEAG	Gurué Extension and Advisory Service
SEMOC	Sementes de Mocambique
SHF	Smallholder Farmers (male and female)
SNY	Sementes Nzara Yapera
SS	Seed Subsector
USAID	United States Agency for International Development
USEBA	Basic Seed Unit at IIAM (Mozambique Institute of Agricultural Research)
VBA	Village based agents
VC	Value Chain
VSLA	Village Savings and Loan Associations

FOREWORD AND ACKNOWLEDGEMENTS

[Innovations for Agribusiness \(InovAgro\)](#) is a Swiss Agency for Development and Cooperation (SDC) funded project which uses a market systems development (MSD) approach to improve the incomes for poor women and men small scale farmers in three provinces in Northern Mozambique (Nampula, Zambezia, and Cabo Delgado). The project is implemented by a consortium of DAI Europe and COWI. InovAgro leads initiatives to develop stronger, more inclusive, commercially driven and competitive market systems for agricultural input supply (especially seed sales and crop protection products) to smallholder farmers (SHF); output marketing (the efficient sale by SHF of their production); and access to finance for SHF to purchase inputs and for traders to purchase outputs. InovAgro engages with key market actors to strengthen the supporting institutional and policy/enabling environment to address systemic constraints of smallholder agricultural development.

The project started with a six-month design phase in 2010 and has had three implementation phases between 2011-2020. As the MSD approach was new to Mozambique in 2010, the first phase was to test the assumptions from the design phase and get a proof of concept. The second phase was designed based on the results and learnings from the first phase, to expand the impact. The third phase has been a consolidation phase to continue the growth while testing exit strategies and capturing the lessons learned for sharing more broadly in the development community in Mozambique and internationally.

The Case Study Series.

InovAgro launched its case study series to capture the knowledge it has gained on market systems development in Mozambique since 2011 and to share it widely among the agricultural development stakeholders including the government, market actors, and donor agencies. This case study, prepared by William Grant, is the fifth in the series which includes case studies on the [Fundo Agricola Savings for Seed](#), [Market Systems Approaches to Land Titling](#) in Mozambique, [Market Systems Resilience to Mitigate the Impact of COVID 19](#), and [Strengthening the enabling environment of the seed subsector in Mozambique](#). Additional case studies (coming soon) will include ones on InovAgro's output marketing initiatives and gender engagement.

About the author

William Grant is the technical director to InovAgro and has been engaged in supporting InovAgro's design and implementation of interventions since its inception in 2010. Over the past 18 years, Mr. Grant has worked on more than 20 MSD projects in 19 countries and is one of the leading MSD practitioners in Africa.



Morgen Gomo
Team Leader, InovAgro

INTRODUCTORY SUMMARY

Innovation for Agribusiness (InovAgro) is in the final year of implementation. Along three phases, spanning 10 years, InovAgro has used a Market Systems Development (MSD) approach to address the development challenges facing SHF and ensuring that the markets work for the poor. The project has used the MSD approach to facilitate the development of the agriculture markets by innovating, testing, and adapting market systems business models which increase the inclusion of, and benefit, to female and male smallholder farmers (SHF)¹. The successful models are then scaled-up. The project has focused its activities in 11 districts in the three provinces of Cabo Delgado, Nampula and Zambezia. These facilitation activities have worked with both private sector market actors as well as with the government and associations to improve the enabling environment of the inputs, outputs and agriculture services markets.

This final year of implementation is facilitating the adoption, replication and scale-up of the successful models to all project districts in the three provinces and to other regions of Mozambique. With this aim, the project is documenting and sharing the experience and knowledge gained along the three phases of the project. Case studies and fact sheets are being produced to support this process.

This case study captures InovAgro's experience on facilitating the development of the market for the sales of certified seeds by private sector seed companies and agro-dealers to SHF between 2014 and 2020.

The problem. In 2014, SHF in Northern Mozambique had virtually no commercial access to certified seed or knowledge about good agricultural practices (GAP) which were needed to increase their productivity and income earning opportunities.

The solution. InovAgro engaged with the private seed companies to enter into the north and to pilot new approaches to build awareness of the value of certified seeds and GAP to expand their sales to SHF in its target districts. Nine partner seed companies adopted InovAgro introduced approaches in target districts and replicated them to their operations throughout the country.

The results. From no seed companies actively selling directly to SHF in the 11 InovAgro districts in 2012, by 2020 there were 24 seed companies and leading agro-dealers organizing demonstrations and field days to promote farmer awareness. The sales of certified seeds by seed companies had increased from almost zero to 759 metric tons in InovAgro's 11 districts alone, demonstrating the development of this commercial seed market. Numbers of farmers participating in field days had been increasing in an accelerating manner but slowed drastically in 2020 due to the COVID-19 restrictions on the size of gatherings, restricting outreach during field days.

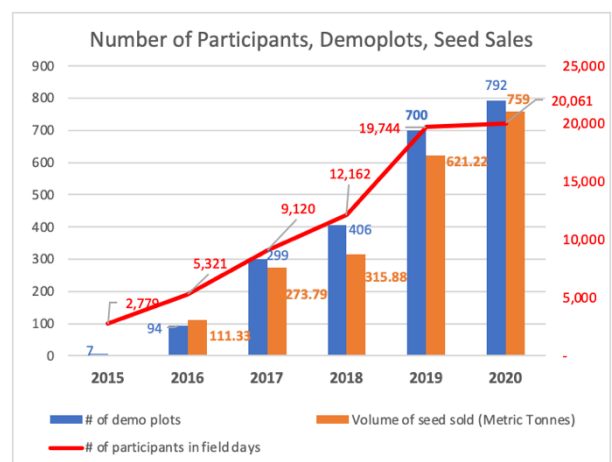


Figure 1: Evolution of participants, Demo plots and Seed Sales to SHF

The case study is based on a comprehensive review of project documentation, interviews with key stakeholders, and the author's first-hand experience. This case study complements InovAgro's case study on [strengthening the enabling environment for the seed sector in Mozambique](#), as getting the enabling environment right is important for developing any market system.

¹ Whenever the term SHF is used, it includes both female and male farmers.

The study highlights the process of a market systems development programme to achieve such results, including how:

- InovAgro decided to focus on building the market for certified seeds and developed a foundational relationship with seed companies and key policy intermediaries;
- InovAgro had to focus on many different aspects of the seed market system at the same time, from building the capacity on the supply side to understand the market they were serving, while at the same time addressing the constraints to building the demand for certified seeds by SHF, especially knowledge of the value proposition and having the funds on hand to purchase seeds at planting; and
- InovAgro's interventions in support of developing the seed market system evolved over time, how the project team learned from initiatives that did not get traction and adapted the approaches and relationships to maximize their effectiveness and the results.

The lessons

1. Building a better functioning market system is not linear but builds on lessons and adaptation coming from unsuccessful initiatives. This case study will recount the winding path that is typical of MSD projects, trying many different approaches with private and public actors until traction is gained. In this case InovAgro went down several paths, learning from each until it was able to leverage that learning and the relationships it had built to focus on supporting to seed companies as the point of entry to bring broad based inclusive growth to smallholder farmers.
2. A strong value proposition helps to drive behaviour change by both SHF and the private sector. InovAgro was able to make a convincing case to private firms that if they could increase farmer awareness of the value of using certified seeds and teaching SHF to use them properly, they would expand sales. The agricultural input providers have since been able to make this value proposition to the SHF, leading to increasing sales of seeds and inputs.
3. As a market system matures, linkages between firms are strengthened and firms begin to specialize in their areas of relative strength. The depth and complexity of the commercial seed system in the north has increased greatly with more seed companies active, new distributors and agro-dealers entering the system. Seed companies are now focusing more on seed production, while the distributors and agro-dealers are increasingly taking on the roles of driving farmer outreach and awareness. As the market system deepens, the size of the market grows at an ever-accelerating pace.
4. It takes interventions in many aspects of the market system to create a stronger and more dynamic system. The case study ties back to InovAgro's broader work in the overall seed sector which had built relationships with government and the private sector and enhanced InovAgro's credibility early on in the process. InovAgro had to address supply side issues, demand side issues, and access to finance issues. It addressed policy issues, including changing the regulatory framework for enhancing seed company capacity to meet standards and certification.

Future perspectives. While there has been steady progress over the past five years as more and more firms are entering the market and the volume of sales of certified seed are increasing rapidly, the seed market system is still fragile and there is still a lot of room for growth. If left alone, it will continue to grow and deepen steadily, especially if supporting market systems such as access to finance can be strengthened. But government policies around delivery of agricultural inputs directly to farmers risks disrupting this progress and crowding out private investment needed to grow the system.

BACKGROUND

When InovAgro began its research for the initial three-year pilot phase 2010, its mission was to develop inclusive market led approaches to increase the incomes of smallholder farmers in Northern Mozambique by integrating them into more effective market systems. However, there were virtually no market systems in Northern Mozambique supporting SHF to increase their productivity, develop strong relations with end markets, and increase their sales. While there had been dozens of donor projects providing direct support to SHF, delivering free training and free or subsidized inputs, little emphasis had been placed on building up sustainable private service providers with an incentive to deliver inputs and training on a regular basis in an effective market system. Creating a functioning market system would require a concerted and steady initiative to gradually build up the markets system that would be working for the poor.

To put this into a visual framework, the non-functioning market systems were characterized by low volumes or values of transactions, very few active firms in the value chain, weak support functions, weak relationships between the firms in the market system and a distortionary policy environment. InovAgro’s objective was to gradually develop a private sector led market system characterized by large numbers of firms participating, with much higher volumes and values of transactions. These market systems would have more specialized and stronger supporting systems and stronger coordination and relationships. These deeper and better functioning market systems for the SHF would also be more resilient, able to withstand external shocks, in order to continue delivering services needed by the SHF.

