



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



## Feed the Future Mozambique Agricultural Innovations Activity (FTF Inova)

Final Performance Evaluation Report  
July 2022



**USAID**  
FROM THE AMERICAN PEOPLE

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# Acronyms

|          |                                                                       |
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| APROSE   | Association for the Promotion of the Seed Sector                      |
| CdA      | Casa do Agricultor                                                    |
| ETG      | Export Trading Group                                                  |
| FTF      | Feed the Future                                                       |
| IDN      | Inputs Distribution Network                                           |
| INOVAGRO | Private Sector led Agricultural Growth Project in Northern Mozambique |
| K2       | Klein Karoo                                                           |
| MSA      | Market Share Associates                                               |
| MSD      | Market Systems Development                                            |
| NGO      | Non-Governmental Organization                                         |
| RAMA     | Resilient Agricultural Markets Activity                               |
| SCM      | Supply Chain Management                                               |
| SHF      | Smallholder Farmer                                                    |
| SS       | Supporting Services                                                   |
| TOC      | Theory of Change                                                      |
| UBS      | UniLurio Business School                                              |
| UCM      | Universidade Católica de Moçambique                                   |
| USAID    | United States Agency for International Development                    |

# Executive Summary

Mozambique is an agricultural country with over 70% of the population dependent on agriculture for their livelihoods. Agriculture in Mozambique is dominated by smallholder farmers, who account for most of this sector's production. Smallholder farmers in Mozambique largely practice rain-fed agriculture, low-intensity fertilizer, minimal pesticides and use traditional varieties of crops (mostly using of retained crop as seed). The relative importance of food and cash crops vary mainly depending on the prevailing agro-ecological conditions, but market opportunities and food consumption patterns may also exert some influence on crop distribution. In Mozambique, food crops account for 57% of the total cultivated land and for 90% of the volume of total crop production.<sup>1</sup> These include cereal crops such as maize, rice, sorghum and pearl millet, root, and tuber crops (mainly cassava and sweet potato), and grain legume crops. Horticulture takes up 6.9% of the total cultivated land. Cash crops include cotton, cashew, tobacco, sugar cane, coconut, sesame, soybean, and fruit.<sup>2</sup>

Traditionally, development programs in Mozambique have supported smallholders farmers with direct support in the way of free or subsidized inputs, goods, and services. This has not had the desired effect of changing the livelihood patterns of millions of smallholder rural families, most of whom remain dependent on external support. In an effort to change this reality, FTF INOVA used a different approach - the market systems development (MSD) approach to **stimulate inclusive and sustainable, agriculture-led economic growth, as well as to increase the resilience of the agricultural sector**, both of which are critical to reducing poverty and hunger in Mozambique. Using the MSD approach, sustainability of programme led activities beyond the funding period of FTF INOVA was the key objective. To achieve this, FTF INOVA developed strategic relationships with market actors (i.e. input distributors, seed suppliers, agro dealers, agro processors); supply chain actors (i.e. output buyers, supermarkets, aggregators, retailers) and support service providers (i.e. Universities, ICT firms, marketing companies, transport and logistic firms, community radios), to test innovative business models and new technologies. The innovations promoted by FTF INOVA improved the incomes of Mozambique's smallholder farmers (SHFs) and have put in place the foundation for long-term, sustainable, and inclusive growth in the agriculture sector by capacitating "permanent market actors" to perform their functions better, to the benefit of smallholder farmers and the wider agricultural market system.

This final evaluation highlighted that MSD is a new approach used by few development partners to deliver support to rural smallholder farmers in Mozambique. The preference has been "direct delivery" approaches where support in the form of inputs, extension, and mechanical implements amongst others, have been given to farmers for free or at significantly subsidized costs. Whilst this has benefitted those few farmers that managed to access this support, it has done little to strengthen the agricultural market system to deliver similar services on its own. This is what FTF INOVA sought to change, by working with permanent market actors to improve their ability to better service agricultural market actors, especially smallholder farmers, in Mozambique.

## Summary Findings Across the Three Focus Functions

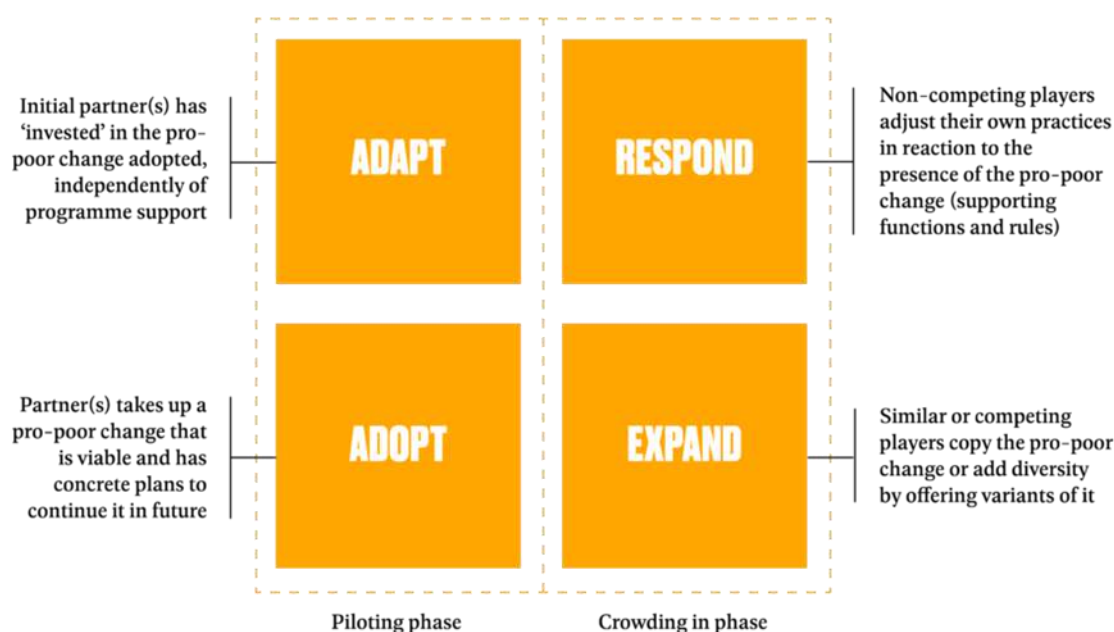
At a high level, FTF INOVA tested successful pilots which have embedded certain behavior changes amongst implementing partners. As highlighted in the AAER framework below, most of FTF INOVA's interventions were on the left side of the diagram, implying that follow on programs like PREMIER and RESINA now have the task of facilitating interventions on the right hand of the framework.

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<sup>1</sup> MINAG, 2014

<sup>2</sup> CAP, 2011

Figure 1 AAER matrix<sup>3</sup>



On the left hand side, the matrix describes individual market actors which the programme supports directly. This corresponds to the piloting stage of the programme when new innovations are tested with different market players (Probe-Measure-Learn-Adapt). Innovations may be products, services, role changes, the uptake of new or changed responsibilities, changes to business models – but always involve a behaviour and practice change. By the end of the piloting phase, behaviour changes should have 'stuck' with the market players that they have been trialed with i.e. they should be fully owned, overseen, and paid for by the players themselves.<sup>4</sup>

On the righthand side, the matrix refers to competing and non-competing market players that operate in the market system. The ambition of the facilitator should therefore be to encourage a market response to changes in behaviour in the actors they are working with directly, in order to improve the scale, sustainability, and resilience of pro-poor outcomes.

At the intervention level, although implementation realities brought about by the COVID 19 pandemic and consequently, implementation capacity within FTF INOVA negatively affected the programme's activities, the evaluation found that FTF INOVA had implemented most of its intended activities across the three market system functions described below. The evaluation noted that FTF INOVA interventions were categorized into 3 important market system functions (portfolios) as summarized below.

- **Input distribution networks (IDN)**- in this portfolio, FTF INOVA worked with input supply manufacturers, distributors, and retailers to improve delivery of agricultural products and services, tailored to the needs of smallholder farmers. Interventions in IDN sought to improve agricultural input delivery and to increase agricultural input products and service for

<sup>3</sup> AAER matrix (Springfield Centre, 2014)

<sup>4</sup> <https://practicalaction.org/pmsd-toolkit/tools/aaer/>

SHFs. At the time of the baseline in 2017, some SHFs were reported to be buying agricultural inputs such as seeds, fertilizers and equipment that were available, which meant that at times they did not find what they required and had to make multiple trips to agro-dealers. Agricultural inputs were available intermittently, especially in the more rural locations outside of major cities. This lack of predictability in available inputs meant that most SHFs did not use improved or high quality inputs as they had to plant within a certain timeframe and could not wait for inputs forever whilst the planting season was progressing. Consequently, it was reported that less than 20% of SHFs were using improved seeds, fertilizers, or pesticides. This created an opportunity for FTF INOVA to work with input suppliers (like seed companies, manufacturers of agrochemicals, retailers, and distributors) to build the infrastructure to deliver to SHFs consistently, on a regular schedule, agricultural inputs that could meet their seasonal needs.

- By the end of FTF INOVA, IDN interventions for last mile input had achieved significant success and laid a solid foundation for systemic change where private sector partners were continuing with activities started with FTF INOVA support. Key examples here include CdA's Rota Certa input delivery model which now reaches on average 15 000 SHFs a month, Bayer which has connected 190 associations with their hub dealers, serving about 17 000 SHFs, Oruwera and K2 retailers working with community agents and VBAs serving approximately 3 725 farmers with improved inputs.<sup>5</sup>
- **Supply Chain Management (SCM)**- in this portfolio, FTF INOVA worked with output buyers like international exporters of agricultural products and domestic retailers like supermarkets to strengthen the quality and quantity of agricultural produce through improved relationships with SHFs and service providers. Interventions in SCM sought to improve purchasing by output buyers from SHFs, increase the value placed by Mozambican consumers on domestic produce commodities and improve the use of service providers by output buyers. At the time of the baseline in 2017, relationships in the supply chain for many agricultural commodities were primarily transactional with purchases taking place on the spot or within a few days with little to no negotiated terms of sale. Critically, SHFs did not know when output buyers would come to purchase, how much they would purchase, or at what price. Similarly, output buyers could not depend on SHFs to sell large volumes of quality produce as it was often on a first-come-first served basis.<sup>6</sup> Through a few probes with private sector actors, FTF INOVA found that incentives such as buyer check-off systems for quality inputs provision, facilitation of access to services and information, transparent supply agreements with pricing per grade/standard, and rewards like bicycles all motivated SHFs to improve their performance and thus enter markets offering these incentives. All these probes lead to increase trust and relationships between buyers and seller.
  - By the end of FTF INOVA, SCM interventions for output buying and quality recognition had achieved significant success and laid a solid foundation for systemic change where private sector partners were continuing with activities started with FTF INOVA support. Key examples here include Miruku's purchases from cooperatives which benefitted 248 SHF suppliers, who were paid for high quality maize and soy, ETG's work with spray services providers doubling as aggregators who facilitated the purchase of 500MT of good quality cashew for processing and Novo Madal's performance suppliers' program (PODEMM) which assessed 337 SHFs as the basis for developing an informed output buying model with incentives and communication tactics that make sense to the farmers. These pilots were successful on the left hand

<sup>5</sup> FTF INOVA Final report, 2017-2022

<sup>6</sup> *ibid*

side of the AAER framework in Figure 1 and are ready to shift to the right hand side for expansion and replication.

- **Support Services (SS)**- In this portfolio, FTF INOVA worked with supporting services providers like marketing firms, universities, logistics providers, information and communication technology (ICT) firms and radios stations to develop models for delivering services to the agricultural sector. Interventions in SS sought to increase the focus on the agricultural sector by service providers, especially those who did not traditionally engage with the sector and improve rewards for quality of agricultural products and services. At baseline in 2017, there were limited services targeting the agricultural sector. Firstly, the sector was highly distorted by government and NGO-subsidized services and service providers saw no incentives to tailor their services towards the agricultural sector, and they did not have a clear understanding of the sector's business opportunities. In addition, agricultural input suppliers and output buyers did not trust the limited delivery capacity of existing service providers. This created an opportunity for FTF INOVA to assist service providers, leveraging the work under IDN and SCM to bring confidence to the service providers that other parts of the market system were receiving the requisite attention to reduce the distortions that existed in the agricultural market system.
  - By the end of FTF INOVA, SS interventions in areas such as marketing, online logistics and private sector aligned graduate training had achieved significant success and laid a solid foundation for systemic change. Key examples here include Tangerine's Cultiva platform which engaged with approximately 1 000 agro-dealers serving an estimated 130 000 SHFs a year (offering a range of services like real time data on stock availability, store demographics and brand presence amongst others) and UniLurio Business School's (UBS) junior consultant model which placed 20 junior consultants reaching 2 000 SHFs via agro-dealers' databases. More importantly, two of the first cohort of interns secured long term employment, one as an aggregator and another as a field officer in Zambézia Province.<sup>7</sup>

### Summary Findings in Relation to DAC Criteria

Overall, stakeholders in the country understood the rationale and objectives of FTF INOVA's novel approach, with almost all private sector partners buying into the approach due to its **effectiveness in creating a platform for sustainable SHF development where they did not have to depend on external support in the long run**. There were a few dissenting voices as well, who did not question the MSD approach per se, but opined that the Mozambican agricultural market system was not yet mature enough for full scale facilitation approaches to be effective, rather preferring a mixed approach of direct delivery and facilitation.

### Effectiveness and Impact

Considering the restrictions including travel restriction, people gathering, meeting size and other social distancing measures brought about by the COVID 19 pandemic and the macroeconomic situation prevailing in Mozambique at the time, FTF INOVA managed to achieve its set targets across all indicators and facilitated extensive market system changes in line with its theory of change. Inova directly impacted the lives of more than 180 000 farmers through increased productivity, efficiency and/or income, while empowering more than 100,000 SHF and more than 130 private sector companies with increased agency.<sup>8</sup> Amongst other activities, FTF INOVA engaged 15 input firms, more than 150 spray service providers, three universities, and more than 500 agro-dealers and agents who directly impacted the lives of 22 000 smallholder farmers. In addition, through FTF INOVA facilitation, a total of 5 725 farmers, of which 36% are women, upgraded their supply of agricultural commodities

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<sup>7</sup> FTF INOVA Final report, 2017-2020

<sup>8</sup> FTF INOVA Final Report, 2017-2022

to meet buyers' specifications and are benefitting from access to high quality inputs, knowledge, and better sales terms.

### **Sustainability**

Most of the interventions have the potential for sustainability and continued growth of outputs and outcomes without further inputs because they aligned with the business model/core business of the partner since they had been involved in the development of the intervention at the deal note/MoU stage. In some instances, the partners have already embedded the innovations into the day to day operations post FTF INOVA. FTF INOVA supported innovations, for example the one stop shop model, have potential for sustainability and have been internalized as part of the business model, but the partners could have benefitted with "a longer project period" working with FTF INOVA. Most stakeholders bemoaned the short time they had to work with FTF INOVA, noting that "*just as we were getting to grips with the model, FTF INOVA ended.*" It will be beneficial if upcoming USAID programs continued with the facilitation of some models started under FTF INOVA to ensure entrenchment of the innovations.

### **Efficiency**

Despite the challenges associated with operating in thin market for core market actors and supporting services, FTF INOVA managed to leverage significant financial resources from its implementing partners, both in cash and kind. The partnership model of FTF INOVA of using the deal note as the basis for commercial partnership ensured that almost all partnerships had co-investment from the implementing partners, in particular private sector partners. In addition, co-creating with the private sector proved to be both efficient and effective as there was buy-in from the onset, reducing the risk of the partner walking away from an activity halfway through implementation.

## **Lessons Learnt Summary**

Some of the key lessons that emerged from the evaluation are detailed below. A more comprehensive description of lesson learnt is detailed later in the report.

### **Systemic Change**

- The pace of adoption and replication of market system probe is dependent on the maturity and sophistication of market system actors and the wider agricultural system within which they operate. This ties in with the view from stakeholders of extending the timeframe of agricultural MSD programs in Mozambique, given the low maturity of the sector;
  - For example, large agribusiness companies noted that most agro-dealers are "behind the counter" and do not go to the field or establish demonstration plots to create loyalty between themselves and the farmers and this limits their ability to be effective partners for them;
- Tied to the lesson above, the pace of replication is also dependent on the effective demand in the system i.e. a system can only support as many private sector actors as the effective demand enables them to run profitable businesses. Therefore, demand creation activities are necessary in a market like Mozambique where effective demand is low both for inputs and supporting services;
- System change in the agricultural inputs sector evolved from simply having more participants to deepening the tools for outreach and making the businesses more efficient and profitable (like the Rota Certa, use of VBAs to reach farmers directly for orders, and catalogue ordering);
- There is real value in attracting new nontraditional supporting service providers like Tangerine (private marketing firm) and universities to engage more in agriculture as this helps to speed the strengthening of the agricultural sector;

- System wide cross cutting interventions, which focus on supporting systems, enhance the ability of smallholder farmers to adapt to market and climatic changes in the environment around them. This makes them better suited to achieving sustainable systemic change than value chain specific initiatives, which are important, but have a much narrower focus;
- When farmers see commitments from buyers to acquire their products, it improves trust which makes farmers eager to upgrade, expand and establish relationships;
  - FTF INOVA sought ways to promote mutually beneficial relationships between output buyers and SHF agricultural produce suppliers, using transparent performance suppliers' network schemes;
  - FTF INOVA portfolio managers noted that "suppliers' clubs were the flagship activity of our programme working with OLAM, Miruku, ETG and Nova Madal because we addressed the problem of trust and loyalty between buyers and farmers."; and
- The length of MSD programs is a key determinant of the extent of systemic change achievable. FTF INOVA portfolio managers noted that, "if the programme had continued for one more year, we believe that the interventions with Ka da Terra, UBS and Nova Madal would have achieved systemic change and influenced wider change in the market system."