The Market Systems Continuum

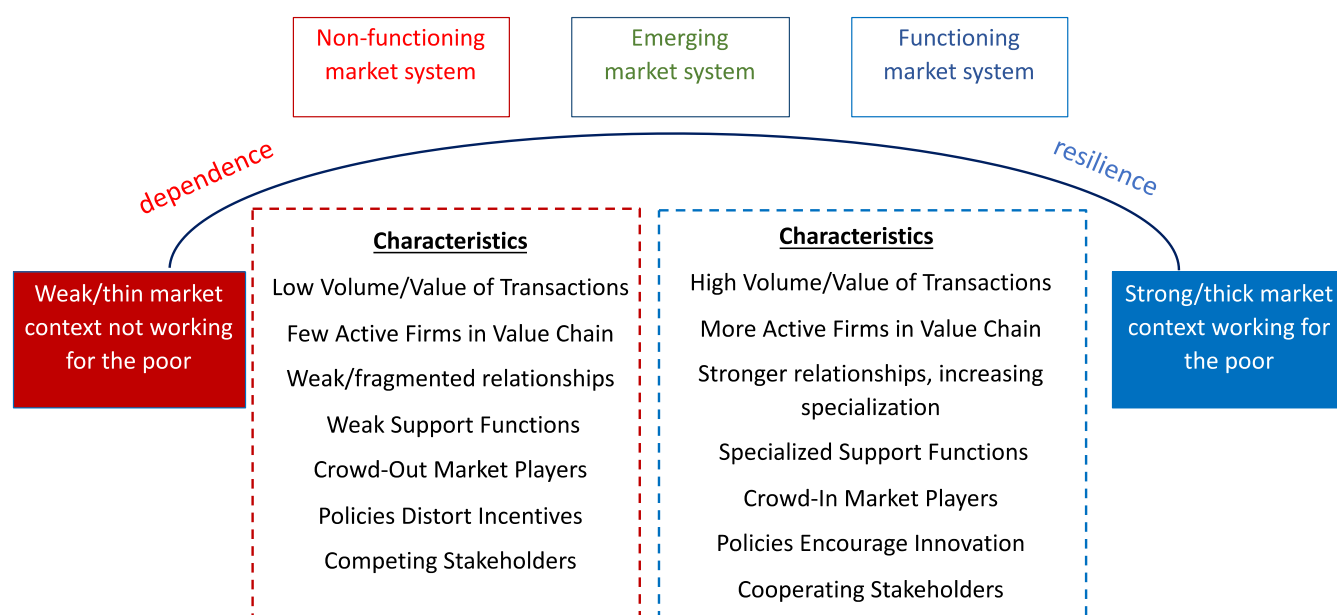


Figure 2: market systems continuum

InovAgro needed to determine how to get traction in a weak market context, and to gradually introduce new services and improve relationships. The initial InovAgro strategy focused on identifying large lead firms that needed a regular supply of agricultural products to invest in building relationships with SHF and provide embedded services to enhance SHF productivity and sales. InovAgro would then leverage these lead firm investments to introduce business and input services to SHF in a more sustainable manner and gradually move the sector along the market systems continuum.

How InovAgro decided to target the seed market

The first company to express interest in collaborating with InovAgro in 2011 was a poultry company, GETT Lda (AKA King Frango), which wanted to establish a steady supply of soybeans to mix with maize for feed for their chicken operations. GETT’s poultry sales were increasing rapidly and they needed much more soybean cake. They were importing soybean cake but realized that there was a growing supply of soybean in nearby Gurué district and felt that it would be better to buy soybean locally than to import.

They had weighed the options of establishing better supply chains with SHF or starting a large farm themselves. With InovAgro's engagement, GETT decided to invest in increasing local production of soybean in Gurué through a contract out-grower scheme where they would provide the inputs to the farmers in return for purchasing all their production.

InovAgro agreed to co-invest with GETT to establish the out-grower scheme. While GETT was recruiting an out-grower manager to lead their extension team, InovAgro carried out more detailed analysis of specific farmer constraints to increasing production of soybean and the structure of the producers. The information on the mix of small farmers and emerging farmers, along with the gender composition of the farmers, provided insights into the factors influencing their current and potential future use of different production technologies. Major constraints included low quality soybean seeds for planting, low farmer awareness of good agricultural and soybean specific production practices, and access to farm mechanization services to prepare the land during the short planting season (timing for planting of soybean is very time sensitive to maximize yields).

The analysis highlighted that the most critical constraint to increasing productivity was the lack of highly productive certified soybean seed in Mozambique. Several NGO initiatives had been producing and giving away soybean seed to grow, which had helped to launch soybean production in Mozambique, but they were 3rd or 4th generation seed that had lost much of its vigor. There was no supply of certified seed in country, so InovAgro assisted GETT to import 80 MT (metric tonnes) of first generation (C1) certified soybean seed to sell on credit to SHF out-growers to increase their productivity. The Rede de Caixas Rurais de Nampula –RCRN - MFI provided credit to the smallholders to purchase the seed, backed by the guarantee that GETT would ensure payback at harvest by deducting the value of the seed from their purchases and transferring that to RCRN. Given that this was the first certified soybean seed available for SHF, it faced strong competition from locally available, lower quality/less productive, but much cheaper, seeds. Therefore, the underlying shortage of high quality, certified seed for sale to farmers would be a recurrent problem every year. This became the first step in InovAgro's decision to stimulate the production of certified soybean seed in Mozambique. While this would be important for the project's partnership with GETT, it would also help to resolve the broader system wide constraint of access to certified seeds in the Nacala Corridor.

As InovAgro brought on more partners and looked at additional crops like pigeon pea, sesame, and groundnuts that were in high demand by partners serving the end markets, the lack of certified seed was a constant problem. InovAgro's second main partner, Export Trading Group (ETG), wanted to develop an outgrower scheme for pigeon peas. Poor seed quality was again a major constraint, but the constraint was even larger. There was no certified pigeon pea seed available in Mozambique or in any of the surrounding countries in the region to purchase and import. There was not even any basic seed from which to produce certified seed in Mozambique. To resolve this, InovAgro purchased basic seed from the International Crops Research Institute for Semi-Arid Tropics (ICRISAT) in Malawi, in order to share it with seed multipliers in Mozambique. The Agrarian Research Institute of Mozambique (IIAM) has a continuing challenge of getting foundation seed to produce basic seed to share with the seed companies.

In parallel to the InovAgro investment with GETT, the SDC contracted a study by COWI, MZ in 2011 to analyze the policy and business aspects of the seed sector in Mozambique to help design a broader strategy. This study highlighted the fact that 80% of all seed being used by smallholders was from retained seed or purchased from traders in local markets, and that the majority of other improved seed was given to SHF by NGOs or government². Very little high-quality seed was sold in the formal market channels (seed companies to agro-dealers to farmers); the market system did not exist. Therefore, the SDC charged InovAgro with developing and implementing an overall seed sector strategy that would lead to greater supply of certified seeds to SHF.

How InovAgro developed the strategy - analysis and participatory engagement

In 2012, InovAgro invested in understanding the seed market system in Mozambique. InovAgro carried out a seed sector value chain (VC) assessment which analysed the market segments for seeds (certified

² "Analysis of seed production, commercialization and use in Mozambique" Austral COWI for SDC, April 2011

and uncertified), the structure of the private sector seed industry, the relationships between the different types of firms in the sectors, the role of government and NGOs as a supplier of seed to the SHF and the regulatory environment governing the sector, especially around seed certification³. In order to ensure maximum impact, the study was carried out in conjunction with the National Department of Agriculture and the National Seed Authority. The study reviewed all of the donor projects and NGO programmes working on seeds in Mozambique, as well as other seed projects working in the SADC region to provide a comprehensive overview.

The study highlighted a number of critical considerations for the seed sector, of which the most important were:

- The dominance of the government of Mozambique as the leading supplier of seeds to SHF and the role of NGOs in multiplying and then distributing (not selling) seeds to SHF;
- None of the leading seed companies were targeting SHF as their direct clients (they sold mostly to government or NGOs);
- The weak understanding by SHF of the value proposition to purchase more vigorous certified seeds
- The dominance of retained seed or purchases from the local markets which essentially meant that farmers were just using crop from the previous year, which had lost most of its vitality;
- The small numbers and very weak networks of agro-dealers for selling seed to and other inputs directly to SHF;
- The lack of dialogue between the private seed companies and the government to address policy issues affecting the sector; and
- The capacity limitations of the National Seed Authority (NSA) to inspect and certify seed being produced by the seed companies.

These findings highlighted the weak nature of the overall seed market system and the important role for government and the private sector to make it work better.

To drive a participatory seed strategy development for the SDC, InovAgro organized the first seed sector workshop in late 2012 including seed companies, donors and government. The workshop presented these findings, the proposals and ideas of support and possible interventions. The workshop helped to identify areas of collaboration with existing and planned programs by other stakeholders to support the seed industry. Participants included all of the leading seed companies, ministry agencies, donors and NGOs active in the sector. A key result of the workshop and InovAgro's underlying work was the creation of a National Seed Task Force and establishing a coordination office at the NSA. This Task Force played an important role organizing the first National Seed Workshop in April 2014, which ultimately led to the creation of the national seed sector dialogue platform, which became institutionalized as the Association for the Promotion of the Seed Sector -APROSE.

³ "A Value Chain Analysis of the Seed Sector", ECI Africa Consulting and Austral COWI, InovAgro, October 2012

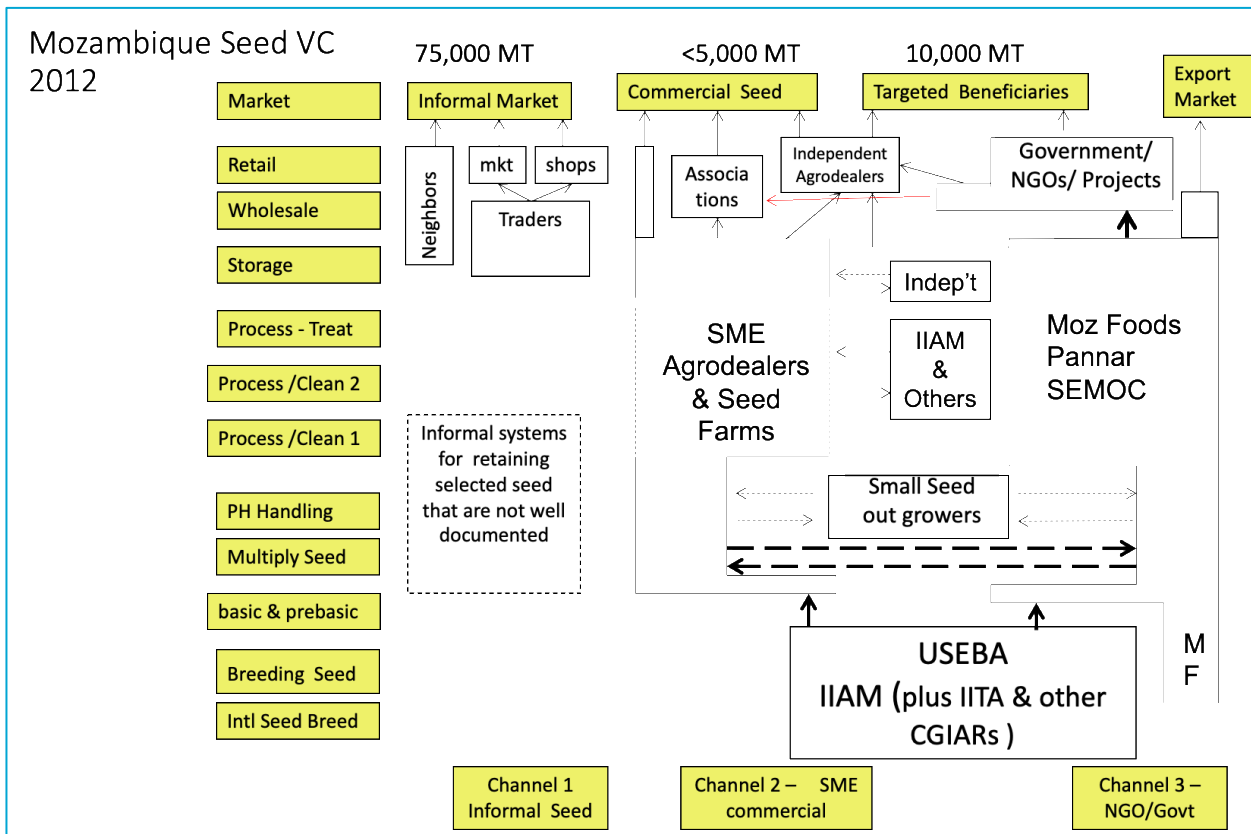


Figure 3: the structure of the seed value chain in Mozambique in 2012

As InovAgro completed its pilot phase in 2013, it laid out the strategy for the next phase (2014-2017) which would emphasize:

- Stimulating demand for certified seeds by SHF, mostly through developing extension services that could manage demonstration plots and field days;
- Improving access to finance to be able to purchase improved inputs. This could either be through embedded finance through contract growing relationships or through commercial finance to SHF by leveraging commercial bank interest (especially Banco Oportunidade) in building a client base of small farmers;
- Developing a commercial and sustainable supply response from the seed companies; and
- Strengthening public private dialogue.

The rest of this case study focuses on the creation of a sustainable market for certified seeds, developing a viable commercial supply while also building the demand for certified seeds, leading to deeper and broader market systems. The process was not linear. It had some false starts as some market system assumptions did not prove true. It had a range of partners, some stronger than others, some more committed than others. But the strategy evolved over time, adapting year on year and as it matured, increased the outreach and engagement with increasing numbers of types of market actors.

IMPLEMENTING THE STRATEGY

Stimulating demand for certified seeds

As Phase II of InovAgro started in 2014, the Facilitation Unit focused on two main approaches to drive demand creation by improving farmer understanding using extension services: i) having lead firms drive the knowledge transfer and extension to SHF through contract growing schemes and provision of embedded services (extension, inputs, and farm mechanization) to stimulate demand; and ii) at the same time dis-embedding the services from lead firms to increase farmer choice and voice by establishing a private extension service that could sell its services to agribusinesses seeking improved supply or to farmers seeking the services and build a broader capacity for extension in the region.

InovAgro continued its work with GETT and ETG to contract with SHF to provide them with advisory services through extension agents employed by the lead firms, provide embedded inputs, and guarantee the offtake of their products in the 2013-14 agricultural season. InovAgro enlisted support from two seed companies, Phoenix and Ikuru, to assist with the commercial supply of seed directly to the SHF, with InovAgro serving as the guarantor for payment of the seed.

In late 2013, InovAgro had negotiated with the Agriculture and Livestock College of Gurué (IMAPEG), which trained agricultural technicians, to create the Gurué Extension and Advisory Service (SEAG). This would be a new private agricultural extension service provider. SEAG would sell services to farmers (small and large), private sector input suppliers, financiers of agriculture, private sector buyers and NGOs⁴. While InovAgro supported SEAG with both operational funding and with technical training and mentorship for its eight extension agents and two extension supervisors in the first year, it was expected that SEAG would cover 50% of its costs in the second year and gradually become sustainable.

But this strategy encountered problems in 2014. A combination of strategic and human factors led the two main lead firms to withdraw from actively supporting the contract growing schemes which were critical for supplying the embedded inputs:

- ETG's extension services manager passed away unexpectedly, leaving the relationship with no sponsor. The ETG management responsible for activities in the North were focused on other key business targets, and had no incentives to continue the outgrower scheme, so let this initiative slip away;
- GETT had sold out their business to African Century Agriculture Matama (ACAM) in 2012 and in 2014 ACAM announced a new strategy where they would focus on direct production themselves and cease working with SHF. ACAM started a large farm in Niassa province, which would focus on maize and soybean production on their 1,000 ha farm.

InovAgro relied on SEAG to deliver most of the farmer extension services, organizing more than 20 demonstration sites reaching 3,384 farmers through field days. With very positive impact on yields, this began to clearly demonstrate the value proposition of using certified seeds. However, with the departure of the leading commercial partners, the prospects for the viability of SEAG as a private commercial extension service also diminished. IMAPEG was unwilling to continue driving SEAG without a continued significant investment from InovAgro, which InovAgro could not provide.

Therefore, as 2014 came to a close, InovAgro was faced with a serious challenge to address this critical loss of partners. It had learned hard lessons about partner selection; how large companies could change their strategies rapidly and there needed to be a strong corporate imperative and value proposition to engage in the initiatives. There had to be both the **will** as well as the technical and management capacity (the **skills**) to drive inclusive business interventions. InovAgro would need a radical strategic realignment to achieve its objectives.

⁴ Gurué Extension and Advisory Services, Sustainability Concept Note, 2013

2014/15 Strategic realignment

As it set about realigning its strategy, InovAgro's experience in the seed sector had been growing and it had a number of assets to build upon. At the same time, there was a major change in the government's role as a provider of seed which both destroyed the markets for the existing large seed companies, but also created new opportunities for private seed companies.

Strong experience understanding farmer challenges. By working closely with SEAG and the two lead firms, InovAgro had a much deeper understanding of the direct challenges to building demand amongst the farmers. Its experience organizing demonstrations with lead farmers, working with local extension agents and engaging with agro-dealers had connected with key local associations and market actors.

Strong reputation within the seed sector. At the same time, InovAgro was becoming nationally recognized as a leading thinker on seed sector issues. In April 2014, InovAgro had organized the first National Seed Workshop in Maputo. This two-day event regrouped more than 80 key stakeholders from the private seed companies, the relevant government agencies, the international agricultural research institutions, the farmers and the donors⁵, and laid the foundation for the national seed platform for dialogue. We had developed good relations with most of the seed companies through our initiatives to promote certified soya and pigeon pea seed, and the engagement of the seed companies during the VC study. And InovAgro had strong relations and credibility with the Ministry of Agriculture.

Change in the policy environment. In 2013, the government, due to budgetary constraints, stopped purchasing and distributing seeds to SHF. This created a major disruption in the industry. All three of the major seed companies (Pannar, SEMOC, and MozSeeds) lost their markets and closed their doors in Mozambique. As they had also been the major buyers of seeds from the local seed companies, this also meant that those companies had lost their markets. The government's stepping out of the market and the departure of the major seed companies caused major disruptions, but also opened the space for private firms to compete, as the government was no longer crowding out private seed companies from serving SHF.

Strong emerging demand from seed companies. All of the smaller seed companies, who had been selling to the large seed companies which had supplied government now needed to find new markets for their seed. But they had no experience selling directly to SHF and had weak relationships with agro-dealers. InovAgro stimulated the interest of the private seed sector to target direct sales to SHF.