### Project Design and Implementation

- FTF INOVA showed that it is necessary to invest time and resources in multiple probes to identify gaps in knowledge, which can then lead to the design of better interventions/business models. A key example here was the OLAM-Isolmoc probe, which led to an improved design of the ETG-Miruku model;
- Co-creating (design, implement, monitor, learn) with key market actors in agricultural system was pivotal to FTF INOVA's success and building ownership by the private sector
  - FTF INOVA's partnership facility encouraged innovation from the private sector and deal notes were more flexible / appropriate than subcontracts/ grants in many cases allowing the partners to lead on implementation;
- Where feasible, constant engagement with Government is required to reduce the distortionary impacts of large direct delivery type programs like SUSTENTA which have the potential to undercut the efforts of private sector led initiatives supported by FTF INOVA;
- Donors should explore ways of advancing credit to SHFs and agro-dealers, or work with banks or MFIs to develop products backed by donor funds to advance production credit to farmers. Supply chain finance was FTF INOVA's solution to limited access to finance. Some examples from FTF INOVA include incentivizing the creation of saving groups, suppliers' clubs in which advanced credit is an incentive for the best performers and crop insurance;
- Large agribusinesses noted that they have to extend input credit to farmers constantly to secure production and this is not their core business. In the absence or limited access to formal finance market, the supply chain finance has proven to be suitable for the environment where the clients are not bankable;
- Development programs like FTF INOVA must be sensitive to the realities of gender dynamics within the household and market system before advocating for gender parity in some areas. For instance, no women wanted to take up the spraying provider opportunity because the work is laborious and suited for men in their view;
- Business models for women participation increased access to markets for women as entrepreneurs, employees, and input customers. However, the integration of such models within the agribusiness should make business sense for them while observing the norms and networks that influence how market actors currently operate and what / who drives innovation to avoid unintended consequences. Examples from FTF INOVA included women working as retailers and savings groups dedicated to accessing inputs at pre-season price

which functioned as a pre-payment scheme. Gender sensitive branding was another example that was used by Oruwera to target female customers; and

- The shift in terms of incentives and rewards offered to SHF who produce more and of better quality (as predetermined by output buyers) is encouraging. Transparent terms and an intent to purchase communicated by output buyers at the start of the season, have motivated commitment to increased productivity by SHF, even during the challenges posed by COVID-19.

## Recommendations Summary

Some of the key recommendations that emerged from the evaluation are detailed below. A more comprehensive description of recommendations is detailed later in the report.

- **USAID and other donors in Mozambique should entrench the facilitation approach via the private sector to maintain the momentum started under programs like FTF INOVA and FTF INOVAGRO.** Direct delivery interventions, where necessary, should be targeted and short term to overcome specific market failures;
  - Almost all private sector companies interviewed during the evaluation cited the giving of free inputs or services to SHFs as one impediment to private sector development;
  - The Probe-Measure-Learn-Adapt model has been very effective at uncovering binding constraints and building private sector buy-in to invest to overcome them.
- **Follow on USAID programs should consider activities that assist agro-dealers to be “bank ready” as there are significant costs associated with developing business plans as well as going through the justification process required in lieu of collateral**
  - “As private sector we do not expect to be given money or infrastructure for free but rather prefer the development partners to coordinate with banks to lower the cost of borrowing for the private sector, for example by providing bank guarantees”<sup>9</sup>;
  - For example, Chaora commercial reported that they lost USD500 in an application process to GAPI for output buying finance which was eventually declined due to lack of collateral.
- **USAID must provide MSD programs adequate flexibility to respond to changing market circumstances.** Key implementing partner staff noted that the mechanism of “cost plus fixed fee” was ideal under FTF INOVA as it afforded the necessary flexibility required by an MSD programme:
  - For instance, K2 halved its staff complement midway through the FTF INOVA partnership resulting in the loss of field based technicians who were delivering extensions services to smallholder farmers and agro-dealers. This necessitated a change of approach by both K2 and FTF INOVA.
- **USAID program management must maintain close engagement with the implementer because of the numerous iterations on an MSD program:**
  - FTF INOVA was an adaptive project and interactive with USAID and attempted different interventions, dropping the less successful ones and carrying forward those that delivered the greatest impact. This made it impossible to set a charted course and follow it, but rather needed to be responsive to the realities in the market and areas to gain traction. The flexibility displayed by USAID on FTF INOVA was pivotal to the success of this approach.
- **Continuity of support for market system actors is crucial to help them reach the tipping point.** For example, agro-dealers supported to move to a certain level by FTF

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<sup>9</sup> Feedback from an agro-dealer in Chimoio

INOVA should be supported by subsequent programs to reach their “tipping” point beyond which they do not require external support:

- The CdA experience is a good example of where this has worked well. CdA reported that with USAID support on a programme implemented by Fintrac, they established their first 3 hubs/shops which grew to 14 without external support. Under FTF INOVA, they built on this initial progress by creating tools for the agro-dealers to increase their sales and make the network profitable.
- **USAID should consider extending the length of market systems development programs beyond 5 years.**
  - A large agribusiness noted that 20 years ago, there was no sesame seed production in Mozambique, but now the company is producing locally, but this has been a long process. In that vein, a 3 or 5 year MSD programme is too short to facilitate the required systemic changes<sup>10</sup>; and
  - In this vein, FTF INOVA portfolio managers also noted that, “short term MSD programming implies that we focus on the same established companies so that we meet our indicators within the timeframe, and not necessarily seek systemic change.”

## Introduction

DevPact is pleased to submit this final performance evaluation report to the United States Agency for International Development (USAID) in support of the agency’s efforts to monitor and evaluate program performance in Mozambique. This evaluation assesses FTF INOVA’s progress, effectiveness, efficiency, impact, and sustainability across its three focus areas of inputs distribution networks (IDN), supply chain management (SCM) and supporting services (SS) and draws lessons from the 5 year implementation period of the programme. The evaluation then provides some recommendations for consideration by USAID, implementing partners and the wider MSD network for future and current programming in Mozambique and similar contexts.

The evaluation took place both in-country (Chimoio, Maputo and Nampula) and remotely, and engaged actors across the core, supporting and regulatory functions of the Mozambican agricultural market system.

## Background

The Feed the Future Mozambique Agricultural Innovations Activity (FTF INOVA) was a five-year United States Agency for International Development (USAID) activity that began in February 2017 and is ended in June 2022. DAI Global LLC leads the implementation, supported by Technoserve, MarketShare Associates and Ecoventures.

FTF INOVA used a market systems development (MSD) approach to stimulate inclusive and sustainable, agriculture-led economic growth, as well as to increase the resilience of the agricultural sector, both of which are critical to reducing poverty and hunger in Mozambique. FTF INOVA developed strategic relationships with market actors (i.e. input distributors, seed suppliers, agro dealers, agro processors); supply chain actors (i.e. output buyers, supermarkets, aggregators, retailers) and support service providers (i.e. Universities, ICT firms, marketing companies, transport and logistic firms, community radios), to test innovative business models and new technologies. The innovations promoted by FTF INOVA sought to improve the incomes of Mozambique’s smallholder farmers (SHFs) and drive long-term, sustainable, and inclusive growth in the agriculture sector. Given that MSD

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<sup>10</sup> Discussion with Export Trading Group (ETG)

programs aim to shift the way the system works to improve the lives of those living in poverty, evaluation of MSD programs requires assessing systemic changes with appropriate methods.

It is against this background that FTF INOVA commissioned this final evaluation to understand the following:

- Review the types of activities implemented by FTF INOVA, the causal model, and suggest recommendations on how the Theory of Change (ToC) would better describe the expected pathways of change from FTF INOVA activities to the goal;
- Review the interventions and associated market system changes that the FTF INOVA introduced in the marketplace;
- Identify and assess the impact of interventions in empowering women and youth and provide opportunities for increased incomes and food systems;
- Assess the effectiveness, efficiency, and sustainability of market systems interventions implemented and its impacts on individuals, communities, and systems;
- Develop and determine which interventions had greatest impact and can be scaled up and amplified nationwide;
- Investigate the links between each stage of the ToC, for select market system changes, and gather evidence to decide whether the interventions have had the planned impact (and potential for future impact) or not at the market system, partner, and end- beneficiary levels. Consider whether the interventions are likely to have additional impact following the closure of FTF INOVA;
  - Review data already available from FTF INOVA;
  - Interview main stakeholders involved in the interventions;
- Determine the extent to which the portfolios of interventions worked in synergy towards overall shifts in the market system dynamics that has led to additional impacts, such that the FTF INOVA overall effect adds up to more than the sum of the intervention outcomes;
- Determine to what extent has FTF INOVA spurred innovations in the agriculture market systems and brought an element of novelty or transformation in modus operandi for implementation of future USAID activities; and
- Assess any unintended or negative effects, especially where different individual interventions may have impeded each other.

### Market Systems Development in a Thin Market Characterized by Direct Delivery

The nascent understanding and uptake of market system approaches in Mozambique challenged FTF INOVA's rapid takeoff. Market actors were used to receiving direct support, and with the FTF INOVA team's initial limited experience with the MSD approach, FTF INOVA's offer was disorienting. Thus, FTF INOVA:

- Established an innovative, online, and simulation-based training to rapidly orient the team to MSD;
- Invited market actors to simulations at regional workshops to build awareness of FTF INOVA's value proposition and to help potential partners understand what the project can support; and
- Introduced a new adaptive management approach founded on the notion that thin markets are inherently complex and that dealing with complexity requires a flexible, but simple-to-manage decision-making process and complexity responsive evaluation tools to allow rapid learning.<sup>11</sup>

Figure 1 below is taken from the Stocktaking Report, which was written in 2019, and shows the spectrum of activities as private sector engagement moves from nascent to engaged over time.

Stage 1 is the period when a program sets out to partner with multiple market system players that are willing to invest in business innovations of their own design with uncertain returns. This is a time intensive period—between 18 and 36 months— when a program must establish its presence with

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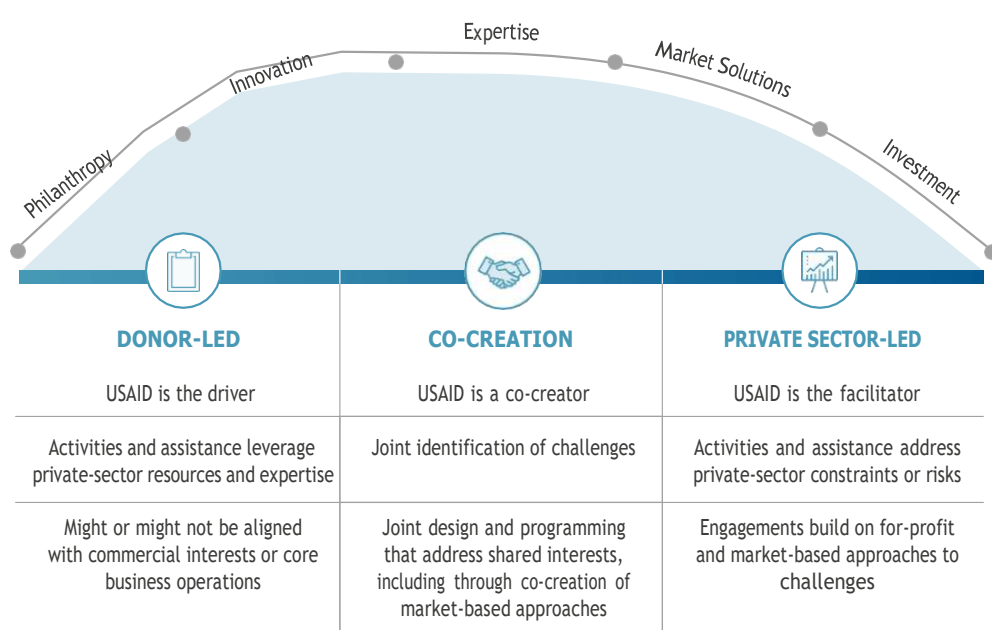
<sup>11</sup> Mozambique FTF INOVA- Year 2 Annual Report

prospective market system players (private and public organizations, associations, and civil society organizations) as a partner in innovation rather than a hands-off funder. This is especially difficult in thin markets where there is a low degree of awareness among market players that they are part of a larger system and could mutually benefit from interactions with each other.

Stage 2 is when a program leverages proven networks to reach impact at scale, sustainably. Scale must be defined from the outset in order to gauge Stage 1 positioning toward reaching scale and then Stage 2 progress toward achieving scale. This Stage 2 measurement will occur when FTF INOVA has matured to the point when it is engaged with fewer, stronger networks that are able to leverage sustained pro-poor market outcomes.<sup>12</sup>

This evaluation predominantly assesses Stage 2 outcomes.

Figure 2 Spectrum of Types of Private Sector Engagement<sup>13</sup>



## FTF INOVA's Strategy

In line with USAID's Journey to Self-Reliance and the Private Sector Engagement policy, FTF INOVA worked with market actors, such as businesses and public sector institutions, **to facilitate systemic change**, in addition to helping them adopt new ways of doing business and delivering services. This meant that FTF INOVA worked to find ways of enabling market actors to better perform their functions within the agricultural market system and to introduce necessary supporting services that were not present in the sector. Simultaneously, FTF INOVA engage the traditionally marginalized (especially smallholders, youth, and women) in beneficial ways to enable their participation in viable input and output supply chains. This facilitative and inclusive strategy to development challenges is known as a Market Systems Development (MSD) approach.

FTF INOVA activities were organized by the three portfolios below.

<sup>12</sup> Stocktaking Report on FTF INOVA, 2019. M. Bear

<sup>13</sup> This graphic is taken from USAID's Private-Sector Engagement Policy.

- **Input Distribution Network (IDN):** FTF INOVA engaged with input supply manufacturers, distributors, and retailers to improve delivery of agricultural input products and services, tailored to the needs of SHFs;
- **Supply Chain Management (SCM):** FTF INOVA engaged with output buyers (like international exporters of agricultural produce and products) and domestic retailers (like supermarkets) to strengthen the quality and quantity of agricultural produce through relationships with SHFs and service providers; and
- **Support Service Systems (SSS):** FTF INOVA engaged with supporting actors (i.e., marketing firms; universities; logistics, information, and communication technology (ICT) firms; financial institutions; etc.) to develop options for delivering services to the agricultural sector.

### Initial Value Chain Focus and Transition to MSD

As highlighted in the MTR, as part of FTF INOVA's inception phase, eight FTF value chains (pigeon pea, common bean, soybean, bananas, sesame, cashew, groundnut, and cowpea) were assessed building on initial findings and recommendations from a previous USAID global Leveraging Economic Opportunities agricultural value chain analysis in Mozambique. FTF INOVA's value chain selection was based on three criteria: competitiveness, development impact (including scalability), and feasibility to generate impact within three to five years. The value chain analysis's primary objective was to generate a strategy for interventions that would yield short-term results, test critical assumptions about evolving market system dynamics through direct engagement with market actors and allow longer-term strategy development. The 2017 analysis supported the development of FTF INOVA's Year 1 work plan with cashew, sesame, groundnut, and pigeon pea being selected as priority value chains for Year 1. FTF INOVA also produced five strategy summaries for cashew, groundnuts, pigeon pea, and sesame in Year 1.<sup>14</sup>

By 2018 FTF INOVA had recognised that taking a value chain approach would not yield the required systemic results that they sought to achieve and therefore transitioned to a broader market system approach. In its 2018 baseline report, FTF INOVA reported that it “**takes a market systems approach to increase equitable growth of the Mozambican agriculture sector by catalyzing continual strengthening of relationships and linkages between market actors throughout the agricultural market system**” and that it “takes a portfolio approach to market systems development.” In its 2019 annual work plan, FTF INOVA detailed its use of the more holistic Market System Change Wheel<sup>15</sup> as the starting point for developing support to agricultural market systems. The Market Systems Change Wheel allowed the activity to take a much broader and flexible approach than when focusing on the eight value chains.<sup>16</sup>

The MTR also stated that USAID representatives reported that this adaptation was made because markets were limited, and the added flexibility would likely increase the range of FTF INOVA's investment opportunities. Another reason for the activity's adaptation reported by some USAID staff members was the perceived need to try new approaches after investing for 15 to 20 years in Mozambican agriculture in the same way and still facing the same challenges. USAID representatives also reported that they wanted FTF INOVA to be innovative and groundbreaking.<sup>17</sup>

### Probing Approach

FTF INOVA sought to introduce innovations that would disrupt the agricultural market system dynamics to improve the competitiveness of agribusinesses and the cooperation and trust amongst market actors, to ultimately benefit SHFs. To that end, FTF INOVA prioritized identifying market

<sup>14</sup> FTF INOVA Mid Term Program Evaluation, 2019.

<sup>15</sup> <https://www.msdkhub.org/agricultural-market-system-change-wheel.html>

<sup>16</sup> FTF INOVA Mid Term Program Evaluation, 2019

<sup>17</sup> ibid

actors who expressed interest and commitment in exploring innovations that could prove successful in sustainably generating profits for the private sector, benefitting SHFs, and ultimately having significant changes in market system dynamics. To navigate these complex change pathways, FTF INOVA developed a sense-making technique known as probing.

FTF INOVA defined probing as a rapid and flexible way to explore possible pathways to improving market system performance.

Specifically, a probe is comprised of three elements:

- The 'What': a potentially catalytic innovation, such as a new product, service, or business practice adopted by a market actor;
- The 'How': the co-creation process of how FTF INOVA defines and adapts the innovation together with the partner market actor; and
- The 'Why': the learning objective attached to the innovation, geared towards measuring sustainability over the long-term, the value delivered to SHFs, and potential to scale in the market.

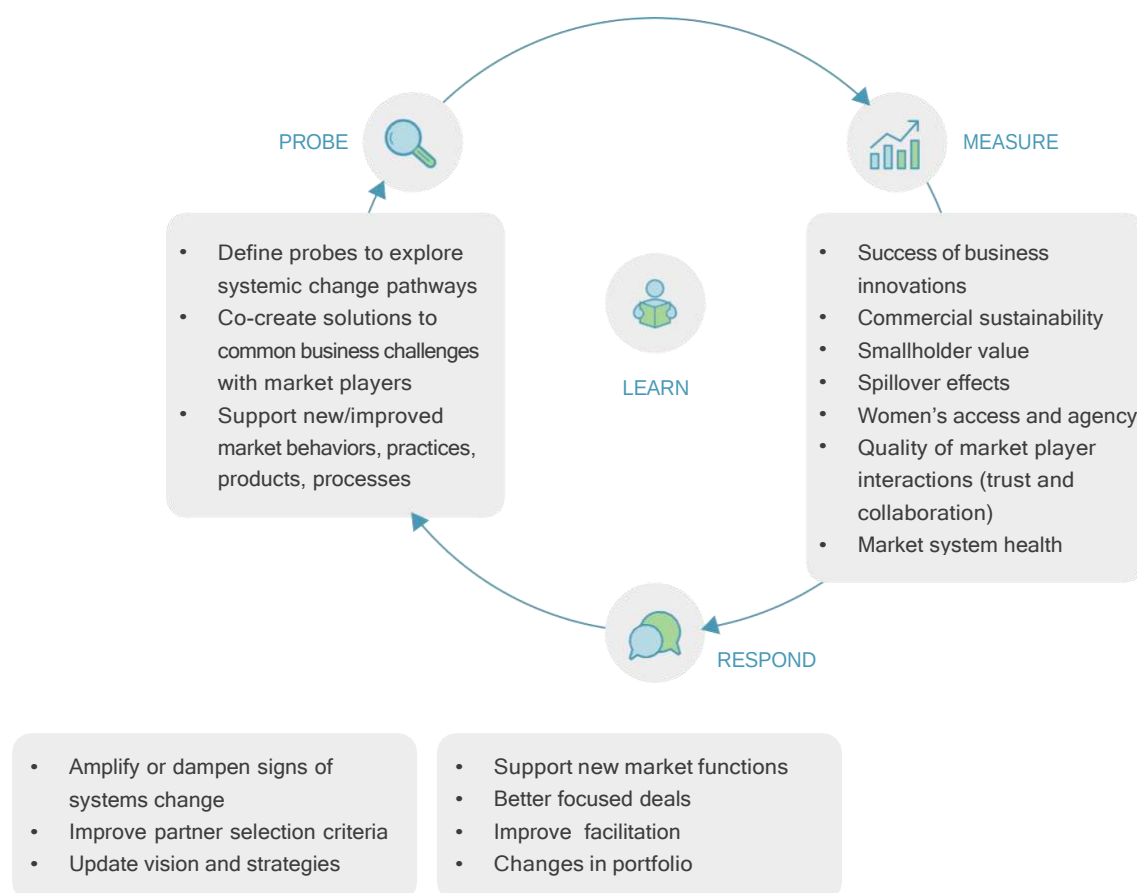
Probes were the building blocks of FTF INOVA's strategic thinking. They were based on the experience and knowledge acquired by the project and its partners, helping the program build its vision of how to nudge the market system towards higher degrees of inclusivity and competitiveness, while leveraging the interests expressed by the partner to find solutions to business challenges. As compared to rigid intervention plans, codified in the form of results chains, probes are a more flexible and rapid way to test and adjust the innovations the project facilitates. Probes may take a few days or a few months, may involve one partner or multiple partners, and one partner may probe one innovation or multiple innovations. Probes provided FTF INOVA a way to engage in structured but iterative learning and respond rapidly by either identifying the best way to optimize an innovation or by pivoting the strategy towards an alternative pathway that led to systemic change. Probes were defined during the annual portfolio review and updated/added on a quarterly basis.<sup>18</sup>

The diagram below summarizes FTF INOVA's probing methodology to intervention design and systemic change facilitation.

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<sup>18</sup> FTF INOVA Annual Workplan, 2019

Figure 3 Probe, Measure, Adapt & Respond<sup>19</sup>



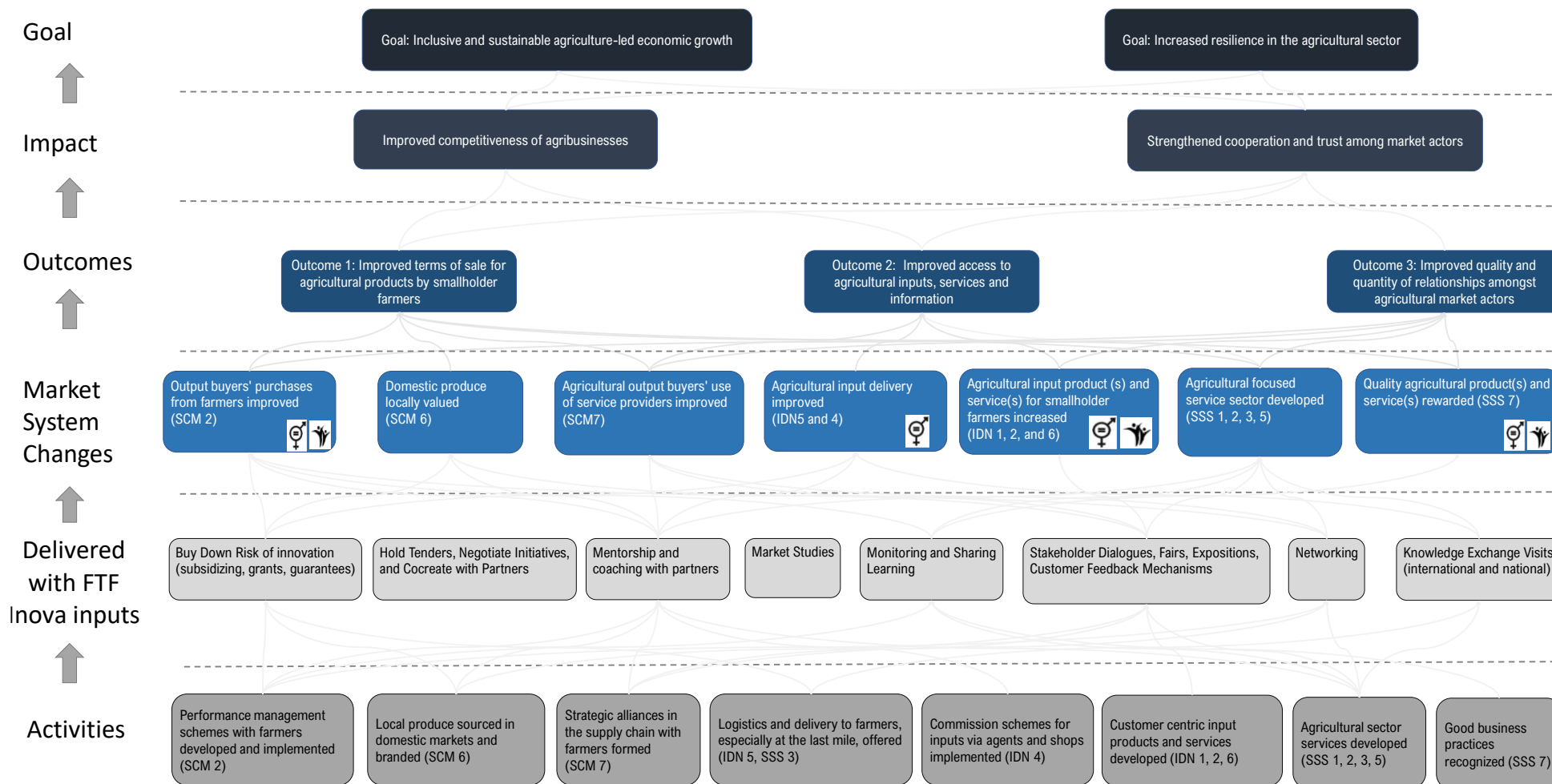
## FTF INOVA Theory of Change

The use of the MSD approach meant that predicting change along a linear path was not possible at baseline in 2017, and the monitoring system needed to remain flexible to accommodate and detect unpredicted outcomes that signal market system change. Therefore, up to the MTR in 2019, FTF INOVA maintained an iterative approach reflecting the dynamic relationship between interventions and the programme's vision for systems change.<sup>20</sup> As expected, the MTR noted that FTF INOVA had not used a theory of change or results chains to plan, monitor, or describe its approach. It further noted that using lessons from implementation, the programme could better clarify market causality and present a theory of change. FTF INOVA took this recommendation on board and developed the detailed theory of change below. FTF INOVA's TOC is aligned to the MSD approach, emphasizing market system changes rather than outputs and intermediate outcomes.

<sup>19</sup> Extracted and adapted from Stocktaking Report on FTF INOVA, 2019. M. Bear

<sup>20</sup> FTF INOVA Baseline Report, 2018.

Figure 4 FTF INOVA Theory of Change



## Final Evaluation Background

### Purpose and Use of the Evaluation

The purpose of this final evaluation of the FTF INOVA program is to contribute to MSD learning within USAID and Mozambique by conducting a theory-based evaluation to investigate what mechanisms of change FTF INOVA and its partners facilitated, as well as how and why they worked (or did not). The goals of this evaluation were to determine the relevance and level of achievement of project objectives, understand what worked, why and how, to inform new USAID MSD activities in Mozambique like RESINA and PREMIER and to share learning with other stakeholders, including donors and the Mozambique government to influence decision-making processes.

The primary recipient of this final evaluation report is USAID Mozambique and the FTF INOVA implementing consortium partners (DAI, Technoserve, MSA, and Ecoventures). As noted in the stocktaking report the evaluation specifically targets “USAID practitioners who work with the private sector and are tasked with implementing USAID’s new Private Sector Engagement Policy. FTF INOVA’s experience, as it evolves over the project’s five-year lifespan, could offer valuable lessons on how to formulate and implement a private-sector engagement strategy.”<sup>21</sup>

Secondary recipients of the evaluation include other MSD donors and programs in Mozambique and the wider MSD community globally. Specific evaluation questions are listed below.

### Key Evaluation Questions

Specifically, the evaluation sought to:

- Review the types of activities implemented by FTF INOVA, the causal model, and suggest recommendations on how the Theory of Change (ToC) would have better described the expected pathways of change from FTF INOVA activities to the goal;
- Review the interventions and associated market system changes that the FTF INOVA introduced in the marketplace;
- Identify and assess the impact of interventions in empowering women and youth and provide opportunities for increased incomes and food systems;
- Assess the effectiveness, efficiency, and sustainability of market systems interventions implemented and its impacts on individuals, communities, and systems;
- Develop and determine which interventions had greatest impact and can be scaled up and amplified nationwide;
- Investigate the links between each stage of the ToC, for select market system changes, and gather evidence to decide whether the interventions have had the planned impact or not at the market system, partner, and end beneficiary levels. Consider whether the interventions are likely to have additional impact following the closure of FTF INOVA;
- Determine the extent to which the portfolios of interventions worked in synergy towards overall shifts in the market system dynamics that has led to additional impacts, such that the FTF INOVA overall effect adds up to more than the sum of the intervention outcomes;
- Determine to what extent FTF INOVA spurred innovations in the agriculture market systems and brought an element of novelty or transformation in modus operandi for implementation of future USAID activities; and

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<sup>21</sup> Stocktaking Report on FTF INOVA: Progress in Achieving Impact at Scale. M. Bear, 2019.

- Assess any unintended or negative effects, especially where different individual interventions may have impeded each other

The findings section of this report is structured to respond to each of the specific questions above.

## Scope and Methodology

The evaluation covered the whole period of FTF INOVA, from 2017 to 2022. However, the evaluation borrowed significantly from the mid-term review (conducted in 2019) for the period 2017 to 2019 and then evaluated in detail the period between 2019 and 2022. Whilst there was more focus on the period after the mid-term review and the end of the programme, the evaluation briefly took stock of FTF INOVA approaches and interventions from program inception in 2017 to the end of the program in 2022.

Geographically, the evaluation focused on three regions:

- Maputo- engagements with private sector agribusinesses, financial institutions, USAID and implementing partners;
- Chimoio- engagement with agro-dealers, VBAs, implementing partners and farmers; and
- Nampula- engagements with agro-dealers, VBAs, implementing partners

### Use of a Theory-based evaluation approach

Evaluations such as this one face two broad challenges: measuring the expected results from an intervention and attributing those results to the activities of the intervention.<sup>22</sup> Experimental evaluation designs seek to address both challenges and they typically measure both the baseline and the final results associated with an intervention and, by incorporating a counterfactual can assess the causal link between the intervention and the observed results. Whilst they are powerful, experimental designs have significant shortcomings in assessing MSD type programs. Key amongst these challenges is the practicality of implementing experimental evaluations. In many contexts, experimental designs cannot be implemented because the development of a counterfactual may be difficult or undesirable (e.g., for ethical reasons). In some cases, there may not be an opportunity to manipulate the delivery of the intervention as required in order to demonstrate attribution. In other cases, the resources or time required to undertake experimental designs may not be available. Secondly, and more importantly for MSD programs, experimental designs, even when feasible, are not aimed at understanding why and how the observed results occurred. These designs do not attempt to answer questions such as the following: “What was it about the intervention or the context that caused the results? Where the expected results were not observed, what was it about the intervention that didn’t work? Theory-based evaluation approaches then come into play to answer these questions. In the absence of an overall experimental design, theory-based evaluations provide a way to assess the extent to which an intervention has produced or influenced observed results. Theory-based approaches to evaluation use an explicit **theory of change** to draw conclusions about whether and how an intervention contributed to observed results. Theory-based approaches are a “logic of enquiry” and not a specific method or technique. It is a way of structuring and undertaking analysis in an evaluation.<sup>23</sup>

Given the foregoing, this evaluation used a theory-based evaluation approach, based on FTF INOVA’s theory of change. To that end, information was collected using three methods: a review

<sup>22</sup> Contribution is the idea that your influence is only one of many factors that contributed to a change, while attribution is the idea that your intervention was the only reason for the change.

<sup>23</sup> <https://www.canada.ca/en/treasury-board-secretariat/services/audit-evaluation/evaluation-government-canada/theory-based-approaches-evaluation-concepts-practices.html>

of the project documents, deal notes, MoUs and MRM data, remote stakeholder engagements and face to face semi-structured interviews in Chimoio, Maputo and Nampula.

### Secondary Data Review

The following documents and information sources were reviewed as part of secondary data analysis:

- FTF INOVA program documents including:
  - Baseline reports
  - Annual workplans
  - Annual reports
  - Stocktaking reports
  - Case studies
- Online videos and documentaries published by FTF INOVA as part of knowledge and learning<sup>24</sup>;
- MEL plans; and
- Performance indicator sheets.

This documentation and data provided critical information for the evaluation, particularly on progress and effectiveness. Quantitative results are based on FTF INOVA's data.

### In Country Stakeholder Consultations

For this evaluation, semi-structured interviews were used to encourage stakeholders to share experiences and perceptions in greater detail than a strict survey would allow. Given the flexibility and nuances inherent in an MSD implementation approach, an equally flexible evaluation approach was required to tease out these nuances hence the use of loosely semi-structured interviews to facilitate discussions. The evaluation did use interview guides to ensure that relevant topics were covered, but most of the interviews evolved into conversations with the stakeholders, and this enriched the information gathered.

Most interviews were conducted face to face in Chimoio, Maputo and Nampula, with a few online interviews. A total of 35 stakeholder engagements were conducted across 29 stakeholders (see Annexure 4). The fieldwork for this evaluation was conducted between March 28<sup>th</sup> and April 8<sup>th</sup>, 2022, with follow up online stakeholder consultations taking place until May 30<sup>th</sup>.

### Limitations and Bias

Participation in stakeholder engagements was voluntary on the part of implementing partners and stakeholders were identified by FTF INOVA staff to capture relevant insights and perspectives that could answer the evaluation questions outlined above. Therefore, some bias could have been introduced in the evaluation by the fact that the list of people to interview was largely developed by the FTF INOVA team.

Secondly, the fieldwork period in Mozambique was essentially conducted over an 8-day period (there was a public holiday during the in country stakeholder engagements in Nampula). This period was not long enough to meet stakeholders for a program with such broad objectives and diverse activities.

Inevitably, the evaluation was limited by these constraints.

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<sup>24</sup> <https://www.youtube.com/watch?v=L4tSJldOmfl>

## Use of Relevant OECD Development Assistance Committee (DAC) Criteria

To conduct a “systemic” evaluation, the evaluation used OECD’s DAC evaluation criteria to assess 4 areas highlighted in the terms of reference, namely the **effectiveness, efficiency, sustainability, and impact** of FTF INOVA’s market system interventions. These criteria are further described below.

**Effectiveness** is the extent to which the interventions achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. Determining whether the planned results were achieved, the processes involved, the deciding factors and identifying any positive and negative unintended consequences is essential when measuring an intervention’s effectiveness. This allows the evaluator to determine whether any shortcomings are the results of the intervention’s design or implementation.

**Efficiency** is the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. Under this criteria focus is on whether the resources used to implement the intervention in a particular context can be justified by the results produced.

**Impact** is the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. Some considerations when determining the impact of an intervention include assessing the changes resulting from the interventions and identifying the affected beneficiaries and stakeholders; whether the change created is valuable to the beneficiaries; whether the changes transformed norms and systems; and whether they are scalable.

**Sustainability** is the extent to which the net benefits of the intervention continue or are likely to continue. It is measured in the financial, economic, social, and environmental domains and is dependent on the project building the capacity of the stakeholders and beneficiaries to sustain net benefits after the project ends. An intervention is considered to be sustainable if it is resilient and adaptable in a changing and complex environment.<sup>25</sup>

## Key Mid Term Review (MTR) Findings

The final evaluation took place in the context of key recommendations from the MTR, some of which were accepted and addressed by the FTF INOVA team and others there was no agreement between the MTR team and the FTF INOVA team. The key recommendations are revisited here to give context. The remedial actions taken by FTF INOVA to address them are discussed later in the report in the Findings section.