InovAgro used these four elements as the core of its new strategy, while also integrating experiences and lessons from other DAI MSD projects in Nigeria. It changed the focus from using the lead buyers as the drivers of farmer outreach and knowledge transfer to using larger input suppliers, especially the seed companies, to drive the demand creation by SHF. The commercially driven seed sector initiative was launched at the end of 2014. The objective was to leverage interest from the private sector to build marketing channels to sell more seed through a more formal and structured demand creation and seed availability process.

Importantly, because their previous markets had dried up, there was strong interest (will) on the part of the seed companies to identify new markets to increase their sales. InovAgro showed them a strong value proposition for them to build the demand amongst the SHF through demonstrations and field days to begin supplying SHF with certified seed. InovAgro's new strategy placed the seed companies at the core of outreach through demonstrations with lead farmers to build relationships with the SHF and direct their sales. The big challenge was the capacity of the seed companies to invest in and expand these models.

The strategy needed to address a number of critical challenges:

- **Low number and capacity of seed companies to distribute seed to farmers.** In 2014, there were very few active seed companies in Northern Mozambique. They had limited supply of seed to sell and nascent marketing arms. So, the firms needed to target their sales locations very carefully to make economic sense. This was compounded by information asymmetries about where the best market opportunities were to sell to for efficient outreach.
- **Weak management and financial capacity of seed companies.** The seed companies in Northern Mozambique were generally small, with very limited sales and low management capacity. In a

⁵ See InovAgro Case Study on Seed Sector Enabling Environment, September 2020.

small/nascent market, the seed companies could barely afford sales reps, let alone afford extension agents to build demand for their products. It would take them many years to gradually build the skills and infrastructure to expand seed sales rapidly.

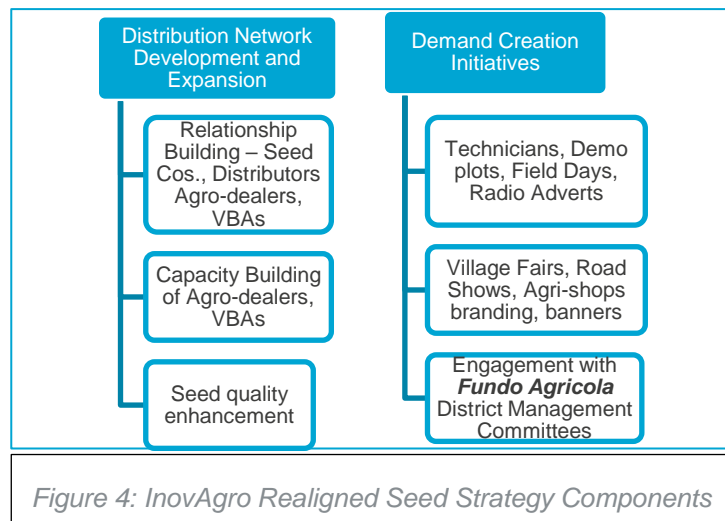
- **Missing functions – distributors.** Seed companies typically do not engage extensively in retail sales down to the SHF level. They specialize in seed production and then prefer to work with/through distributors to reach the agro-dealers who would then sell directly to farmers. There were few reliable and qualified distributors in Northern Mozambique, and none of them included demand creation so the seed companies were forced to reach out directly to the community level and the agro-dealers to change the attitudes of the farmers.
- **Weak networks of agro-dealers.** InovAgro had tried to identify agro-dealers to work through but had found very few, between 2011 and 2014. Larger agro-dealers and seed companies had many problems working with smaller agro-dealers. Smaller agro-dealers had limited technical knowledge and poor business practices. There had been many instances of bad experiences between distributors and those few agro-dealers, so few relationships existed.
- **SHF had a weak understanding of the value proposition for certified seed.** There was still a fundamentally weak demand for certified seed by SHF. It was more expensive than retained seed or locally improved seed. Even though these were much lower yielding varieties, the farmers did not have a good understanding of how much increase in yield they could get with better seed and how this compared with the increased cost of better seed.
- **Low purchasing power of the SHF at planting time.** Having the funds to purchase improved seeds at the right time is the perpetual cashflow problem for SHF. While this could be met by agricultural finance, there were few commercial banks interested in developing the market for lending to SHF without major guarantees. InovAgro had worked with Banco Oportunidade for the previous three years, but only succeeded in reaching 972 SHF due to restrictions on Know Your Client (KYC) bank requirements - must have an ID and a tax number (NUIT).

The New Strategy

The new strategy was centered on identifying seed companies with an interest in developing the market for certified seeds and then partnering with them to introduce new approaches and co-fund activities that would address the following issues:

- **Creating demand for certified seed.** Getting the seed companies to take the lead on organizing demonstrations and field days with SHF farmers to show the value proposition of using certified seeds (even if more expensive) and teach them good agricultural practices (GAP) which would help them increase overall productivity. Gender considerations included organizing meetings at times of the day that suit women and simplifying the training language for the less literate women;
- **Promoting the recruitment and use of extension agents and technicians.** Seed companies needed more staff to actually deliver the demand creation initiatives and build the relationships with lead farmers and agro-dealers. In all their training/mentoring of lead farmers and shop attendants, the technicians would emphasize aspects that promote more women participation;
- **Increasing availability of certified seed close to the farmers.** Improving the availability of seed close to the farmers would require developing better distribution channels reaching down to the last mile through small shops, village/community-based agents (VBAs) and mobile sales teams selling through village markets. Since the seed companies did not have these relationships, they needed to be developed. Seed companies were encouraged to promote small seed packages that could be afforded especially by the less resourced women farmers;
- **Improving the quality of the seed.** Small seed companies did not have well trained staff and inadequate laboratories to test for and ensure the quality of the seed that was being produced. InovAgro had helped the NSA to design a private sector seed inspection (PSSI) system, where seed company staff would be trained by the NSA and then accredited. This would enhance the quality of the seed produced by the seed companies and their out-growers;

- **Improving the management of the seed companies and agro-dealers.** Because of the sound and trusting working relationship InovAgro established with the firms, we carried out in depth assessments of a number of the firms and helped them to identify internal management challenges and provide some support to them to address those challenges. InovAgro would explore more direct capacity building of the seed companies; and
- **Addressing farmer purchasing power.** With the limited outreach from commercial banks, InovAgro introduced the Fundo Agricola in 2015. This initiative that leveraged Mozambique's extensive village savings and loan association (VSLA) networks to help farmers save for the



purchase of inputs at planting season and would connect the farmers more directly to the seed companies, addressing information asymmetries.⁶ Stimulating the introduction of new financial systems and insurance products will facilitate access to funds to purchase certified seeds.

Strategy implementation

Outreach and partner identification

InovAgro aggressively started to identify and reach out to all possible seed companies in Mozambique, with the intent to attract the best and most interested partners. InovAgro would explain its vision on the opportunity for them to build a stronger market for their seed by increasing outreach and demand creation. InovAgro's doors were open to all seed companies with an interest in working in the North, and InovAgro also sought out strong seed companies, both in the South and Center of Mozambique as well as neighboring countries to encourage them to enter the market in the North.

InovAgro would carry out in-depth discussions with seed companies to talk through their vision for growth, the constraints they faced, and help them design strategies to meet their goals. Following these strategic discussions, InovAgro and the partners would jointly design a bespoke set of activities tailored to address the challenges the companies were facing to meet those goals.

Due diligence and engagement management

Having learned from earlier experiences of the importance of careful partner selection, InovAgro applied a due diligence process to each partner to ensure that they had both the **will** and the **skill** needed to implement the agreed upon activities and respect the commitments. InovAgro signed partnership agreements with each of its lead firms which summarized all the strategic discussions, established a common set of objectives (what the company would get out of the partnership and what the project would get out of the partnership) and then laid out all of the activities to be carried out over the course of the year and assigned responsibilities to each partner. Each agreement specified the anticipated results in terms of farmers reached, sales of seed achieved, and other factors necessary to achieve the value propositions for the companies. In all cases, InovAgro put the partner firms in the lead on all activities as the objective was for the firms to build their own business models to grow into the future. Levels of financial support by InovAgro were small, as the main value that InovAgro brought to the companies were strategic approach and linkages to the right local partners. InovAgro contributions were always less than 50% of the needed amounts in the first year and decreased in every year thereafter. Most of InovAgro's financial contribution was in capacity building, monitoring, and supporting the firms to introduce extension services to build stronger relations with their SHF.

⁶ Grant, W. Innovations in savings led input finance – the Fundo Agricola. April 2020.

Focused partner engagement activities

The range of activities which InovAgro supported with the seed companies, different for each company, but could include:

Demand creation by farmers

The activities focused on the recruitment and training of company extension agents who would facilitate to organize demonstration plots and field days; the identification and training of lead farmers to manage the demonstration plots and field days for the seed companies; and promotional outreach direct to the SHF by providing promotional seed packs; support to firms to work through community radio to promote their seed and other inputs as well as share good agricultural practices, etc.

The desired outputs from these demand creations activities by the seed companies would be the numbers of demonstration plots in place, numbers of field days organized, and the numbers of farmers reached through them to stimulate demand.

Distribution network development

The distribution network activities included helping the seed companies to identify and contract existing agro-dealers and supporting the training of the agro-dealers and the branding of the agro-dealer shops to reflect the seed company. In some cases, the seed companies wanted to open their own retail shops in the InovAgro districts. The distribution networks were supported by activities to promote demand for the shops to sell the seeds of the seed companies including installing billboards, arranging radio advertising and programming, and participation in seed fairs.

The desired outputs from these activities would be captured in the numbers of agro-dealers collaborating with the seed companies to deepen their outreach and the strength of the distribution channels.

Strategic Development of the firms

Many activities also focused on the strategic side for the seed companies to help them make better informed decisions and to deliver on them. Activities included carrying out market surveys, improving internal strategic models; introductions to the proper stakeholders to speed engagement, establishing new distribution points and recruiting accrediting seed inspectors. In 2017, InovAgro assisted a number of the larger seed companies to carry out detailed internal capacity assessments (including assisting them to understand their financials and sources of profitability) to help them develop their own internal capacity building plans, which they then implemented.

The desired outputs would be better managed seed companies with stronger internal quality control measures, stronger financial practices, and better distribution and communications strategies.

Agro-dealer development

As the number of agro-dealers expanded, InovAgro began working directly with the larger ones helping them to expand through direct training and mentorship. Capacity building of agro-dealers included formalization of business (record keeping, financial reports, cashflow management); agro-dealing systems (supply and stock management; store layout, pricing and costing, managing leakages/breakages/waste; storage, customer care, etc.), and developing sustainable business linkages to the distributors and seed companies.

Stimulating new marketing channels

As many of the seed companies and agro-dealers sought to get their sales deeper into the rural areas, InovAgro leveraged the local seed fairs, by encouraging a critical mass of suppliers to participate with their branded products. These seed fairs were timed to coincide with periods when farmers had money to buy seeds. This includes the commercialization season and the period when farmers distributed their savings through the InovAgro promoted Fundo Agricola. InovAgro supported the commercial organization of such fairs, but as commercial ventures, those fairs proved most appropriate near to larger market towns, but not profitable in the deeper rural areas. InovAgro continued to support participation of distributors and agro-dealers in the self-organized village markets.

A number of the agro-dealers also invested in opening community-based retail outlets, where the seed fairs had proven a viable market for seed sales.

Measuring the desired outcome

All of these elements would lead to stronger and deeper networks operating in Northern Mozambique to build the seed market for SHF, which would be measured by increasing volumes of certified seed being sold to steadily increasing numbers of poor SHF to increase their productivity. This deeper market system would be reflected in the following characteristics, which would combine to build demand and lead to those sales:

- Numbers of seed companies actively selling in the North;
- Numbers of extension workers recruited by the seed companies and agro-dealers;
- Numbers of authorized agro-dealers working closely with seed companies;
- Numbers of new shops opened; numbers of VBAs contracted; and
- Numbers of seed fairs organized and attended.

THE EVOLUTION OF THE MARKET SYSTEM

When InovAgro started, in 2011, the structure of the seed distribution was dominated by the government and projects as noted earlier. It was not a market system to serve SHF, as the seed companies historically sold primarily to government, NGOs or to large commercial farms, with almost no sales to SHF. Agro-retailers sold mostly chemicals or vegetable seeds, but very little certified seeds for maize, sesame, soybean, groundnuts.

Structure of Seed Sector relationships in InovAgro Districts in 2011

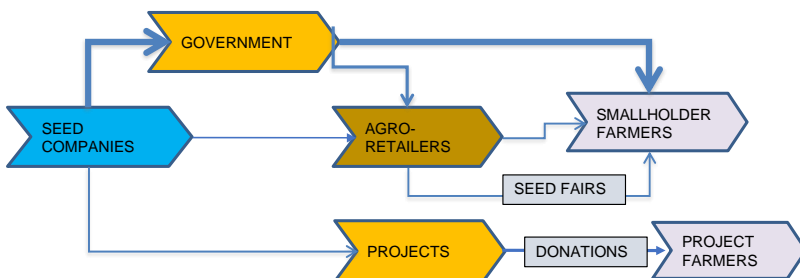


Figure 5: Structure of seed sector relationships in InovAgro districts in 2011

By early 2014 the structure had changed even more as the government significantly scaled back from the seed distribution model and there were few direct linkages between the seed companies and the farmers. The seed companies were losing sales and wanted to start building markets directly with SHF. This was the scenario when InovAgro started implementing its realigned strategy.

Structure of Seed Sector relationships in InovAgro Districts in 2014

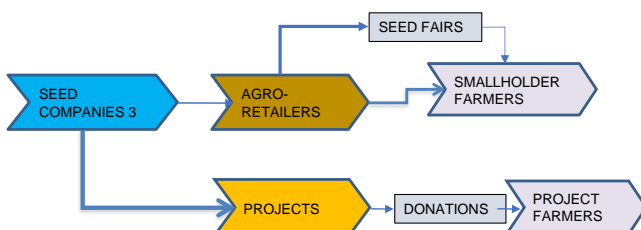


Figure 6: Structure of seed sector relationships in InovAgro districts in 2014

The pilot phase – 2014/15 and adaptations 2015/16 (2 years)

InovAgro started implementing the realigned strategy at the very end of 2014. In the first year, it managed to engage with Pannar, Oruwera, and Phoenix Seeds. In the second year, it added Klein Karoo (K2), JNB, Ikuru, Sementes Nzara Yapera (SNY), to bring the number of partners to seven (see annex 1 with list of partners).

Pannar was InovAgro's first partner, and signed on to organize demonstrations and field days, open a seed distribution warehouse in Gurue, start using field extension agents, and build stronger partnerships with agro-dealers (including training and branding). It was also the biggest seed company in the region, re-entering Mozambique from South Africa after having withdrawn in 2013. As the biggest seed company in Mozambique, InovAgro was able to leverage its partnership with Pannar quite effectively to attract other participants. Pannar's participation brought along many of the other companies that wanted to keep up with the industry leader (good competition).

A second major coup was bringing Klein Karoo on board in early 2016. While they had been active in the South, working out of Chimoio, they had not been interested in the north for a number of reasons:

- They did not understand the commercial opportunities presented by the northern market. They lacked a clear business model that they could use to expand to the North;
- They had no relationships with stakeholders in the Northern region, particularly the agro-dealer network with whom they could work with to advance their commercial interests; and
- The distribution logistics to service the northern markets with seed was considered to be prohibitive, particularly considering the distance from the south (Chimoio) and the bad road networks.

The leverage InovAgro brought to K2 (and other partners) was on multiple fronts:

- InovAgro had relationships with the agro-dealer network in the North. The project was a trusted business facilitator. It managed to create platforms for K2 to engage directly with the agro-dealers in the north to discuss Terms and Conditions for commercial collaboration. The project acted as "marriage brokers" between these commercial parties.
- InovAgro had strong relationships with business regulatory authorities in the North. In this respect, the project was able to introduce K2 to government and community leadership structures enabling the company to register their operations in the North as well as to penetrate and gain access to communities that were supported by InovAgro.
- InovAgro had conducted several commercial studies on the seed market in the North. These studies were made available to K2 (public information that we also shared with other seed companies). K2 used this information as initial primary market intelligence to develop their expansion strategy to the northern markets. In this respect – InovAgro was able to fill in an information gap which K2 had on the commercial opportunities that they could explore in the Northern region. The company eventually conducted their own market studies to strengthen their competitiveness (and to adapt to company values and unique product selling points) but the early establishment intelligence had largely been secured from InovAgro supported market studies.

With the introduction of InovAgro's new approach, the market system started evolving in the right direction, with seed companies starting to drive the outreach to SHF, working through networks of agro-dealers. The approach was so successful that the seed companies adopted it as part of their core business model and started replicating it in districts through-out the North. This major spillover, as they expanded beyond InovAgro's 11 target districts is a key aspect of the MSD approach. K2 reported:

Once in the North, we were working everywhere, in all districts. We were applying the InovAgro tools in all those places. We signed up new partners, SNV, AGRA, and Horti-Sempere (Swisscontact) in the North because InovAgro had introduced us. In fact, we started our relationship with Swisscontact in the North and then brought them back to Chimoio (even though they had been in Chimoio all along). InovAgro helped to guide us on priorities and made life easier. We engaged in many new things because InovAgro invited us and made it easy to participate.” Julius Mapanga, Director Operations Manager, Klein Karoo

By the end of 2015, the seed sector relationships were changing. Seed companies were organizing demonstrations and actively marketing directly to SHF through participation and information sharing at seed fairs.

Structure of Seed Sector relationships in InovAgro Districts in 2015

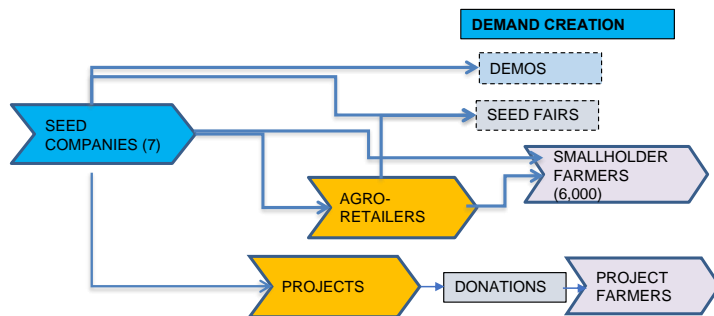


Figure 7: Structure of the Seed Sector relationships in InovAgro Districts - 2015

The scale up – 2017-20

By 2017, the market system was deepening. More seed companies were active and had stronger relations with the agro-dealers. Firms were beginning to specialize more, and the seed companies were starting to transfer some of the direct outreach to the SHF to the agro-dealers. The year 2017 also saw the entry of dynamic distributors of agricultural inputs (usually larger agro-dealers who expanded into distribution in their geographic areas) who would interface between the seed companies and the agro-dealers. This reflected an increasing sophistication of the market and increasing specialization. More seed companies were working with more agro-dealers and the agro-dealers were starting to take on greater responsibility for the direct marketing activities (demonstrations and field days) for the SHF.