**FTF INOVA should continue with plans to focus on input and support market systems and develop a theory of change.** FTF INOVA should continue with plans to focus on farm inputs and support service sectors. It should develop an overall theory of change and individual results chains for focal areas to clarify intended activities, outputs, and outcomes. The theory of change should be linked to indicators that show progress, especially at outcome level.

**FTF INOVA should further develop its interest in output markets.** FTF INOVA should provide more information on its work in output markets in its regular reports showing how they will contribute to scale. This should include information on the commodities or products involved, who the buyers are in which output markets, estimates of sales and market size in volume and value terms, trends in growth, forecasts of growth and an analysis of margins and investment returns for the partners it supports. This should be monitored to show investment returns.

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<sup>25</sup> <https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm>

**FTF INOVA should review its communication strategy.** FTF INOVA should review its external communication strategy and produce materials that communicate more effectively with external non-specialists—for example, with an infographic approach that avoids use of technical language and communicates clearly with non-MSD practitioners (e.g., government, donors, NGOs, and private sector partners).

**To support future intervention design, FTF INOVA should reflect and report on the implications of its partner selection process, its support to finance, and its levels of investment in output market opportunities.** The FTF INOVA end-of-program report should reflect on the positive and negative implications of its partner selection process. This reflection should consider whether small and medium-size enterprises with good ideas but insufficient resources to contribute to partnerships were excluded and whether large-scale opportunities were missed due to the approach. The FTF INOVA report should also consider why the activity has evolved to focus on input and support markets and explore the value of an initial broad-based market assessment to identify output market opportunities. The report should also explore why support to address finance constraints and output market opportunities did not evolve to the same extent as farm input-related support, consider the implications of this, and provide recommendations for future MSD activity design.

**FTF INOVA should strengthen its linkage to government.** To help ensure consistency with local government policy, FTF INOVA staff should visit provincial-level government to inform them of their activities. At a national level, FTF INOVA leadership should review and potentially develop a closer working relationship with GoM/MADER, USAID and SPEED+ (or similar activities) to improve activity performance. FTF INOVA support to local food production needs to be consistent with cross-border trade policy, particularly in the COVID-19 context.

**FTF INOVA should improve the use of consortium strengths.** FTF INOVA should review the use of consortium partner strengths and needs to reset the relationship between DAI and Technoserve. Monitoring and evaluation data and progress reports should be shared with Technoserve. Technoserve country-level senior staff members should be meaningfully involved in FTF INOVA strategy review processes. All partners should be involved in developing learning to inform the MSD debate on best practice.

**FTF INOVA should review and potentially enhance its contribution to national-level learning about economic development.** National-level economic development practitioners report interest in FTF INOVA and call for an increased contribution to national-level learning. The activity should explore ways, with partners, to enhance its contribution to the Mozambique MSD practitioners' group and other economic development forums to share learning and inform others working in a similar field.

**FTF INOVA should review and strengthen its gender strategy.** FTF INOVA should uniformly apply its mainstreamed gender strategy across its portfolio. The MEL team should monitor this and ensure that managers are appropriately discussing gender with partners. The activity should also review its 2017 gender action plan and revisit its gender norms mapping exercise to recommend pilot entry points for women in specific markets and develop clear, targeted gender interventions.

**FTF INOVA should inform others on additional COVID-19 adaptations in national-level communication and finance.** FTF INOVA should be “on the agricultural business pulse” and inform others on what they should do and where they should go to support the response to COVID-19. This effort needs to go beyond USAID resources. The FTF INOVA leadership should inform and engage broad agricultural stakeholders and practitioners, including key financial actors such as the World Bank and African Development Bank. Communication should also inform government on shifting markets and changes to cross-border trade to support scenario planning and adjustments to transport

restrictions. Agricultural businesses will require rapid access to finance to meet working capital requirements. FTF INOVA can help by using DAI and Technoserve connections with businesses and financial institutions. FTF INOVA and partners should analyze constraints, needs, and potential finance sources and methods and then rapidly design and provide appropriate support.

## Findings

This section on findings is written to respond to the specific evaluation questions highlighted earlier as well as to respond to the DAC criteria of **effectiveness, efficiency, impact, and sustainability** as emphasized in the terms of reference for this evaluation.

### Activity Review and Associated Market Systems Changes Introduced

With Mozambique changing from a focus country to an aligned country within the Feed the Future initiative in 2018 and with more focus on systems in the Global Food Security Strategy, FTF INOVA was able to fully embrace the market systems development approach and find a critical mass of committed partners to build a robust portfolio and identify good strategic leverage points for transformational and sustainable market system change.<sup>26</sup>

#### Input Distribution Network System (IDN)

FTF INOVA engaged with input supply manufacturers, distributors, and retailers to improve delivery of agricultural products and services tailored to the needs of smallholder farmers. FTF INOVA probed:

- Use of **pull distribution systems**<sup>27</sup> to improve the timeliness of product delivery to add value and dependability and build customer loyalty;
- Use of **customer-oriented pricing strategies** (i.e., commission schemes or price lists) to provide inputs at a fair and transparent price;
- **Human-centered design** to improve customer experiences at retail locations (leverage non-traditional sales channels to improve distribution presence); and
- **Design and delivery of customer-centric products and services** to improve the value-proposition for farmers and generate more demand from customers

These probes were tested through experiments with different partners with distinct roles in the supply chain, e.g. seed companies, distributors, and input retailers covered by 13 Market Actor Partner Agreements (MAPA) and 18 deal notes throughout the five years of the project.<sup>28</sup>

The two market system changes facilitated by activities with partners and other actors were:

- Improved agricultural input delivery; and
- Increased agricultural input product(s) and service(s) for SHF

Significant progress towards these changes were evidenced by input suppliers adapting their business strategies to be more customer-oriented and investing in delivering increased volumes of inputs, especially at the last mile with remote farmers. These changes gained traction as SHF realized they could increase their incomes through increased productivity on the back of improved input purchases.<sup>29</sup>

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<sup>26</sup> Mozambique FTF INOVA Year 2 Annual Report

<sup>27</sup> A pull distribution system is a delivery infrastructure that connects manufacturers, distributors, and retailers to bring volumes of inputs all the way down to SHFs in a cost-effective and efficient way, thereby shifting the financial burden of stocking from retailers to wholesalers.

<sup>28</sup> FTF INOVA Final Report, 2017-2022

<sup>29</sup> Mozambique FTF INOVA Annual Report, 2020-21

For the IDN, FTF INOVA hypothesized that “if input supply firms change their business strategies to be more customer-oriented (especially with farmers) and invest in delivering more value for their customers, then farmer customer value will lead to increased sales and become a central driver of firm performance, leading to competitive pressure on other input firms to adopt similar strategies.”<sup>30</sup>

According to the FTF INOVA team, the input distribution network system is the portfolio that had the most traction and facilitated the most systemic change over the life of the programme. The evaluation concurred with this view based on the feedback from the stakeholders, especially the private sector partners. That said, traction in the supporting services function could prove to be the most impactful in the long term with the crowding in of ancillary service providers that were previously not engaging with the agricultural sector. This was in part due to the fact the inputs market system was already better developed in comparison to output marketing and support services. In addition, private sector partners instituted more far-reaching business model changes to facilitate the uptake of greater volumes of inputs, seed in particular, to increase their revenues and profit.

*“After FTF INOVA closed down, we continued with same model that was started with their support because it looks profitable, and we will continue.”*

**Rui Brandao, Casa do Agricultor** (in reference to the online product catalogue and Rota Certa intervention supported by FTF INOVA).

Private sector partners engaged during the evaluation (Casa do Agricultor and K2 for example) echoed the same sentiments, indicating that the interventions started with FTF INOVA support were proving to be profitable and sustainable. The thinness of the Mozambican agricultural market system was mentioned by the private sector, noting that their businesses relied heavily on government and donor/NGO tenders, which was not sustainable in the long term as neither are “permanent market actors” in the demand and supply core function equation. This strengthened the business case for model adaptation to deal with smallholder farmers. Challenges persist with non-payment by agro-dealers for advance input supplies, as well as payment between seed suppliers and some larger agro-dealers. This has negatively affected operations in some instances.<sup>31</sup>

## Summary Case Studies

### Casa do Agricultor (CdA)<sup>32</sup>

CdA is a large distributor present in all provinces and is connected to more than 100 medium and small scale agro-dealers serving South, Central and Northern Mozambique. The major inputs distributed by CdA include seeds, fertilizer, veterinary medicines, and farm implements. They also distribute tractors, day old chicks, crop protection products (CPPs) and fishing nets.

### The challenge

Rural producers, especially smallholder farmers, face significant challenges in accessing high quality and/or improved inputs. This results in low productivity and low quality of production. Reasons for this include the fact that inputs shops are in towns far from the farms and imply costs of travelling, with farmers sometimes travelling more than 100km to the nearest inputs retailer. This means that there are no stocks of improved inputs at the last mile to use timely.

### The intervention

<sup>30</sup> FTF INOVA Annual Workplan, 2019

<sup>31</sup> Discussion with a large seed supplier highlighting the risk on non-payment by some agro-dealers for seed advanced on credit which caused them to withdraw from some partnership. The issue of trust remains a major challenge

<sup>32</sup> Data for case study compilation sourced from FTF INOVA and Casa do Agricultor

FTF INOVA worked in partnership with CdA to support its vision of expanding their customer base, increasing volume of sales and increase value of sales. To achieve this, **FTF INOVA supported CdA to establish a regular and pre order inputs distribution model called Rota Certa**<sup>33</sup>. FTF INOVA support was through technical assistance provision, transport costs subsidy during the probe period and a profitability data analysis to determine which routes were most viable and which were not.

### Systemic Results and Impact

CdA has now adopted the pre-order system to enhance proximity to customers through periodic phone calls to some agro-dealers. CdA now conducts regular inputs distribution to smallholder farmers far from urban centres through the Rota Certa model. Finally, CdA now uses a mini catalogue which helps agro-dealers organize their customers' orders. Agro-dealers have a hard copy of the catalogue and farmers can select the inputs they require from there and then the agro-dealer places the order with CdA for delivery on a specific day when that route is serviced. Alternatively, if farmers access the online shop via a smartphone or laptop (agro-dealer or extension officer), they can order through whichever agro-dealer they want to receive from, and the agro-dealer receives a commission.

The intervention resulted in the following impacts:

- Agro-dealer and farmer transport costs have reduced significantly because they can now access inputs “within the last mile” i.e. closer to their businesses premises/homesteads
- Farmers are now using better quality inputs which are accessible from the agro-dealers through the linkage with CdA;
- Agro-dealers stock holdings have now been rationalized to align with demand, so they do not have to hold large amounts of unnecessary stock, tying up working capital, because there are now regular deliveries from CdA; and
- Trust between farmers, agro-dealers and CdA has increased through use of the catalogues and regular communication. Farmers no longer travel long distances only to be told that their desired product is not in stock. They can pre-order and know that on a particular day their inputs will be available

### Klein Karoo (K2)<sup>34</sup>

Klein Karoo (K2) is an input manufacturer headquartered in South Africa with operations in Mozambique. K2 specializes in the manufacturing and distribution of seed for horticultural crops, cereals, and oil seeds. K2's customers include agro-dealers, village based agents (VBAs) and smallholder farmers.

### The challenge

Like the CdA case described above, last mile expansion was also a challenge in K2's business model, meaning that farmers were far away from accessing the distributor's products. This was a problem for both the distributor (low sales volume) and the farmers (low quality inputs and input unavailability). In addition, customer focused service and inventory management were not emphasized by the business so intimate customer knowledge was limited, meaning that service was not tailored to customer retention. In addition, agro-dealers invested working capital on holding stock that was not informed by demand data, leading to sub optimal shelf life of products and expired products. Crucially, feedback mechanisms and communication channels between the smallholder farmers and K2 were limited to non-existent in some cases. FTF INOVA and K2 saw an opportunity to address these constraints and improve sustained profitability of input manufacturers and their agro-dealers partners.

### The intervention

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<sup>33</sup> Rota Certa is a system which works through 17 delivery routes, via which CdA delivers inputs to 170 agro-dealers who sell these products to approximately 17,000 small producers/month

<sup>34</sup> Data for case study compilation sourced from FTF INOVA and Klein Karoo (K2)

FTF INOVA worked in partnership with K2 to support its vision of improving and expanding the delivery of inputs to the last mile by servicing the needs and preferences of smallholder farmers through a pre-ordering system managed by agro-dealers and their VBAs. To achieve this, FTF INOVA **co-invested with K2 to establish a pre-ordering system via the VBA micro distribution model**. FTF INOVA support was through technical assistance provision to better plan and execute roadshows (attendance registers and contact details now required), training of agro-dealers and VBAs, facilitating agro-dealer attendance at K2 seed fairs (in the past it was a K2 only affair), provision of farmer level cashflow cycles to enable K2 to plan seed fairs at the appropriate time and introduction of the seed distributor of the year award (where K2 placed second). Most importantly, FTF INOVA sponsored university interns to assist in piloting the pre-order distribution model via VBAs.

### **Systemic Results and Impact**

K2 has now internalized the model to supported agro-dealers to strengthen their use of VBAs. K2 noted that most of their partner agro-dealer had increased their partner VBAs from two to six because of the FTF INOVA intervention<sup>35</sup>. K2 is also now using a pull distribution model to introduce a seed pre-ordering system for agro-dealers and smallholder farmers. Lastly, K2 has introduced performance based indicators to evaluate partner agro-dealers. K2 also highlighted that they had developed a calendar with technical information such as planting dates and varieties to assist their agro-dealer partners and smallholder farmers with technical information about the seed they purchase. For communication, K2 created a WhatsApp group with agro-dealers which is now almost three years in existence, showing that this is a sustainable model for feedback. In addition to this channel of communication, K2 also participates in radio programs to gauge farmer satisfaction via a call in line.

The “green line” which had been introduced with FTF INOVA support where farmers could call in even without airtime has unfortunately been discontinued as K2 cannot afford the flat monthly payment which enabled the functioning of this free line for farmers.

The intervention resulted in the following impacts:

- Increased last mile market presence with smallholder farmers means that agro-dealers use this model to serve rural or remote smallholder farmers more effectively and therefore increase their sales volumes, leading to income increase;
- Increased communication with smallholder farmers (information sharing and feedback capture) led to improved product/services and higher satisfaction and demand from smallholder farmers;
- Diversification of sales channel from the traditional government/NGO tender route to the VBA channel which now accounts for 55% of seed sales; and
- Agro-dealers that participated in the FTF INOVA training in Barue and Machipanda are performing much better than those that did not attend the training, especially in contract compliance/loan repayment.

The table below is adapted from the 2019 Stocktaking report and summarises IDN partner progress since the mid-term evaluation.

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<sup>35</sup> Discussion with K2 Senior Manager in Chimoio

Table 1 IDN Partner Progress in Reaching Scale<sup>36</sup>

| Innovation                            | Partner     | Positioning for Scale                                                                                                              | Achievement                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| One Stop Shop model                   | CdA         | Expanding model to more qualified users<br><br>Adapting model to create a better shopping experience for small holder farmers      | Rota Certa trucking routes increased CdA's distribution capacity through regular deliveries along 17 routes to reach almost 200 rural agro-dealers that serve about 15,000 SHFs                                                                                                                                             |
| Embed Spray Service in Chemical Sales | Isolmoc     | Expanding (using different channels) to early adopters across different crops /locations<br><br>Adapting model for different crops | Isolmoc did not generate the desirable results because farmers did not achieve high yields and failed to repay the input credit to Olam, and therefore could not pay in full the inputs supplied by Isolmoc for the pilot. This was due in part to unclear risk sharing for piloting an innovation between Olam and Isolmoc |
| Last Mile Distribution (VBA)          | Klein Karoo | Adopting village-based agents as a viable distribution/sales channel to reach small holder farmers                                 | K2 developed its own scorecard which tracked and rewarded retailers for being more customer centric, e.g. providing technical information on products, facilitating logistics, capturing, and sharing feedback on products and experiences, and overall satisfaction with products. This resulted in increased sales        |

### Theory of Change Linkages

As outlined in FTF INOVA's theory of change, activities envisaged under the IDN market system were:

- Logistics and delivery to farmers, especially at last mile;
- Commission schemes for inputs via agents and shops; and
- Customer centric input products and services.

FTF INOVA managed to implement all the activities envisaged and the private sector actors interviewed during the evaluation were especially satisfied with the momentum on supporting services which they felt was a missing link in the Mozambican agricultural sector.<sup>37</sup>

The market systems changes envisaged were:

- Agricultural input delivery improved; and
- Agricultural input products and services for SHF increased.

As highlighted in the textbox below, evidence from the work with CdA and Adicional (Rota Certa); K2's agro-dealer/VBA model and Oruwera's work with agents and VBAs shows that FTF INOVA facilitated appreciable progress towards market system changes through its interventions. It was not clear at this stage if replication or copying by other private sector actors was taking place, but FTF INOVA partners were expanding FTF INOVA supported models without FTF INOVA support.