At the same time as seed companies and the agro-dealers were promoting their products, the SHF were responding with greater purchasing power. The Fundo Agricola (FA) began to emerge as a source of demand to engage directly with seed companies, with more than 4,700 members by 2017 saving \$44,000 to purchase seeds. InovAgro introduced a more organized system with district management committees (DMC) that could centralize demand and make it more interesting for seed companies to engage. This helped the sector (as depicted in figure 4, below) to evolve and deepen even faster.

Structure of seed sector relationships in 11 InovAgro Districts: in 2017

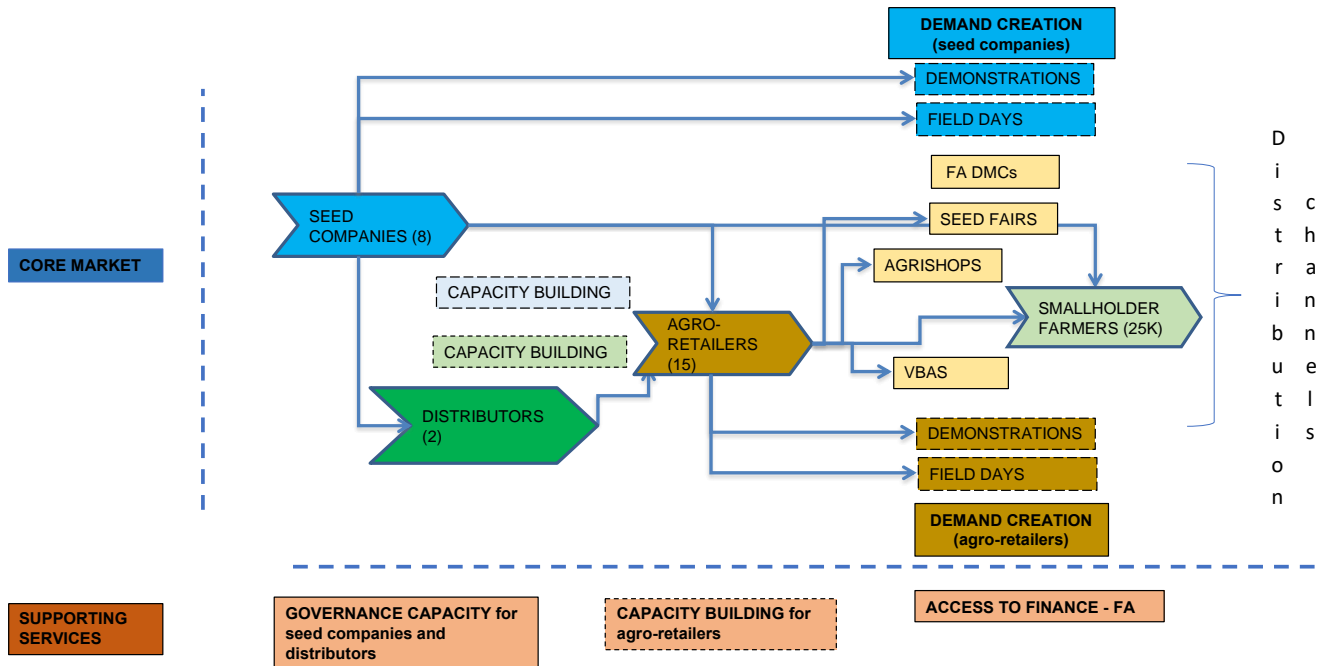


Figure 8: Structure of seed sector in 2017

By 2018, expansion was accelerating. The next major coup for InovAgro was convincing Seed Co to re-enter Mozambique in an aggressive manner. Seed Co had left Mozambique in 2011, but after numerous contacts Seed Co signed a partnership agreement with InovAgro (85% paid by Seed Co) in 2018 to re-enter Mozambique in the North, where it would organize 300 demonstrations and hire 3 extension agents over 2 years. As with the engagement with K2 in 2015, InovAgro served as a facilitator to smooth and speed their introduction into the North.

In 2018, the Fundo Agricola also started to reach scale, expanding from 4,700 to over 12,000 members. These members saved \$113,000 to purchase inputs, making them explicit partners for seed companies to engage with. By 2019, the FA membership expanded to more than 17,000, with savings of \$258,000 demonstrating solvent demand and purchasing power. The Fundo Agricola were comprised of 55% of women, so were also increasing the access to certified seed by women. Seed companies and their distributors or lead agro-dealers were developing stronger relationships with the FA DMCs and arranging more demonstrations near to the FA groups to promote their products.

Evolving dynamics

There has been a big change in dynamic by the larger multinational seed companies – Bayer, Syngenta, K2, Pannar. While their primary sales are to large farmers and large companies, they have seen the value of building a market with the SHF and have been packaging product in smaller volumes to serve smaller clients. While they had initially started with vegetable seeds (high value, low volume), they have now moved to the expanding markets for certified seed for cereals. Their strategies have evolved as well now focusing on working through the distributors rather than going direct to farmers.

The rise of distributors has been very important in the North. Some of the distributors are ex-staff of the big seed companies and are playing a very important role in linking agro-dealers and seed companies. The owner of PROMA explained the changes in agro-dealers since 2017:

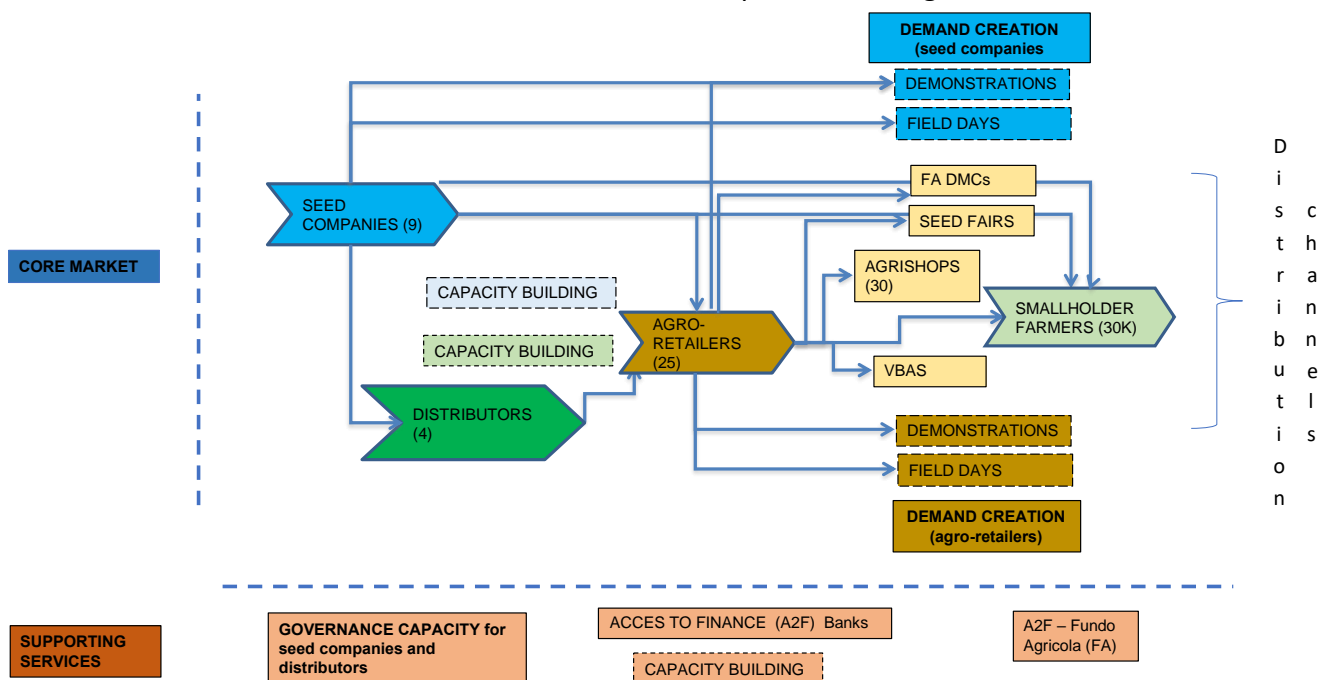
“From few agro-dealers and an unstructured sector in 2017, it is now becoming much more structured. I am selling to more agro-dealers and am being approached all the time by agro-dealers who want to work with me. I don’t need to chase them but need to screen them very carefully so that they do not cheat me. The roles are changing; the seed companies are pulling back from the direct sales to farmers and doing this through more of the agro-dealers (and distributors).” Promise Sabau Waize, owner, PROMA

The distributors are also playing an important role in building the technical capacity of many of their agro-dealers as they expand their sales. One of the new distributors, who has grown his business from straight retailing explains how the sector is changing.

“My sales now are about 40% through agro-dealers and 60% direct sales through my two shops, but I expect to grow that to 60/70% through agro-dealers, if I can develop strong relationships. The main weakness is the quality of the agro-dealers. Many are just in it to make a margin without knowing what they are selling, so I provide them with training on the technical use of the products. However, they still have very weak business practices.” Heinrich van der Merwe, owner, Agri Con

By 2020, the seed sector in InovAgro’s 11 districts had deepened even more for selling certified seeds to smallholder farmers. Roles were becoming more specialized, as more seed companies were targeting sales to SHF working through agro-retailers and distributors. Hundreds of lead farmers had been trained to organize demonstrations and field days, and many of the agro-retailers were increasingly working through mobile sales teams, agri-shops and village-based agents to reach the last mile. Relationships were also strengthening with the District Management Committees of the Fundo Agrícola whose purchasing power was now in the hundreds of thousands of dollars.

Structure of Seed Sector relationships in 11 InovAgro Districts in 2020



This deeper network of market actors in the agricultural inputs sector, working more closely and directly with the SHF, was affected by the government regulations put in place to address the potential spread of COVID-19. But the firms were able to collaborate and to adjust their approaches to ensure their ability to continue delivering demand creation field days by pivoting their strategies and emphasizing training of their lead farmers to transmit even more information to the SHF. This deeper system was more resilient and able to adapt.