<sup>36</sup> Adapted from Stocktaking Report on FTF Mozambique: Progress in Achieving Impact at Scale. M. Bear, 2019

<sup>37</sup> Discussions with Appload, CdA and Winnua, April 2022

*CdA used its Rota Certa trucking routes which increased its distribution capacity through regular deliveries along 17 routes to reach about 170 rural agro-dealer serving on average 15 000 SHFs per month. Bayer decided to develop their own regional distribution by upgrading 13 agro-dealers to hub dealers working with 130 agro-dealers connecting 190 associations with their hub dealers, serving about 17 000 SHF. K2 invested in 15 retail points, to support them to develop a pre-ordering system via a network of agents. Input firms like Oruwera, working with community agents and VBAs focused on the smallholder farmer as a key market segment (rather than focusing on and marketing primarily towards government or NGO purchases), serving 3 725 farmers with improved inputs. The customer-centric design piloted with ECA and NovaTech reached 517 SHF in Year 5 and expects to serve a minimum of 2 000 farmers in the region of Catandica because of the input shops opening.*

## Supply Chain Management (SCM)

FTF INOVA engaged with the full range of buyers - from international agriculture product exporters to domestic retailers/supermarkets - to strengthen the quality and quantity of available produce through relationships with smallholder farmers and the firms that supplied them inputs or provided services to SHFs. FTF INOVA probed:

- **Transparent performance management mechanisms** with supplier clubs to increase farmer quality production and loyalty, reducing side-selling;
- **Certification and quality standards** to enable upgrading and higher value domestic and international market access;
- **Targeted branding and sourcing** of minimum quality standard in domestic markets to increase market access and satisfy latent demand;
- **Strategic alliances** to build the supply chain especially **between off-takers (buyers) and service providers** (input suppliers, finance, etc.) oriented towards farmers; and
- Facilitate **market access** for producers and improve quality of produce in urban areas through linkages in transport.

These probes were tested through experiments with different partners with distinct roles in the supply chain, e.g. large exporters, wholesalers, domestic retailers, and aggregators covered by 10 Market Actor Partner Agreements (MAPAs) and 12 Deal Notes throughout the five years of the project.<sup>38</sup>

The three market system changes facilitated by activities with partners and other actors are:

- Improved purchasing by output buyers from SHF;
- Increased value placed locally on domestic produce commodities; and
- Improved use of service providers by output buyers.

These changes were evidenced by output buyers investing in sourcing and purchase systems that enabled access to agricultural inputs and/or services, and that track and reward more and better agricultural produce (in quantity and quality) from SHF suppliers to aggregators to transporters to retailers. These changes gained traction as SHF increased access to markets, knew the output buyers' demand, met quality and quantity expectations, and reliably sold to output buyers investing in them (not side-selling).<sup>39</sup>

<sup>38</sup> FTF INOVA Final Report, 2017-2022

<sup>39</sup> Mozambique FTF INOVA Annual Report, 2020-21

The shift in terms of incentives and rewards offered to SHF who produce more and of better quality (as predetermined by output buyers) is encouraging. Transparent terms and an intent to purchase communicated by output buyers at the start of the season, have motivated commitment to increased productivity by SHF (see Figure below from ETG).

Figure 5 Cashew standards for the suppliers clubs with ETG<sup>40</sup>



For SCM, FTF INOVA hypothesized that, “if buyers of crops from SHFs recognized the competitive advantage of building a robust supplier base and investing in transparent and performance-based supply chain management practices, then the overall system will become more competitive, reliable, and inclusive of SHFs.”<sup>41</sup>

Private sector partners that implemented SCM activities were positive about the facilitation approach that FTF INOVA had used and were keen to offer differential pricing for higher quality product.

*“We have been in Mozambique for over 20 years, so we know that systemic change takes time. However, the output buying intervention by FTF INOVA has been very good and different from traditional projects where farmers receive goods and services for free. We offered a higher price incentive and the quality improved, even though it did not come to the actual line, but it was not that bad for Northern Mozambique.”*

**Shrikanth Naik, ETG.**

## Summary Case Studies

### Export Trading Group (ETG)<sup>42</sup>

Export Marketing Group (ETG) is a large multinational produce buyer/exporter that works with aggregators and smallholder farmers to procure products destined for export markets. ETG has

<sup>40</sup> Mozambique FTF INOVA Annual Report, 2020-21

<sup>41</sup> FTF INOVA Annual Work Plan, 2019.

<sup>42</sup> Data for case study compilation sourced from FTF INOVA and ETG

developed into a global player with a diverse portfolio of expertise across multiple industries, encompassing agricultural inputs, logistics, merchandising and processing, supply chain optimization, digital transformation, and energy.

### **The challenge**

Export market require a certain level of quality of processed cashew nuts. However, in the Mozambican market, price differentiation based on quality is not a general practice. The market did not consider raw cashew nut quality standards. All raw cashew nuts were purchased at the same price, which discouraged producers from investing in production quality technologies. Consequently, smallholder farmers do not have strong incentives or support to improve production in terms of quality and quantity. Therefore, downstream development of support services to improve quality and quantity did not occur organically.

### **The intervention**

FTF INOVA worked in partnership with ETG to support its vision of facilitating the development of a market system that values raw cashew nut quality standards to increase the value of the product. ETG also wanted to create the opportunity for smallholder farmers to produce this quality product by facilitating access to a high value and reliable market. To achieve this, FTF INOVA **co-invested with ETG to increase the quantity and quality of cashew nut production by organizing producers into supplier clubs and facilitating access to spraying services**. FTF INOVA support was through co-financing the innovation as a way of risk reduction on the part of ETG to implement the spray service providers/product aggregators initiative, with incentives and awards to best spray service providers and best producers/suppliers of quality raw cashew. FTF INOVA also provided capacity building to the spray service providers to act as cashew aggregators, which was an additional revenue stream for them.

### **Systemic Results and Impact**

ETG now signs contracts with spray service providers to create and manage raw cashew nut supplier clubs to ensure, through pre agreements, quality production for ETG (guaranteed offtake market). Secondly, ETG now provides technical assistance, transport, and bags to spray services providers to aggregate and transport quality cashew to ETG facilities. Finally, ETG has established aggregation points to collect and store the raw cashew aggregated by the spray service providers. In terms of actual results, 69 spray service providers/aggregators across 5 districts signed contracts with ETG. Each of these 69 SSP/aggregators assists a group of producers, totalling 1,343 producers who are members of ETG's raw cashew nut supplier clubs.

ETG highlighted that although the quality did not come to the "actual line," it had improved significantly by Northern Mozambique standards, and they could process the cashew.<sup>43</sup>

The intervention resulted in the following impacts:

- Increased number of customers for SSPs i.e. because of the ETG's initiative, the SSPs have a greater number of cashew producers to serve;
- Increased income for SSPs from the additional role as aggregators;
- Smallholder farmers now being rewarded for higher quality of cashew. Crucially, this price is agreed beforehand so there are no surprises at delivery (see Figure 4);
  - By having access to a spraying service, small cashew nut producers have been able to increase the quantity and quality of cashew produced, thereby resulting in increased income;
- Smallholder farmers now have increased access to information about types and grades of cashew, as well as information about grade based pricing and good agricultural practices (extension);
- Smallholder farmers have a guaranteed offtake market via the ETG channel;

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<sup>43</sup> Discussion with Senior ETG Manager based in Nampula

- Increase in productivity i.e. in past seasons 3.5kg of cashew were harvested on average, per tree. After this intervention, 8kg on average were harvested per tree; and
- Increased raw material supply for ETG from smallholder farmers. ETG report that 500MT of cashew were procured from smallholder farmers in 2021.

#### Miruku<sup>44</sup>

Miruku Agro-Industria is a processor and buys, processes, and sells agricultural products especially maize and soya beans. Miruku is a business cooperative providing business development services (BDS), which focus on strengthening business initiatives through improvement of competitiveness of SMEs, cooperatives, emerging farmers, and farmer organizations. It also focuses on socioeconomic empowerment of rural communities, through awareness on business mindset, training, and assistance of the development of business-related initiatives (entrepreneurship).<sup>45</sup> Miruku's operations are concentrated in Monapo and Alto Molócuè.

### The challenge

The cooperative and association model of supply chain management faced constraints that limited the profitability of the offtaker producer relationship, and, in turn, presented opportunities for improved quality of production, reliability of production, and ultimately, improved profitability. Producers frequently engaged in side-selling, given the unreliable buyer supplier relationship, which further undermined the relationship between the actors involved and hindered the predictability of supply volume. Consequently, there were limited to no incentives for higher performing producers, thus limiting their entrepreneurial growth, and in turn, optimal supply for offtakers like Miruku Agro Indústria.

### The intervention

FTF INOVA worked in partnership with Miruku to support its vision of increased producer crop quality and increased producer loyalty and, as a result, reduced side selling and improved reliability. To achieve this, FTF INOVA provided **technical assistance in designing a new supply chain management mechanism and co-invested in the establishment of supplier clubs** formed by maize and soybeans producers to sell to Miruku through pre agreed purchase terms. FTF INOVA also supported the identification of producers to be part of the supplier clubs as well as a survey to capture feedback from producers on the development of supplier clubs throughout the different stages in the season (access to inputs, technical assistance, production quality, sales, and prizes).

### Systemic Results and Impact

Miruku has now established purchase terms with producers (supplier clubs) at the beginning of the growing season and facilitates access to quality inputs and technical assistance by these producers. To encourage good agricultural practices, Miruku segmented clubs into different membership levels offering financial and non-financial incentives and rewards for quality and contract compliance. To better understand customer needs, Miruku now conducts farmer satisfaction surveys to gauge continued interest and effective functioning of the suppliers clubs.

The intervention resulted in the following impacts:

- The participation of suppliers in the supplier clubs gives them a guarantee that they will access inputs, extension, and a guaranteed offtake market;
- Increased smallholder farmer access to higher quality inputs and technical assistance;
- Improved crop husbandry practices at the farmer level due to extension access, leading to improved productivity and income;
- The supplier club model improved productivity and quality control, thereby reducing costs and increasing profit
  - 38% increase in productivity; and

<sup>44</sup> Data for case study compilation sourced from FTF INOVA and Miruku

<sup>45</sup> <http://www.miruku.co.mz/index.php/en/>

- 16% higher price paid to farmers for higher quality maize delivered.

The table below is adapted from the 2019 Stocktaking report and summarises SCM partner progress since the mid-term evaluation.

Table 2 SCM Partner Progress in Reaching Scale<sup>46</sup>

| Innovation                                               | Partner           | Positioning for Scale                                                                                                     | Achievement                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aggregation for Direct Sourcing                          | MeTL & Miruku     | Adopting different farmer group-based sourcing models to aggregate farm supply in line with milling specifications        | Miruku offered farmers incentives ( e.g. inputs and technical assistance) which contributed to an increase in productivity and quality. Miruku paid farmers 16% higher for higher quality maize, because of the reduced cost of selecting grains and potential for improved profits thus improving the income of these SHF<br>MeTL was dropped due to non-communication from the company |
| Direct Farm Sourcing and Wholesaling for Micro-retailers | Ka da Terra (KdT) | Adopting a new sourcing/wholesale strategy by searching for farmers with capacity to supply quality grains (beans, rice). | KdT engaged local transport and branding services to bring branded rice from the central regions to Maputo. The KdT rice brand became the 2nd best seller. This intervention is benefiting thousands of SHF suppliers, 25% of whom are women, who now have better terms of the sale for their rice                                                                                       |
| BRC Certification for Higher Value Export Markets        | Condor Nuts       | Adapted cashew sourcing systems (traceability) and internal operations (accounting/audit) to comply with BRC rules        | Due to prohibitive international certification costs, this intervention changed to promote Mozambican standards within national industry associations and their members to ensure SHF higher prices for higher quality production, but not necessarily meeting international certification standards                                                                                     |

## Theory of Change Linkages

As outlined in FTF INOVA's theory of change, activities envisaged under the SCM market system were:

- Performance management schemes with farmers developed and implemented;
- Local produce sourced in domestic markets and branded; and
- Strategic alliances in the supply chain with farmers formed.

FTF INOVA managed to implement all the activities envisaged in the theory of change, with a direct causal link to the market system changes highlighted below. Appreciation of quality standards and contract compliance amongst SHF was a discernable change, which was appreciated by output buyers such as Miruku and ETG as these reduced costs of grading and reduced incidences of product rejection.

The market systems changes envisaged were:

- Output buyers' purchases from farmers improved;
- Domestic produce locally valued; and
- Agricultural output buyers' use of service providers improved.

<sup>46</sup> Adapted from Stocktaking Report on FTF Mozambique: Progress in Achieving Impact at Scale. M. Bear, 2019

Evidence from KdT's work in the local rice sector, Miruku's work in suppliers' clubs and ETG's work in cashew differential pricing for higher quality under the spraying service intervention are testament to FTF INOVA's facilitation of market system changes in the SCM market system.

## Support Services (SS)

FTF INOVA engaged with marketing firms, universities, logistics, ICT firms and radio stations to develop options for delivering services to the agricultural sector. FTF INOVA probed:

- **Marketing firms develop and provide services for agribusinesses** to facilitate access to a new set of agri-based clients, expanding retail to the SHF better;
- **Worked with universities to develop market oriented curricula** and facilitate linkages with private agribusinesses for student interns and employment. This was a low-cost market-driven service to the agriculture sector improving value offered to customers, suppliers, and building the youth workforce;
- **Transportation and logistics agriculture support services** help companies reduce aggregation costs and enable more cost-effective transportation services for distribution to the last mile SHF;
- **Applying financial service solutions through agribusiness partners** allows expansion of products and services to more rural areas, and improve access to technologies for SHF;
- **ICT-Enabled inventory and digital payment solutions for agribusinesses** allows for better inventory and customer management practices that facilitate better services to SHF as customers;
- **Use stakeholder dialogues** to advocate for improvements in services that enhance business operations in the agriculture sector; and
- The recognition of **good business practices in the form of public awards and rewards** can serve as a vehicle to drive quality improvements in specific agricultural sectors.

These probes were tested through experiments with different partners with distinct roles in the supply chain, e.g. large exporters, wholesalers, domestic retailers, and aggregators covered by 14 Market Actor Partner Agreements (MAPA) and 16 deal notes throughout the five years of the project.<sup>47</sup>

The two market system changes facilitated by activities with partners and other actors were:

- Increased focus on the agricultural sector from service providers; and
- Improved rewards for quality of agricultural product(s) and service(s)

These changes were evidenced by service providers effectively developing, marketing, and branding their products and services to be tailored for the agricultural sector. These changes gained traction as agricultural firms' business improvements effectively serving farmers to improve their productivity. Productivity improvements were facilitated through various services, including logistics, finance, marketing and information, communication, technology, and management solutions.<sup>48</sup>

For the Support Services System, FTF INOVA hypothesized that, "if market actors (especially SHFs) can engage specialized agri-services that are increasingly consistent, cost-effective, and accessible, then the overall system will become increasingly competitive and inclusive."

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<sup>47</sup> FTF INOVA Final Report, 2017-2022

<sup>48</sup> Mozambique FTF INOVA Annual Report, 2020-21

According to the FTF INOVA team and most agricultural market system stakeholders engaged, the support services system was the least advanced of the three focus system at baseline and close out. Consequently, evidence of sustainable systemic change was limited but encouraging signs of increasing appreciation of the need for support services for the agricultural sector were apparent (see text box below).

This was in part because the markets for support services in agriculture in Mozambique was underdeveloped at baseline relative to the other two systems and there was more need in this system to prove a business case for private and public actors, some, like Appload and Tangerine, who had never worked with agriculture before.

*“Although more support is required, the University has taken the work initiated with FTF INOVA support forward by establishing a stand-alone career centre with its own physical office. The centre is designed as a hub for interaction between students and the private sector where specific companies with specific requirements which are not ordinarily taught during the degree programme can engage the relevant faculty for alignment .”*

**Eng. Newton Oficio, Universidade Catolica de Mocambique (UCM)**

## Summary Case Studies

### Appload<sup>49</sup>

Appload is an online logistics marketplace that connects clients in need to ship cargo with relevant logistics companies, therefore establishing a professional network among the industry's value chains. Within a single online platform, clients can book, pay, monitor, and rate the performance of the shipper in Mozambique and the region. Shippers request a trip, while carriers place an offer in real time. Shippers then select the best offer, pay, monitor, and rate on the platform. Appload currently operates in Mozambique's domestic market as well as on cross border trips with South Africa and other regional countries.

### The challenge

Transportation/logistics is a key support service in the agricultural market system. Agricultural producers/traders spend a lot of time searching for reputable transport providers with the requisite insurance to cover their loads in the event of accidents or damage. Producers usually resort to informal transporters who do not provide insurance or use proper handling procedures, meaning that product deterioration, damage or loss is prevalent in such instances. This results in significant post-harvest loss for the farmer. Use of digital technology to overcome this challenge is not widespread in Mozambique and this presented an opportunity for FTF INOVA to pilot the Appload model.

### The intervention

The broad objective was to contribute to the development of a more competitive logistics value chain in Mozambique by addressing key constraints in the structure, reliability, and efficiency of transportation services. The partnership conducted research within the agricultural inputs distribution system and supply chain, customized Appload's platform to fit agricultural needs and tested sustainability and functionality of the platform with identified input firms and commodity buyers.

FTF INOVA worked in partnership with Appload to support its vision of reducing farmers/shippers' transportation search costs which will increase efficiency and ultimately increase income as transportation costs are reduced through increased competition on the platform. To achieve this, FTF INOVA **co-invested in the design and implementation of a call centre solution for**

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<sup>49</sup> Data for case study compilation sourced from FTF INOVA and Appload

**customer management.** FTF INOVA also provided technical assistance to conduct a feasibility study of the applicability of Appload's model in the Mozambican context. FTF INOVA also supported a study of the best way AppLoad could engage small, informal transporters at the district level to get them registered on the platform.

### **Progress towards Systemic Results and Impact**

The Appload platform facilitated linkages between market actors and transporters by identifying the location of transporters as well as cargo destinations. To date, Appload had created a web-based platform and registered more than 100 clients, 300 transporters and more than 3,000 trucks, covering over 150,000 km in Mozambique and the surrounding region – facilitating not only domestic trade, but exports as well. Currently, about 75% of the goods being transported are agriculture-based goods. This brings new opportunities because such support services providers are becoming more interested in offering their services to the agriculture sector. Also, agriculture sector players are also showing interest in using well-organized logistics platforms – and paying for these services.