Other parallel programmes promote the seed sector

InovAgro has not been the only company working with the seed sector in Northern Mozambique, though it was the first one taking a market systems development approach which put the seed companies out in front in the relations with the farmers. Various other programmes have provided assistance to build capacity but had done little to address the overall market system, including: USAID projects supported with equipment to local seed companies like Phoenix, Oruwera, etc. building their physical capacity to produce quality seed; AgDevCo invested in several companies (including Phoenix); and Technoserve invested in developing a cadre of seed multipliers and turning them into a seed cooperative (COPAZA).

Numerous projects have focused on strengthening agro-dealers. Inova has taken an MSD approach to working with agricultural input distributors to build stronger relationships with their agro-dealers and build more client centric approaches. IFDC had supported capacity building of associations and local agro-dealers. Many other programmes (IFAD, FAO, AGRA, GIZ, CLUSA) have promoted the adoption and distribution of seeds through subsidized voucher programmes that have worked through agro-dealers. The great increase in purchasing power driven by those voucher programmes led many new agro-dealers to start up to serve that market.

Whether all those new agro-dealers will be sustainable still remains to be seen. If the farmers will be able to generate the same purchasing power with their own funds, they will be sustainable; but many may close when the funding through those projects funding for input sales end. But even if there are dropouts among unsustainable agro-dealers, there has been a lot of demand creation among farmers. Tatiana Mata, the CEO of Mutiana says *“growth in the sector will continue. Farmers have gotten a better knowledge of the benefits of certified seeds and are willing to invest more.”*

Challenges that are slowing the transformation of the market

Company challenges

Production and sales of certified seed are growing steadily, but not as fast as many supporting agencies would like. The financial, management and technical capacity of the seed companies, distribution companies and agro-dealers are improving but are still weak in part because of the still relatively low sales. This is a gradual process of development which can only evolve so quickly. The nature of the local companies, with limited financial resources, limited governance and managerial capacity, and weak systems prevents them from growing very rapidly. It takes time to develop a sophisticated company that can respond to the production and marketing challenges. On the production side, it includes the financial capacity to produce, treat and store the seed a year in advance. On the marketing side, it involves identifying clients, promoting and building demand, establishing a distribution network that ensures that the seed is in the right place at the right time, and that the farmers are able to pay for it.

Multinational companies, which have better systems and structures, are better placed to grow quickly. But even they have to balance their structure to the size of the business. They need to cater for activities across countries and cannot greatly increase production to match unexpected demand (as from the cyclones). But they are able to bring in lessons from other countries and the managerial and financial resources to weather storms and expand more quickly. At the same, when there is demand from big buyers, such as NGOs or the Government, for large one-off contracts, it distracts them from building a stronger agro-dealer network for distribution.

Many of the distributors and larger agro-dealers are staff from the larger companies (many multinationals), where they have gotten good training and understand the business. Because of their understanding of the industry, they have been able to insert themselves and be productive, quickly. They have linkages with the large seed companies and know what the standards are. They are able to work

effectively with smaller agro-dealers to strengthen them technically, but not necessarily on business management (though they are well placed as points of leverage for reaching them). They have weak governance systems and are constrained of cash flow to support their growth ambitions.

Structural challenges

Still major challenges with NGO and government led programming that risks undermining the progress of the seed companies to sell directly to the SHF.

- Government and NGO response to the cyclones was to purchase lots of seed to distribute to those SHF whose fields and seed were destroyed by the cyclone. Large bulk purchases are very attractive for seed companies but could disrupt their focus on supplying their emerging distribution networks for commercial sales to SHF, damaging that long-term market for them. Multinationals are able to import some seed to ride through sudden increase in demand;
- Government's new initiative through Sustenta to purchase thousands of tons of certified seed, fertilizers and chemicals will disrupt the market and delivery channels for certified seed to SHF. While some seed companies will have their markets (selling to the GoM), they will reduce focus and investment on the end markets that they have been developing over the last five years and will risk losing the confidence of their SHF clients. The agro-dealers will experience reduced demand as leading farmers (with potential to buy seed) are the ones most likely to receive seed on through the government input packages;
- Other projects in the InovAgro project regions are also providing heavily subsidized input packages, starting with 100% subsidy and gradually reducing it. The positive is that they use agro-dealers for processing the vouchers and expose farmers to the use of the seeds, but they disrupt the culture of farmers saving and buying their own seed. They also target the farmers who are better placed to buy their own seed;
- While the Private Sector Seed Inspector initiative is building capacity of seed companies to produce better seeds, the national seed inspection service is challenged to address the proliferation of fake seeds on the market. These fake seeds, which will not provide improved yields, risk undermining the value proposition to SHF and weakening their trust in the system; and
- Weak supporting systems, such as access to finance for SHF, will continue to constrain demand. This demonstrates the interconnectedness of market systems, and the need to dig deep to understand and address the root causes in the systems which we are targeting.

CONCLUSIONS AND LESSONS LEARNED ABOUT ADAPTATION AND GOING TO SCALE

Conclusions

Over the 10 years of implementation, InovAgro initiated a wide range of interventions to build the market systems in support of SHF in Northern Mozambique. The market system for certified seed was almost non-existent in 2010 in Northern Mozambique but has developed significantly, in large part due to InovAgro's support. But it has not been a smooth linear path. Building such market systems is a complex process which needs to take into consideration many factors. The initial interventions encountered many challenges, primarily because there were so few viable firms to work with in the project districts and even those had weak capacity. The business culture of many of the companies was more opportunistic and not yet ready for developing good, long lasting relationships with SHF. Distorting government policies and donor/NGO programmes often disincentivized firms from making good business investments. Farmers had low levels of awareness of the value proposition for certified seeds, had low purchasing power, and had developed bad habits of expecting free inputs from government and donors or not having to pay back loans. InovAgro tried a number of pilot interventions, many which led to dead ends, but learned from each of them and incorporated changes into the next iteration of the intervention.

In 2015, after four years of analysis, experience, learning, and building relationships with the private sector and government, InovAgro re-aligned its strategy to build incentives for private seed companies to drive outreach to farmers, transfer knowledge and sell inputs. By using sound facilitation principles and putting the lead firms at the front of the interventions that were designed to build demand for their products through education and capacity building, win-win business relations were established for private firms to lead the development initiatives because they made good business sense.

The case study has highlighted the tremendous progress that has been made in the last five years. InovAgro introduced techniques to disrupt the behaviour of a few key market actors and change the way they targeted SHF. This led to changes in their behaviour, followed by copying by other market actors who needed to compete, establishing new norms for behaviour by market in the agricultural inputs industry to focus on demand creation through demonstrations and last mile delivery. Many new market actors are engaged, relationships are improving between seed companies, distributors, agro-dealers, lead farmers and the SHF. There is much better understanding by SHF of the value proposition of purchasing certified seeds and they are saving more money to buy inputs. But the market system is still not yet working as well as it could be for SHF; it is still only reaching a small percentage of the total potential market. While the rate of adoption and change is accelerating, it is perhaps halfway towards what we would consider a “strong market context that is working for the poor”; there is still not enough supply to meet the potential demand or distribution channels to get it to the last mile and many issues remain on the demand side, including purchasing power of farmers.

InovAgro invested quite heavily in building relationships with leading seed companies and attracting new firms into the region. It also focused on strengthening the relationships between market actors and addressing policy and other supporting market (such as access to finance) to realize the value propositions. As a result, the numbers of firms have increased and the volume of transactions and sales are increasing steadily, there is also greater specialization and coordination/cooperation between the stakeholders. The market system is progressing very favorably, but we have not yet created the strong, deep market system that we can say is working for the poor. We have laid a good foundation and are able to start gradually pulling back support, but we are still in an emerging market context.

The figure below, captures the direct results of InovAgro’s MSD approach in the project districts to date, and the anticipated evolution in the future based on progress to date.⁷ Confirmation from lead firms on their adoption of the business strategies introduced by InovAgro and their use in different parts of the country are significant. Though InovAgro did not count the outreach from our partners in non-target districts, the partners took the outreach and market building methodologies encouraged by InovAgro into many other districts affecting the performance of SHF in those areas.

From the emerging market context, there is still a large scope for improvement in order to reach the point where all SHF can have access to the markets if they so desire. The figure also presents a continuing progression of deepening of the market system and proposes a set of realistic characteristics of where the system should be in five years, by 2025, based on the experience over the past six years. Since many of the initiatives are already underway, many of these changes will occur naturally, driven as a part of the business strategy of the seed companies, distributors, agro dealers, and even the banks which are entering the market. However, some elements, especially improving the access to finance will still need steady investment. These characteristics demonstrate how the market system will have started taking off on its own, with many new entrants, deeper relationships, and significant uptake by the farming communities.

⁷ Note, the figures do not include potential indirect effects on the wider market in the north (beyond the 11 districts).