The intervention resulted in the following impacts:

- Increased participation of agricultural producers in online logistics management via the Appload platform
  - 75% of Appload business now is agriculture based;
- Increased logistics efficiency through provision of vital services such as insurance; and
- Reduced logistics search costs as transporters are pre-vetted before being registered on the platform so clients have the peace of mind that they are dealing with reputable service providers

### **Unilurio Business School (UBS)<sup>50</sup>**

Lúrio University (UniLúrio) is a public university is playing a very important role in Mozambique's development by providing training opportunities for Mozambique's youth. It was established by the Government of Mozambique in 2006 to expand higher education and research in the country. In its structure UniLúrio has 4 campus and 7 separated faculties located in the three northern provinces of Mozambique, namely Nampula, Cabo Delgado and Niassa. This case study focuses on strengthening the Business School (UBS) to integrate more into agriculture.

### **The challenge**

FTF INOVA analysis highlighted that Mozambique's thin agricultural market has few networks or relationships between agro-dealers and VBAs because market players cannot access affordable and trustworthy business development services to assist them to improve efficiencies within their businesses through innovative business models. Consequently, agro-dealers do not innovate and grow in their business because they are unable to invest in business development services. The result of this is a weak input distribution network that does not easily reach small producers.

### **The intervention**

FTF INOVA worked in partnership with UBS to support its vision of establishing business opportunities for their students by testing and proving the value of offering junior consulting services and providing the opportunity for hands on learning for UBS students. To achieve this, FTF INOVA **co-invested to support UBS upgrade their curriculum and establish more linkages with private actors in the agriculture sector to deliver junior consultancy services through internships.** FTF INOVA co-financed a probe in which UBS students provided **support and consultancy to agro-dealers**, providing different types of technical knowledge and assistance. FTF INOVA was also active in raising awareness among agro-dealers regarding the importance of expanding to the last mile through networking with VBAs to reach more local farmers.

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<sup>50</sup> Data for case study compilation sourced from FTF INOVA and UBS

## Systemic Results and Impact

UBS has now improved/expanded its curriculum through the inclusion of practical modules such as simulations of business expansion and management models and marketing contests. The business school has also improved its resources center to increase capacity for more students to participate. Through this, UBS has increased the opportunity for students to venture into the agribusiness/agricultural profession, with a specific focus on agricultural input distribution. Lastly, UBS has invested in marketing material to broadcast their model to the market, increasing their partnerships, and improving the demonstration effect to other universities. A total of 111 students were trained of which 20 interns were placed through this activity in the first round, across 10 agro-dealers and 47 VBAs, reaching a total of approximately 2 600 smallholder farmers.

This intervention resulted in the following impacts:

- Improvement in marketing and financial organization
  - The activity has improved various aspects of agro-dealer operations, such as financial organization and marketing;
- Increased sales, with some agro-dealers being quoted saying that VBAs were now contributing between 15 and 20% of sales per month;
- UBS created Mozambique's first dedicated incubator for agricultural trading and retailing businesses, where graduate students developed innovations to improve agriculture retail services;
- On the back of this, EASI Seeds - a joint venture between the European and African Seed Industries - approached UBS to use the incubation center to develop its distribution network from scratch;
- UBS developed a technical service provision model engaging junior consultants/interns who provide tailored advice for input suppliers and output buyers. UBS also integrated agriculture modules in its third-year courses, while also launching short courses for agriculture managers; and
- UBS's two pilot - 20 junior consultants - benefitted 2 600 SHFs served by agro-dealers. Some have secured long-term employment which encouraged other youth to apply to the UBS program (16 found permanent employment in the sector).

Table 3 SS Partner Progress in Reaching Scale<sup>51</sup>

| Innovation                    | Partner   | Positioning for Scale                                                                                              | Achievement                                                                                                                                                                                                                                                                                                            |
|-------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Strengthen SHF/Consumer Voice | SIRT      | Adopted audience-led programs. Adapting a more commercial way of doing business (more private sponsors)            | The initiative has been adopted by Radio SIRT which now has agricultural specific programs supported mainly by Phoenix Seed and K2 in their marketing and customer feedback programs. Radio SIRT has also started engaging in agricultural fairs where they put the voice of the SHFs on radio as a feedback mechanism |
| Improved Shopping Experience  | Tangerine | Adopting a commercial offer to improve agro-dealers ability to deliver more customer value to small holder farmers | Tangerine developed a new web-based platform called Cultiva which gave input distributors and agro-dealers real-time access to data on product availability and sales rates at dealer shops. During the pilot phase, Tangerine linked 1,000 agro-dealers via the Cultiva platform                                      |

<sup>51</sup> Adapted from Stocktaking Report on FTF Mozambique: Progress in Achieving Impact at Scale. M. Bear, 2019

|                                 |              |                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vetted, efficient logistics     | AppLoad      | Adapting an on-line transport/logistics platform designed for FMCG by researching its application for agriculture | Appload created a web-based platform and registered more than 100 clients, 300 transporters and more than 3,000 trucks, covering over 150,000 km in Mozambique and the surrounding region, transporting more than 60 tons of cargo. Systemically, key services such as insurance and vetting are now accessible to shippers/farmers/traders via this platform                                                                                                                                                                                          |
| Skills Building through Interns | UBS          | Adopting of an internship program model with plans to expand                                                      | A total of 16 interns were placed through this activity, across 10 agro-dealers and 47 VBAs, reaching a total of approximately 2,600 smallholder farmers. Systemically, UBS has now expanded its curriculum to include practical modules such as simulations of business expansion and management models and marketing contests                                                                                                                                                                                                                        |
| Professional Spray Services     | Ngala        | Adapting a payment scheme from in-kind to cash payments to expand its services                                    | Using 10 SSPs, Ngala provided cashew spraying services to a segmented client base of 215 cashew farmer customers with an average of 23 cashew trees each. This new method allowed the company to identify 346 farmers who qualified to receive chemicals and spraying services on credit. For the rest of its 86 customers, Ngala offered spray services instead under direct cash payment terms. This market segmentation has allowed the company to reduce to zero its losses and to start to invest in activating demand and offer a better service |
| Tillage/Planting Services       | Prodeca Carl | Expanding outreach by adding new service offers for small holder farmers                                          | No new services.<br>Received support for a feasibility study and business plan to approach potential investors with                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### Theory of Change Linkages

As outlined in FTF INOVA's theory of change, activities envisaged under the SS market system were:

- Agricultural services sector developed; and
- Good business practices recognized.

The linkages between SS activities and SCM activities and market system changes were amplified through activities in this market system. Development of agricultural services such as spraying services tested and refined with Isolmoc and ETG resulted in better quality at the farm level, leading to increased purchase volumes by output buyers. Good business practices at the supplier club level resulted in recognition of quality by the output buyers who offered higher prices for higher quality.

These activities had a direct causal link with the market system changes outlined below.

The market systems changes envisaged were:

- Agricultural focused service sector developed; and
- Quality agricultural products and services rewarded.

Evidence from Miruku's work with suppliers clubs improved product quality and contract compliance, UBS's work with junior consultants placed with agro-dealers improve customer centric service provision and Appload's work increased efficiency in the transport and logistics and reduced in transit risk by providing insurance.

## Effectiveness, Efficiency, and Sustainability of market systems interventions

### Effectiveness

Effectiveness helps in understanding the extent to which an intervention achieved its objectives. It can provide insight into whether an intervention has attained its planned results, the process by which this was done, which factors were decisive in this process and whether there were any unintended effects.<sup>52</sup>

### Quantitative Results<sup>53</sup>

FTF INOVA has performed well against its logframe indicators (see Table 4) and facilitated extensive market system changes as per the theory of change. Notable achievements across the 3 market systems, as highlighted in the results section above, include:

### Input Distribution Network

The innovations that FTF INOVA supported in input distribution networks have made markets more inclusive for thousands of poor families in some of Mozambique's most vulnerable communities. This was done **first by raising the importance of the SHF segment for input suppliers** and then helping deliver more value to smallholders for their purchases through.

- More efficient distribution channels and inventory management are increasing the competitiveness and profitability of agro-dealers;
- Effectively managed and incentivized village-based agents to ensure last mile delivery of inputs into deeper rural areas;
- Clearly branded products scaled to the purchasing power of the SHF are increasing demand and sales;
- Improved linkages and synergies between input distributors and output marketing companies are stimulating increased productivity and access to better markets; and
- Changes in university training and internships to target agribusiness as a career are increasing capacity in agricultural input firms as well as universities.

***Inova directly impacted the lives of more than 180 000 farmers through increased productivity, efficiency and/or income, while empowering more than 100,000 SHF and more than 130 private sector companies with increased agency.***<sup>54</sup>

### Supply Chain Management

FTF INOVA worked with partners to explore the business case for **Mozambican companies to establish longer-term relationships with smallholders**. This included analyzing the supply capacity (potential suppliers, year-round production availability and volumes, and quality), logistics

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<sup>52</sup> [https://www.oecd-ilibrary.org/sites/543e84ed-en/1/3/4/index.html?itemId=/content/publication/543e84ed-en&\\_csp\\_=535d2f2a848b7727d35502d7f36e4885&itemGO=oecd&itemContentType=book#section-d1e3395](https://www.oecd-ilibrary.org/sites/543e84ed-en/1/3/4/index.html?itemId=/content/publication/543e84ed-en&_csp_=535d2f2a848b7727d35502d7f36e4885&itemGO=oecd&itemContentType=book#section-d1e3395)

<sup>53</sup> Quantitative results are based on data provided by FTF INOVA

<sup>54</sup> FTF INOVA Final Report, 2017-2022

costs (transport, packaging, storage, and distribution), and especially consumer preferences for domestic produce.

- Domestic products increasingly valued locally by suppliers and buyers;
- Improved purchasing terms between output buyers and SHFs; and
- Output buyers are now using service providers and more effectively.

An increasing numbers of farmers producing higher volumes of cotton, maize, and soy with the right quality and in line with supply agreements.

***A total of 5,725 farmers, of which 36% are women, have upgraded their supply of agricultural commodities to meet buyers' specifications and are benefitting from access to high quality inputs, knowledge, and better sales terms. KDT purchased rice from approximately 36,500 Mozambican farmers through an aggregator (Impere) and sold this product to distributors. In addition, 81 SSPs signed contracts for cashew aggregation and management of a network of cashew suppliers with ETG and ETG sourced an additional 479,882 kgs of cashew from 1,343 smallholder cashew producers through the 81 SSPs. Most importantly, ETG paid farmers prices up to 2 MZN per kg higher than the prevailing market price.<sup>55</sup>***

### **Support Services**

FTF INOVA increased focus on the agricultural sector from service providers **who now offer marketing and business services, workforce and business development services, logistical and agricultural delivery services (transport, spraying), financial services, and ICT**. FTF INOVA also facilitated improved prices and rewards for quality products delivered using feedback collection and monitoring from SHF and other market actors with community and national radios and stakeholder dialogue platforms. In addition, a seed association and commodity platform associations helped set, monitor, and reward quality standards in cashew, cotton, and other agricultural commodities.<sup>56</sup>

- Tangerine developed a new web-based platform – Cultiva – which gives input distributors and hundreds of agro-dealers real-time access to data on product availability and sales rates at dealer shops. ***During the pilot phase, Tangerine linked 1 000 agro-dealers via the Cultiva platform; and***
- FTF INOVA supported UBS to develop a technical service provision model engaging junior consultants/interns who provide tailored advice for input suppliers and output buyers;
  - ***16 interns were placed and benefitted 2 000 SHFs served by agro-dealers and 9 of the 16 secured long-term employment which encouraged other youths to apply to the UBS program.***

### **System Level Results**

FTF INOVA set out to influence how agricultural systems in Mozambique evolve by promoting better integration of SHFs, women and youth in agribusiness value chains. The key inclusive behaviors that FTF INOVA sought to integrate into market players' operations were in **business strategies, patterns of competition and cooperation among input suppliers, as well as purchasing and adding value** to supply chains. System-level changes were captured in terms of patterns of **trust, cooperation, and competitiveness**.

**Competitiveness** was measured in how effectively market actors face competition or changes in the market by innovating:

- The Business Model Innovation Index (BII) average score across all three portfolios increased from 0.28 to 0.80 (on a scale from 0 to 1). Innovations pursued included new brands and new types of products (like seeds, pesticides, hoes, personal protective equipment, etc.) and new

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<sup>55</sup> FTF INOVA Final Report, 2017-2022

<sup>56</sup> FTF INOVA Final Report, 2017-2022

types of services (like customer service by telephone and issuing credit to select customer segments); and

- Practical examples of this were evident during the evaluation in discussions with actors like CdA, K2 and Bayer who noted that the innovations started with FTF INOVA support were now a core part of their business models i.e. CdA is looking to expand the Rota Certa model; K2 is expanding its agro-dealer-VBA networks and increasing the use of technical information on calendars and seed packs and Bayer has internalized the hub agro-dealer model.

The BII was used to assess competitiveness by monitoring how well market system actors can face competition and incrementally innovate their business models to compete successfully. A business innovation or adaptation includes **development of new products or services, processes, marketing, and/or organizational functions**. The calculation measures changes made to business models on a scale of 0 (no innovation reported) to 1 (five or more innovations reported) during the period. Low innovation levels, especially in products and services geared towards SHFs, presented a challenge for FTF INOVA. Based on FTF INOVA figures, since the programme's launch, business innovations across the agriculture sector in the zone of influence nearly tripled (up 286%) and were most pronounced in input distribution networks. Almost 90% of the 140 businesses interviewed by FTF INOVA confirmed that they had introduced at least one innovation in the prior six months.

Figure 6 Business Index Innovation by system (2018 and 2020)<sup>57</sup>

| 2018                              |                                             |                                              |                              | 2020                              |                                             |                                              |                     |
|-----------------------------------|---------------------------------------------|----------------------------------------------|------------------------------|-----------------------------------|---------------------------------------------|----------------------------------------------|---------------------|
| Number of surveyed firms          | Number of surveyed firms with an innovation | Average # of innovation in the past 6 months | Average Baseline Index Score | Number of surveyed firms          | Number of surveyed firms with an innovation | Average # of innovation in the past 6 months | Average Index Score |
| Support Services System           |                                             |                                              |                              | Support Services System           |                                             |                                              |                     |
| 17                                | 7                                           | 0.52                                         | 0.10                         | 28                                | 23                                          | 2.68                                         | 0.53                |
| Input Distribution Network System |                                             |                                              |                              | Input Distribution Network System |                                             |                                              |                     |
| 27                                | 21                                          | 2.04                                         | 0.40                         | 84                                | 80                                          | 5.23                                         | 1                   |
| Supply Chain Management System    |                                             |                                              |                              | Supply Chain Management System    |                                             |                                              |                     |
| 15                                | 11                                          | 1.40                                         | 0.28                         | 45                                | 37                                          | 2.53                                         | 0.51                |

| Interview date | Number of surveyed firms | Number of surveyed firms with at least one innovation | Total number of innovations | Average BII score | Median BII score |
|----------------|--------------------------|-------------------------------------------------------|-----------------------------|-------------------|------------------|
| 2018           | 59                       | 39                                                    | 85                          | 0.28              | 0.26             |
| 2020           | 157                      | 140                                                   | 628                         | 0.80              | 0.68             |

Engagements with market actors during the evaluation revealed that innovation was viewed as a risky, but necessary process. To that end, smaller enterprises with limited resources did not set aside enough resources for innovation. Larger agribusinesses like ETG had more resources to try out new models which could work or fail without jeopardizing the core business, whereas smaller companies like Winnua noted that small innovations, like purchasing 10 tablets for their field officers, could negatively affect cashflow in the business to an extent that the core business of output buying, and processing is affected. Discussions with support services providers like Universidade Católica de Moçambique (UCM) and UBS revealed that both institutions understood the need for innovation to align with private sector requirements, but the resources to implement the required innovations were not available so they have to continue engaging development partners to move the career centres to the

<sup>57</sup> FTF INOVA Final Report, 2017-2022

next level. Total disengagement by development partners, in the absence of funding from elsewhere, at this stage could reverse the gains made to date.

**Trust** was measured by an index of the dimensions of integrity, competency, and reliability that consumers and providers expect of one another. Trust index scores slightly more than doubled (up 218%). This was most pronounced in “reliability” wherein consumers now expect that providers will do what they promise to do much more than they had prior to FTF INOVA<sup>58</sup>:

- This score (on a 0 to 3 scale) rose from 0.71 at baseline to 1.55; and
- A practical example was given by ETG who noted that the quality of cashew had increased from SHFs and there was more trust between them and the framers as they had honored their pre-agreed price for the three tier quality system that had been devised (see Figure 4).

Table 4 Trust scoring matrix (2018 and 2020)<sup>59</sup>

| DIMENSIONS OF TRUST | Subject of the norm | Score 2018 | Score 2020 | Confidence level (2018 and 2020) |
|---------------------|---------------------|------------|------------|----------------------------------|
| Competence          | Provider            | 1          | 1.67       | 3                                |
|                     | Consumer            | 0.75       | 1.33       | 3                                |
| Reliability         | Provider            | 0.5        | 2          | 3                                |
|                     | Consumer            | 0.5        | 1.33       | 3                                |
| Integrity           | Provider            | 0.5        | 1          | 3                                |
|                     | Consumer            | 1          | 2          | 3                                |
| Overall Score       |                     | 0.71       | 1.55       | 3                                |

Similarly, **cooperation**, which is measured by the dimensions of beliefs that consumers and providers have that relationships are important and mutually beneficial, rose from 0.69 in the baseline to 1.33. The cooperation index scores almost doubled from the baseline (up 193%). For example, more providers now believe that consumers will value a relationship with them enough to make determined efforts to maintain it, like expecting SHFs to show customer loyalty to input suppliers.

Table 5 Cooperation scoring matrix (2018 and 2020)<sup>60</sup>

| DIMENSIONS OF COOPERATION             | Subject of the norm | Score 2018 | Score 2020 | Confidence level (2018 and 2020) |
|---------------------------------------|---------------------|------------|------------|----------------------------------|
| Belief in importance of relationships | Provider            | 0.75       | 1.33       | 3                                |
|                                       | Consumer            | 0.5        | 2          | 3                                |
| Belief in mutually beneficial gains   | Provider            | 0.5        | 1          | 3                                |
|                                       | Consumer            | 1          | 1          | 3                                |
| Overall Score                         |                     | 0.69       | 1.33       | 3                                |

## Efficiency

Despite the challenges associated with operating in thin market for core market actors and supporting services, FTF INOVA managed to leverage significant financial resources from its implementing partners, both in cash and kind. The partnership model of FTF INOVA of using the deal note as the basis for commercial partnership ensured that almost all partnerships had co-investment from the implementing partners, in particular private sector partners. The majority of FTF INOVA's partners contributed resources to shared activities, amounting to approximately USD2.5 million generating

<sup>58</sup> ibid

<sup>59</sup> ibid

<sup>60</sup> FTF INOVA Final Report, 2017-2022

USD66.8 million in sales<sup>61</sup>. In this way, FTF INOVA was able to increase its efficiency by leveraging these additional resources, at no additional cost to USAID. The programme was efficient in using the available resources to deliver quality outputs and the budget was well-managed, which enabled a six month no-cost extension.

## Sustainability

Two recurring messages from stakeholders engaged during the evaluation were:

- Most of the interventions have the potential for sustainability because they aligned with the business model/core business of the partner since they had been involved in the development of the intervention at the deal note stage. In some instances, the partners have already embedded the innovations into the day to day operations post FTF INOVA.

*“We have embedded the women's development program within the company to give awards to the best producers”*

*Discussion with Novo Madal*

- Others like Winnua, have embedded the model but at a reduced scale due to cost and low business volume, with the hope that they will ramp up once they start selling more volumes.

*“We could never had done this investment ourselves without FTF INOVA. Now the support has gone but we have kept the people although it is expensive, so we are down to working with 500 farmers but have kept the competent staff we recruited with FTF INOVA and half of the field capacity. When we start selling better, we can ramp up and re-recruit any lost staff.”*

*Discussion with Winnua*

- The second message was that the FTF INOVA supported innovations, for example the one stop shop model, had potential for sustainability and had been internalized as part of the business model, but the partners could have benefitted with “a longer project period” working with FTF INOVA. Most stakeholders bemoaned the short time they had to work with FTF INOVA, noting that “just as we were getting to grips with the model, FTF INOVA ended.” It will be beneficial if upcoming USAID programs continued with the facilitation of some models started under FTF INOVA to ensure entrenchment of the innovations.

*“Through the one stop shop model supported by FTF INOVA, we have seen a change in customer acceptance –saving money and time. We have continued with the model beyond FTF INOVA, but we could have done with more support as the project with FTF INOVA was very short.”*

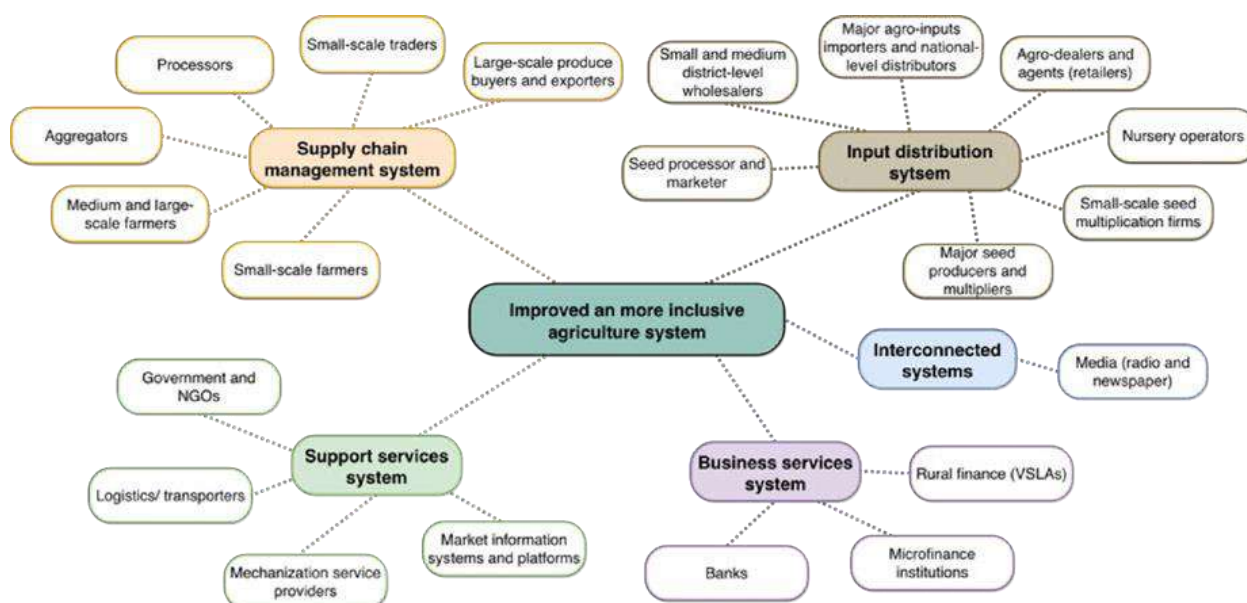
*Discussion with NovaTech*

## Sector Maturity Analysis

Although there were more interventions in the input distribution market system and these had more traction, interventions in the supply chain management and support services market systems were also impactful with some innovations in both showing signs of potential replication and scale up. The section below analyzes the maturity of each market system along an MSD continuum.

<sup>61</sup> Discussion with the FTF INOVA COP, June 2022

Assessing market systems change follows the pathways of interconnectedness shown in the diagram below, **highlighting how various parts of the system must work for the whole to function effectively.**



FTF INOVA focused on three functions (**input distribution, supply chain management and support services**) which are essential components of the agricultural market system and must be functioning effectively if the whole system is to be effective. Figure I below depicts the progress made over the five years of FTF INOVA implementation and facilitation in terms of market system change.

**Input distribution-** although input companies existed when FTF INOVA was designed and started in 2017, tailored marketing and relationship building with farmers was not a generally applied business practice. Farmers did not know what volumes input distributors had in stock and took a chance when they visited an agro-dealer, hoping that they would have the desired inputs/varieties in stock. Inputs were insufficiently tailored to farmers and there are no established customer feedback mechanisms. Input distributors simply assume what farmers needed. Now, after FTF INOVA facilitation, some input suppliers and agro-dealers have developed catalogues which articulate input availability and opened communication channels directly with the farmers where they can call the distributor ahead of coming to the shop to ascertain input availability. Farmers have welcomed this development, noting that it builds trust and allows them to plan. Input distributors reported that this relationship was progressive as they could now hold the right levels of stock and not disappoint their customers with frequent stock-outs. For example, Rota Certa trucking routes were reported (both by FTF INOVA and CdA) to have increased CdA's distribution capacity through regular deliveries along 17 routes to reach about 170 rural agro-dealers that serve smallholder farmers.<sup>62</sup>

The input distribution function was relatively well developed to begin, with some input distribution both in the North and South, albeit not coordinated effectively. As a result, the inputs distribution function is further along the continuum after FTF INOVA facilitation than supply chain management and support services as highlighted in Figure I.

**Supply chain management-** FTF INOVA reported that, “due to weak end-market signals and low levels of competition in the market, lead firms remain reluctant to invest in their supply chains. The

<sup>62</sup> FTF INOVA Annual Report, 2020-2021

prevailing business preference remains to keep supply flexible, with low levels of commitment, so that losses due to shocks in end-markets can more easily be offloaded on the supply chain.”<sup>63</sup> In 2017, investment by output buying companies in their supply chain, especially on “soft issues” such as trust building and cooperation with smallholder farmers was limited to non-existent. Relationships in the supply chain for many agricultural commodities were primarily transactional and purchases happened on the spot or within a few days with little to no negotiated terms of sale.<sup>64</sup> Using transparent **performance suppliers’ network schemes**, FTF INOVA facilitated incentives and rewards which motivated farmers to improve their quality and quantity delivered to output buyers, whilst output buyers offered premium purchase prices for these types of farmers. For example in 2021, the schemes of ETG and Miruku recorded increasing numbers of farmers producing higher volumes of cotton, maize, and soya of the right quality (including sorting and grading) and complying with terms of supplying agreements. It was not clear at the time of the evaluation how many other companies had adopted a similar model, but this is a model that can expanded and replicated by other MSD programs.

FTF INOVA’s output marketing activities strengthened in Year 3, given the initial focus on input distribution, which is a precursor to a well-functioning output marketing system. As shown in Figure 1, this has moved supply chain management further along the continuum, albeit relatively less than input distribution, and there is still scope for significant adoption/expansion by additional companies.

**Support services-** support services (business development, agriculture services, skills development, logistics, finance, advocacy, and information, amongst others) are key to businesses’ efficiency and inclusive growth in the core functions of the agricultural market system (input supplying and output buying).<sup>65</sup> When FTF INOVA started in 2017, there were limited services targeting the agricultural sector because the sector was highly distorted by government and NGO-subsidized services. Service providers therefore did not see any incentives to invest in or tailor their services towards the agricultural sector, and they did not have a clear understanding of the sector’s business opportunities. With FTF INOVA’s facilitation, the support services function has shown some improvement over the past five years with these changes being evidenced by service providers effectively developing, marketing, and branding their products and services to be tailored for the agricultural sector in Mozambique. For example, **tailored workforce and business development services** were piloted successfully by UCM and UBS which are now seeing the value of integrating practical training modules tailored to the agriculture sector in their curriculum and investing in coaching student interns. The institutions noted that their reputation amongst private sector companies as a source of “work ready” graduates had increased, evidenced by the number of students who had been employed by companies in the sector. These pilots also demonstrated the potential for not only income generation for the universities but also for improving students’ skills and expanding their career opportunities, which should also contribute to increased enrollment. Another example is the **spraying services for cashew farmers linked to ETG**. Farmers are seeing value through higher prices paid for quality cashew whilst ETG sourced an additional 479 tons from SHFs through this intervention.

As shown in Figure 6 below, the movement of support services along the continuum was the least of the three, but appreciable nonetheless given the starting point in 2017. Support services for the agricultural sector were limited to non-existent at the beginning of FTF INOVA so traction in this function started much later than the other two functions. However, once the momentum started, it was clear that the private sector (for example Applod and Tangerine) and quasi-public sector (for example UBS, and UCM) were seeing the value of providing support services to the agricultural sector. Applod reported that over 70% of its business was in the agricultural sector. It is important to

<sup>63</sup> FTF INOVA Year 2 Annual Report

<sup>64</sup> FTF INOVA Annual Report, 2020-2021

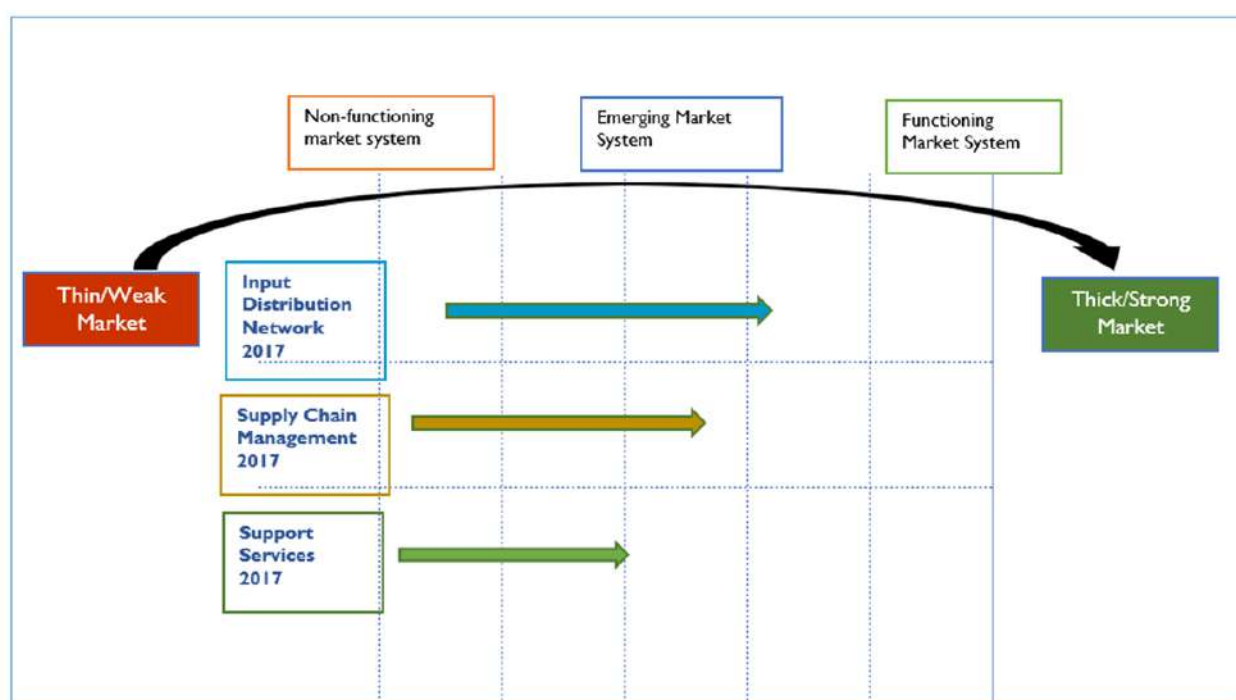
<sup>65</sup> FTF INOVA Annual Report, 2020-2021

highlight here that the lagging behind of support services is not a reflection of its lesser importance, but rather a reflection of its starting point relative to the other two functions. If new USAID or other donor programs support this function in a similar manner over the next two to three years, the continuum in Figure 1 will look different, with support services catching up with the other two functions.

In addition, **qualitative indicators of systemic change** are also important to measure. FTF INOVA tracked three indicators from baseline to end of implementation (**competitiveness, trust, and cooperation**). At baseline, qualitative information was collected from 137 respondents among 20 market actor types. The baseline report notes that, “interactions between system actors give rise to emergent behaviors that are more than the sum of individual actors’ behaviors and relationships. The market system indicators are designed to investigate long-term shifts in behaviors and expectations that appear consistently over time.”<sup>66</sup> In 2020, FTF INOVA conducted a follow-up assessment on the baseline values for competitiveness, trust, and cooperation and found that all three showed significant increases.

As detailed in System Level Results section, in 2020, the BII index average score (competitiveness) across all three portfolios increased from 0.28 to 0.80 (on a scale from 0 to 1) whilst the trust index (of integrity, competency, and reliability) -on a 0 to 3 scale- rose from 0.71 at baseline to 1.55 in the follow up survey. The cooperation score measuring relationships rose from 0.69 at baseline to 1.33 in the follow up survey.

Figure 7 Progression of FTF INOVA Supported Market Systems between 2017 and 2022



## Programme Logframe Targets and Achievements

FTF INOVA has performed well against its logframe indicators, particularly at the output level where all its results exceeded set targets. The table below shows FTF INOVA performance against targets.

<sup>66</sup> FTF INOVA Market Systems Baseline Report, 2018



Table 6 FTF INOVA Performance Against Targets<sup>67</sup>

| Number                     | Indicator                                                                                                                                         | Target                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | As of FY 2021 Cumulative Achieved           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <b>GNDR-2</b>              | Percentage of female participants in USG-assisted programs designed to increase access to productive economic resources                           | 36%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 34%<br><br>7,277 female/21,402 participants |
| <b>YOUTH-3</b>             | Percentage of participants in USG-assisted programs designed to increase access to productive economic resources who are youth (15-29) [IM-level] | 24%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 22%<br><br>1,708 youth/21,402 participants  |
| <b>EG.3.1-14</b>           | Value of new USG commitments and private sector investment leveraged by the USG to support food security and nutrition [IM-level]                 | 1,953,866<br><br>USG commitment amount = 195,386.60; Private sector partner leveraged amount = 1,758,479.40                                                                                                                                                                                                                                                                                                                                                                            | \$5,782,918                                 |
| <b>EG.3-2</b>              | Number of individuals participating in USG food security programs.                                                                                | 43,299<br><br>Male= 28,144; Female= 15,155; 30+= 35,938; 15-29=7,361                                                                                                                                                                                                                                                                                                                                                                                                                   | 175,357                                     |
| <b>EG.3.2-24</b>           | Number of individuals in the agriculture system who have applied improved management practices or technologies with USG assistance                | 30,359<br><br>Male= 24,287 Female= 6,072; 30+= 25,198; 15-29= 5,161                                                                                                                                                                                                                                                                                                                                                                                                                    | 109,396                                     |
| <b>EG.3.2-25</b>           | Number of hectares of land under improved technologies or management practices with USG assistance                                                | 36,431<br><br>Male= 29,145; Female= 7,286; 30+= 6,193; 15-29= 30,238                                                                                                                                                                                                                                                                                                                                                                                                                   | 103,250                                     |
| <b>EG.3.2-26</b>           | Value of annual sales of farms and firms receiving USG assistance [IM-level] -Value                                                               | \$32,194,349<br>Producer: smallholder= 18,994,666.06; Firm: small and medium enterprise= 5,151,096.11; Firm: Large enterprise or corporation =8,048,586.82; Male=20,604,383.36; Female=11,589,956.64 30+=24,467,705.24; 15-29 =7,726,643.76<br>Agricultural commodities=21,280,023.33<br>Inputs: Seeds and planting material=7,595,784.63<br>Inputs: Other nondurable inputs=3,255,336.27<br>Inputs: Durable equipment and machinery=35,883.95<br>Production support services=27320.82 | \$66,764,183                                |
| <b>EG.3.2-27</b>           | Value of agriculture-related financing accessed as a result of USG assistance [IM-level]                                                          | 7,083,891<br>Individuals/microenterprises=2,479,362; Small and medium enterprises=708,389; Large enterprises and corporations=3,896,140<br>Male=5,312,918 Female=1,770,973; 30+=5,667,113 15-29=1,416,778                                                                                                                                                                                                                                                                              | \$7,138,093                                 |
| <b>Custom Indicator #3</b> | Number of farmers who have a new/improved commercial relationship with partner firms                                                              | 14,209<br>Male=9,946 Female=4,263 30+=12,078 15-29 =2,131                                                                                                                                                                                                                                                                                                                                                                                                                              | 184,603                                     |
| <b>Custom Indicator #4</b> | Number of FTF INOVA partner firms who have new/improved commercial relationships with other firms                                                 | 60<br>Male=50 Female=10; 30+=55 15-29=5                                                                                                                                                                                                                                                                                                                                                                                                                                                | 139                                         |

<sup>67</sup> Table compiled from MEL Plan (Revised October 2020) and FTF INOVA Final Report (2017-2022)

FTF INOVA also recorded good progress at the market system level as described earlier in the report and summarized in the table below. This is the system level impact, distinct from the impact “directly attributable FTF INOVA investments with partners”. The table below summarizes innovations that had traction on three key metrics— business sustainability, inclusive value, and potential for scale. The potential for sustainability is clear, and this is supported by the evidence presented by the stakeholders in the sustainability section above.