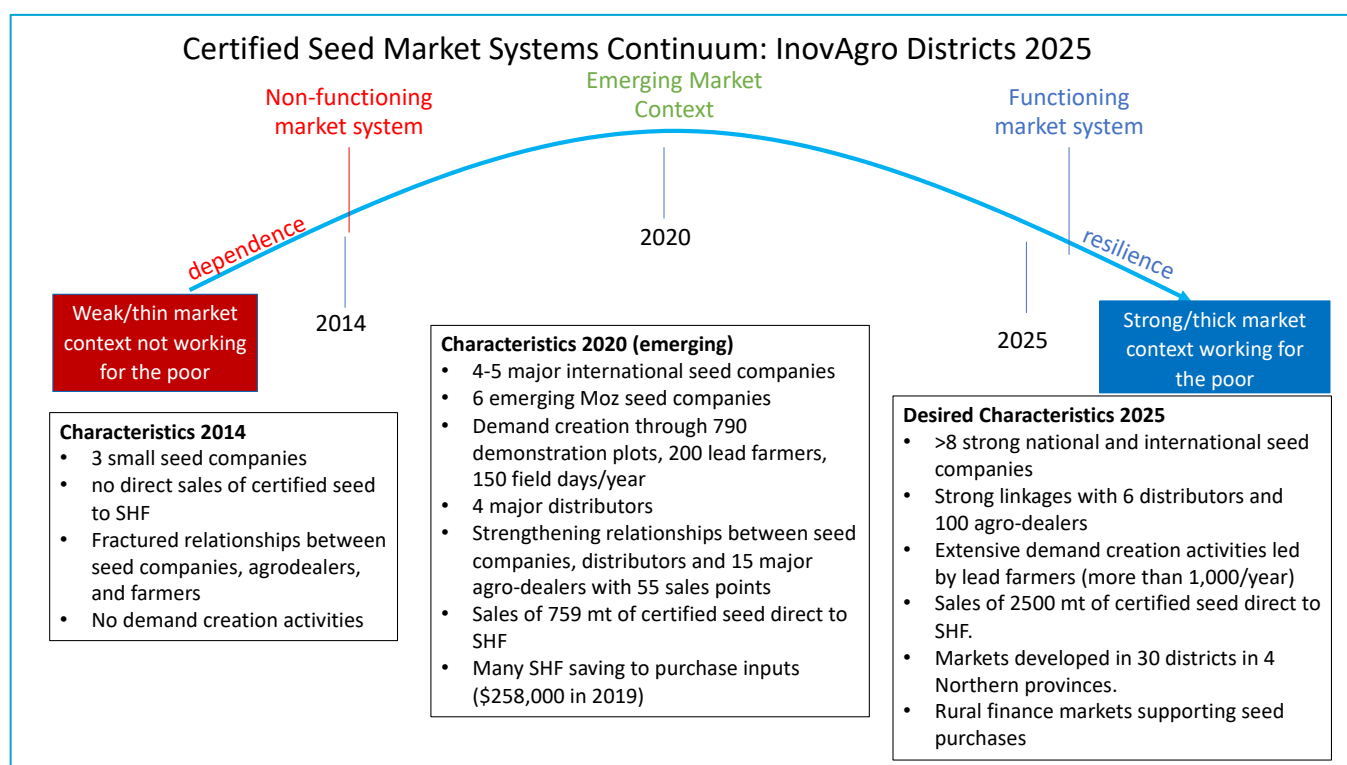


Figure 9: Anticipated characteristics of the certified seed market system in Northern Mozambique in 2025

But it is not a foregone conclusion that the market system can achieve those targets. Continuing to develop the market system to the point where it is fully functional may still encounter many challenges. The new expanded Sustenta initiative, just launched by the GoM which will provide thousands of tons of certified seeds and inputs to emerging commercial SHF may lead to changes in incentives by both seed companies and the SHF. Seed company behaviour will switch back to making easy large sales (in the hundreds of tons) to an individual buyer rather than the much harder work of selling direct to the SHF. The SHF who will take advantage of the handout programme and “re-learn” that they can wait for the government to give them the inputs rather than them having to purchase them, as SHFs anticipate “debt forgiveness” from government initiatives. Financial institutions may be further disincentivized from engaging in distorted markets. And when the dependence creating government programme ends (as all programmes do), the market system may be much weaker. A market-oriented improvement would be to “distribute” the input packages through agro-dealer networks and get the benefiting farmers to make some deposits to the input packages. It is still too early to figure out the effects of the government programme, but historically and experiences from other countries show potential massive disruption to market systems. Care must be applied to continue to incentivize the market actors to focus on their target market: the SHF.

Lessons learned

InovAgro’s experience in building a better functioning seed/input market system, where suppliers are investing in creating demand and SHF are continuing to demand inputs, offers a number of lessons.

1. **Invest in learning and building relationships.** It takes time to really understand the market system and to get to know the market actors and build trusting relationships with them. The projects need to invest heavily in knowledge (getting the evidence to design strong value propositions for private companies) and in building relationships with all of the stakeholders, including government, donors, and the private sector;
2. **Building market systems is a gradual, non-linear, and time-consuming process.** The length of time it takes to build a strong market system that is working for the poor will depend on where the market system is in its evolution (from where the project is starting), the capacity of the market actors in the system, and the recognition by both the suppliers and the buyers of the benefits to change their behaviors. The project needs to be ready to adapt as circumstances change

(exchange rates, security situation, weather, government policies, corporate strategies) and pivot their support to partners accordingly.

3. **Constant monitoring of market actors and the dynamics in the market system is necessary.** InovAgro changed its strategic approach quite radically four years into the program. It had false-starts on initiatives that did not work out and changes in corporate strategies from leading partners which evolved due to ownership changes or changes in management strategies. However, the government's withdrawal from the seed markets in 2013 opened up significant opportunities for local and multinational firms to enter into the Mozambican market. So, the project team needs to be constantly monitoring the market actors and the dynamics within the market system.
4. **Leverage experience from around the world.** MSD approaches being used in other countries were introduced to stimulate responses in Mozambique. InovAgro leveraged lessons learned from Nigeria and Ethiopia to adopt the new input led approach which focused in on the clearer and higher value proposition for input companies to build demand for their products. Even so, the time to return on investment is longer with an underdeveloped market, so the project needed to be patient and not try to accelerate through its interventions too quickly.
5. **Be strategic in crowding in effective business partners.** Projects should be proactive in identifying the right resources in the region and bringing them into project areas. Identifying Pannar as the first partner, was influential for getting other seed companies to come along – they had the right resources to invest in innovations and set the standard for others who wanted to compete to enter into the system. InovAgro was then able to communicate these approaches more effectively to the local companies. InovAgro also attracted K2 to the North with good business intelligence and support in building relationships and then engaged SeedCo directly at their corporate offices in Harare to get them to invest in Northern Mozambique.
6. **Partner corporate strategies evolve with time and with ownership.** Projects working with private companies must be ready to adapt to changes in private partner strategies, and to pivot their interventions as some opportunities close and others open up. Pannar changed ownership to Pioneer, then to Corteva during their engagement with InovAgro, and each brought a different perspective and altered their investment strategy. K2 changed their strategy around retail sales (working through distributors), which opened up new opportunities for distributors (which InovAgro was able to leverage to deepen market outreach).
7. **Need to address challenges in interconnected market systems.** Individual market systems, such as the agricultural inputs market, are dependent on other market systems, such as access to finance for SHF, to be functioning effectively. InovAgro did not have a mandate or the resources to address the overall binding constraint of access to finance but did make some good inroads by providing an alternative model based on savings that is very useful for the target beneficiaries who will most likely never access bank loans. But until this adjacent market system is fixed, it will continue to hold back the growth of the agricultural inputs market.
8. **Leverage/integrate support from other programmes.** It is not possible for any one project to take credit for the development of a whole sector. It takes many different types of support and a heavy investment from the private sector. But a good project will understand all that is needed and facilitate between all of the other initiatives to drive towards a more effective market system. After InovAgro started, many other donor programmes also began working in the seed sector in the North. Some donor projects provided investment capital to help seed companies to upgrade their equipment for seed treatment and storage and laboratories, while others helped them organize more demonstrations. Several used infusions of funding through voucher programmes to stimulate the market for agro-dealers to supply SHF. Interventions by organizations like Financial Sector Deepening Mozambique (FSDMoç) to assist commercial banks to develop agent banking models penetrating the rural areas will help farmers to save to purchase inputs. Forward looking insurance companies like Hollard, supported by the World Food Programme and the SDC, are introducing new products that reduce the risk of investing in certified seed.
9. **Coordinate with the regulatory environment.** In parallel to its work with the private seed companies, InovAgro worked closely with the government (in particular the National Seed Authority and National Department of Agriculture - see case study) to address critical enabling environment constraints in the overall sector. InovAgro led the work with the NSA to create the PSSI, but was supported by other FAO and USAID projects. USAID's SeedTrade has strengthened QA/QC for seed companies to invest.

ANNEX 1

Partner category	Name of the partner	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Seed Company	Nzara Yapera		x	x			
Seed Company	Pannar	x	x	x	x	x	
Seed Company	Oruwera	x	x	x			
Seed Company	Phoenix Seeds	x	x	x	x	x	x
Seed Company	K2		x	x	x	x	x
Seed Company	JNB		x	x			
Seed Company	Ikuru		x	x	x	x	x
Seed Company	SEED Co				x	x	x
Syngenta	Syngenta			x	x		
Distributor	Casa do agricultor				x		
Distributor	Proma Commercial						x
Distributor	Agri Con				x	x	x
Agro-dealer	Agro Trading				x	x	
Agro-dealer	ADECOZA				x	x	
Agro-dealer	Janeiro Comercial				x	x	
Agro-dealer	CERELH				x	x	
Agro-dealer	Helder Commercial					x	x
Agro-dealer	Mutiana Investimentos				x		
Agro-dealer	Aulado Serviços				x	x	
Agro-dealer	Olima Agro Negocio					x	x
Agro-dealer	Kafuma Commercial					x	
Seed Multiplier and agro-dealer	Olima Farm Lda					x	x
Seed Multiplier and agro-dealer	Agro Rural Servicos					x	x
Agro-dealer	MMB				x		