Table 7 Impact of Key FTF INOVA Innovations

| Development Impact for Smallholder Farmers         | How many SHF directly impacted? | What innovations contributed to impact?                                                                                                                                                                                                                                                                                                                                                                                                                | Importance of impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Increased SHF voice, choice, and control of inputs | 108,160 SHF                     | <ul style="list-style-type: none"> <li>• Trucking on rural routes (CdA)</li> <li>• Pre-ordered inputs (K2, Bayer, Oruwera, Luteari)</li> <li>• Customer Centric product(s)/Services (Oruwera, Novatech, K2, CdA)</li> <li>• Tailored marketing, workforce development and business services towards the SHF segment (Tangerine and UBS)</li> <li>• Recognition of good business practices in the form of public awards and rewards (APROSE)</li> </ul> | The decision-making power of what inputs smallholder farmers can order, and buy is increasing. An outcome harvest revealed and validated that the power dynamics in the agricultural market system are beginning to shift as farmers are not stuck between what is stocked on the local shelf versus traveling to a larger retail/distributor store several kilometers and hours away. They can place orders, close to home, without a markup. Also, the expectation from smallholder farmers that input buyers see value in being responsive to their needs has increased, as seen in surveys.                                                                                                                                                                                                                                        |
| Increased productivity (between 25% and 35%)       | 44,500 SHFs on 58,000 hectares  | <ul style="list-style-type: none"> <li>• Trucking on rural routes (CdA)</li> <li>• Pre-ordered inputs (K2, Bayer, Oruwera, Luteari)</li> <li>• Transparent performance suppliers' network schemes (Miruku, Novo Madal, Olam, and ETG)</li> </ul>                                                                                                                                                                                                       | The adoption of improved inputs, practices, and technologies (like improved seeds, fertilizers, tractors, production plans, etc.) increases productivity and profitability in terms of human and physical resources. Outcome harvests with supplier club participants revealed that smallholders were better able to meet off taker standards by improving production practices and gaining increased access to inputs.                                                                                                                                                                                                                                                                                                                                                                                                                |
| Increased income (between 116% and 300%)           | 85,000 SHFs                     | <ul style="list-style-type: none"> <li>• Transparent performance suppliers' network schemes (Miruku, Novo Madal, Olam, and ETG)</li> <li>• Domestic produce supply chain development (KDT and PROP)</li> <li>• Trucking on rural routes (CdA)</li> <li>• Pre-ordered inputs (K2, Bayer, Oruwera, Luteari)</li> </ul>                                                                                                                                   | Supplier club affiliated farmers received incentives (inputs, mechanized crops, and technical assistance) from companies like Miruku, which contributed to an increase in productivity and quality. Miruku paid farmers 16% higher for higher quality maize, because of the reduced cost of selecting grains and potential for improved profits thus improving the income of these producers. Comparably, Olam paid farmers 19% higher for higher quality cotton. Most of the ETG spray service provider affiliated SHF tripled their income in the 2021 -2022 season. Additionally, in outcome harvests, farmers consistently attributed increased incomes to the improved access to inputs they receive from Rota Certa, which reduced costs, and increased productivity. Findings from customers of preordered inputs were similar. |

|                        |             |                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Transportation savings | 85,000 SHFs | <ul style="list-style-type: none"> <li>• Trucking on rural routes (CdA)</li> <li>• Pre-ordered inputs (K2, Bayer, Oruweru, Luteari)</li> <li>• Transparent performance suppliers' network schemes (Miruku, Novo Madal, Olam, and ETG)</li> <li>• Domestic produce supply chain development (KDT and PROP)</li> </ul> | Transport savings in terms of costs of transportation as well as the opportunity costs of time spent traveling are extremely important to smallholder farmers. In the outcome harvest, we were informed that not it was not uncommon to travel over 100km to get the inputs before the CdA Rota Certa routes were running. Travel time from smallholder plots of cotton, maize, soy, guar beans, and nuts to more urban centers can easily take more than 3 hours one way and cost 100 MZN. |
|------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Women's Empowerment

Gender activities were informed by a gender norms in farming, input use, and distribution study conducted in 2018 in Manica Province. Key findings from the study included:

- **There is a gendered division of crops.** Men are more involved in growing and selling staples for commercial purposes, and women are more involved in growing crops for personal consumption and horticultural products for selling at the local market;
- **Flexibility of gender norms relating to input purchase and use varies for different types of inputs.** Gender norms around input purchase and use are more flexible for seeds, less flexible for fertilizers, and least flexible for pesticides;
- **Women are integral to decisions around input purchase and use.** In terms of purchasing inputs, women are more likely to be directly involved in purchasing seeds (particularly ones for horticulture) than other types of inputs. However, women are a vital part of the decision-making process around purchasing all inputs, including agro-chemicals;
- **Norms are changing.** The study noted that things are improving, with a more equitable division of roles in farming between women and men; and
- **If input suppliers intentionally targeted selling to women, they could increase their market by up to 30%.**

Based on these and other findings, FTF INOVA gender activities were predominantly in the input distribution network function, although there were some activities in both supply chain management and support services. At the overall programme level, there was a 37% female participation rate in programme interventions. Specifically, women participated in the following interventions

### Input Distribution Networks

Oruweru and K2 were the two partnerships that had a clear gender lens based on the realities of the market systems in which these two firms operate. With support from FTF INOVA, Oruweru assessed its retail expansion strategy to include the women-farmer customer segment that now involves 11 village-based agents (8 women) and 25 agro-dealers (6 women) in seed distribution to female smallholder producers. Through these new retail channels, Oruweru sold over 5,200 kgs of different varieties of seed (maize seed, soybean, sesame, pigeon pea, cowpea) to women in five districts (Alto Molocue, Meconta, Monapo, Nacarua, Erati, and Chiúre) worth 689,280.00 MZN. Oruweru recognized the financial constraints of their target seed customers, especially female SHFs. To address this, Oruweru partnered with FTF INOVA and introduced their in-house service of **flexible payment terms for customers who prepay before the planting season for a discount**. Oruweru piloted an initiative in the districts of Ribaue and Malema (Nampula province) where the aim was to **target existing female savings groups to stimulate the creation of a female village based agents**

**system and buyers' clubs for seeds** which resulted in the creation of 14 buyers' clubs and agents for improved seeds in those districts, serving 3,725 farmers with improved inputs. As part of the initiative, Oruwera created appropriately sized and attractive packaging with pictures of crops and women-centered images.

K2 also created a network of female VBAs who were assisted by female student interns as part of the junior consultancy probe with UBS. A female VBA from Machipanda managed to create her own micro VBAs who help her to distribute the seed since her client base is continuously growing.

### **Supply Chain Management**

Novo Madal had a business model that increased access to markets for women and youth as entrepreneurs, employees, and input customers.

Novo Madal is committed to improving its relationship with SHFs that grow in and around their property. Novo Madal has established systems to source sesame and nuts from 4,600 SHF, with a target for 60% of the SHFs supplying them to be women.

Ultimately, implementing partners had a strong bearing on the extent of female participation as they had to align to the realities of the market system. For example, ETG noted that they could not increase female participation in the spraying services program due to the onerous nature of the job, which involved carrying a heavy knapsack for extended periods of time. Consequently, most of these spray service providers were men.

Figure 8 Female Workers Preparing Maize for Processing at Winnua



## **Supporting Services**

The UBS and UCM student internship and junior consultancy model created both training and employment opportunities for young female students and recent graduates. Placing girls and youth into retail agribusinesses was a decisive innovation that had measurable results. UBS and UCM partnered with FTF INOVA on an integrated hands-on internship program that resulted in improved curricula and coaching of both female and male student interns. Some of the female interns managed to secure permanent employment with private sector agribusiness as a result of the facilitation work done by FTF INOVA and the universities.

## **Changes in Response to MTR Findings**

The FTF INOVA team and DAI made significant changes in response to key MTR findings. These are detailed below and were confirmed by the evaluation with the relevant stakeholders.

### **Revised MEL plan**

The revised MEL plan included a theory of change that emerged from FTF INOVA learnings over the first two years of implementation.

### **Improved team coordination**

According to Technoserve, data sharing amongst consortium members improved significantly after the MTR. In addition, senior Technoserve managers were now attending the quarterly portfolio review meetings on a regular basis.

### **Partnership Selection process/criteria and other private sector engagement activities**

The MTR recommended that FTF INOVA reflect on several aspects of partnership selection and private sector engagement. FTF INOVA analysis revealed that over 60% of its partners were SMEs and not only large established companies.

### **Output Markets/comprehensive value chain development**

The MTR recommended that FTF INOVA scale up, analyze, and document its work in output markets. FTF INOVA supported successful innovative pilots to strengthen supply chains for SHFs through partnerships with large firms such as ETG and Miruku.

### **Access to finance**

The MTR recommended that FTF INOVA evaluate whether access to finance, including formal finance, was a constraint that required more emphasis in the program. FTF INOVA engaged with FSPs like Hollard and ABSA to assess the extent of financial service provision to smallholder farmers, finding out that formal credit was not available to most farmers and small to medium agro-dealers due to collateral requirements and prohibitive interest rates.

### **Gender integration**

The MTR recommends that FTF INOVA apply its mainstreaming gender strategy uniformly across its portfolio. Based on the findings of the gender norms study, FTF INOVA focused its gender activities on the inputs distribution function, with some activities in supply chain management and supporting services. Ultimately, the private sector partners drove gender participation as they had to align with the realities of the market. Nonetheless, FTF INOVA had a 37% female participation rate across its portfolio of activities, above the set target of 36%.

### **Communication with USAID, Sub-contractors/consortium members and private sector**

The MTR recommended improved communication with USAID; consortium members; and the private sector at large. Post the MTR, FTF INOVA ensured that USAID had the opportunity to actively

participate in Quarterly Portfolio Reviews and had regular weekly calls with USAID and provided a monthly short brief detailing programme activities.

### **External communication**

The MTR recommended that FTF INOVA should produce materials that communicate more effectively to non-specialist/non-MSD practitioners in the private sector and with other actors such as donor networks. FTF INOVA engaged with existing platforms, particularly AgRED and the MSD Network in Mozambique, to share experiences, lessons learned, and collaborative learning and adaptation with the non-MSD practitioner and non-specialist stakeholders.

## **FTF INOVA's COVID 19 Response via the Challenge Fund**

In response to the COVID 19 pandemic which affected the revenue generating capacity of most agribusinesses due to strict lockdown restrictions, FTF INOVA, with additional USAID funding, added a challenge fund activity to provide grant funding to select agribusinesses to cushion them from the negative impacts of the pandemic. To this end, FTF INOVA launched a challenge fund backed by over \$750,000 of USAID funding and issued a call for proposals for innovation that sought to:

- Efficiently manage local food supply chains and assure the quality of goods produced; and
- Improve packaging from farm gate to store shelves.

Proposals were solicited from companies, private sector associations, research institutions and universities with successful applicants receiving between \$30,000 and \$125,000 coupled with technical assistance needed to help get their innovations to market quickly. A total of 49 applications were shortlisted and 10 then proceeded to the next after initial screening. Of the 10 finalists recommended by external evaluators, FTF INOVA funded 8 innovations. The successful projects included soy yogurts and milk processing (So Soja), processing native fruits (Agro Servicos), crop production through hydroponic irrigation and processing (Mutiana), digitalizing supply chain management from farm-to-fork and launching an online marketplace (Winnua), developing an online marketplace that delivers fresh, safe, and quality meats in the Grande-Maputo region (Do Campo), a honey producer improving the quality and efficiency of its honey production through a traceability system (Agrimel), a producer and distributor of vegetables expanding its market and positioning itself for growth (Casa dos Legumes) and an inputs and output trader and mechanization service provider investing in the growth of its horticulture business (Prodeca). This direct-to-consumer model demonstrated the value of sourcing food from local farmers and growers.<sup>68</sup>

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<sup>68</sup> FTF INOVA Final Report, 2017-2022

Figure 9 So Soja Soy Yoghurt Processing in Chimoio



## Knowledge Management

FTF INOVA contributed significantly to MSD discourse both within Mozambique and globally. FTF INOVA participated consistently on the BEAM Exchange platform to showcase activities and share lessons with the global MSD community on USAID funded MSD efforts in Mozambique, through FTF INOVA. FTF INOVA also participated on the USAID Marketlinks platform, showcasing their partnership approach. A detailed summary and interactive links of FTF INOVA's knowledge management work can be found in Annex 4.

### Customer Satisfaction Surveys

In addition to the platforms highlighted above, at the programme intervention level, FTF INOVA conducted several customer satisfaction surveys to solicit feedback on the appreciation and perceived or actual usefulness of its activities from market actors. For example, FTF INOVA conducted a customer satisfaction survey for Miruku, Olam and UBS. FTF INOVA conducted a survey of 52 SHF of maize and soy in Alto Molocue and Monapo districts of Zambezia and Nampula provinces and 121 SHF of cotton in the districts of Lalaua and Ribaue, Nampula province to understand the changes and satisfaction with the supplier club initiative. FTF INOVA also conducted a customer satisfaction survey for Adicional (PROP) and UBS of aggregators who worked with Adicional, producers who buy agricultural inputs from CdA's Rota Certa agro-dealers and buyers of vegetables.

## Lessons Learnt

Valuable lessons have been learnt over the 5 years FTF INOVA. Key lessons noted by the evaluation are detailed below.

## Systemic Change

- The pace of adoption and replication of market system probe is dependent on the maturity and sophistication of market system actors and the wider agricultural system within which they operate. This ties in with the view from stakeholders of extending the timeframe of agricultural MSD programs in Mozambique, given the low maturity of the sector:
  - For example, large agribusiness companies noted that most agro-dealers are “behind the counter” and do not go to the field or establish demonstration plots to create loyalty between themselves and the farmers and this limits their ability to be effective partners for them. Loyalty in this case is based on farmers seeing the commitment of the agro-dealer through demo plot establishment within their locality, but also seeing the efficacy of the agro-dealer’s products, which increases not only loyalty to the brand, but to the agro-dealer as well.
- Tied to the lesson above, the pace of replication is also dependent on the effective demand in the system i.e. a system can only support as many private sector actors as the effective demand enables them to run profitable businesses. Therefore, demand creation activities are necessary in a market like Mozambique where effective demand is low both for inputs and supporting services.
- System change in the agricultural inputs sector evolved from simply having more participants to deepening the tools for outreach and making the businesses more efficient and profitable (like the Rota Certa, use of VBAs to reach farmers directly for orders, and catalogue ordering).
- There is real value in attracting new nontraditional supporting service providers like Tangerine (private marketing firm) and universities to engage more in agriculture as this helps to speed the strengthening of the agricultural sector. Attracting services for ag sector has added value to the performance of the core market systems (input distribution and the supply chain). Service providers added into their portfolio the agricultural sector which was not seen as a profitable area to invest, provided services that did not exist, improved efficiency in logistics and supply chain and tailored services for targeted low income segments. Training modules that are flexible and accessible to agro-dealers, SHFs and agribusiness were also developed.
- System wide cross cutting interventions, which focus on supporting systems, enhance the ability of smallholder farmers to adapt to market and climatic changes in the environment around them. This makes them better suited to achieving sustainable systemic change than value chain specific initiatives, which are important, but have a much narrower focus.
- When farmers see commitments from buyers to acquire their products, it improves trust which makes farmers eager to upgrade, expand and establish relationships.
  - FTF INOVA sought ways to promote mutually beneficial relationships between output buyers and SHF agricultural produce suppliers, using transparent performance suppliers’ network schemes.
  - FTF INOVA portfolio managers noted that “suppliers’ clubs were the flagship activity of our programme working with OLAM, Miruku, ETG and Nova Madal because we addressed the problem of trust and loyalty between buyers and farmers.”
- The length of MSD programs is a key determinant of the extent of systemic change achievable. FTF INOVA portfolio managers noted that, “if the programme had continued for one more year, we believe that the interventions with Ka da Terra, UBS and Nova Madal would have achieved systemic change and influenced wider change in the market system.”

## Project Design and Implementation

- FTF INOVA showed that it is necessary to invest time and resources in multiple probes to identify gaps in knowledge, which can then lead to the design of better interventions/business models. A key example here was the OLAM-Isolmoc probe, which led to an improved design of the ETG-Miruku model;

- Co-creating (design, implement, monitor, learn) with key market actors in agricultural system was pivotal to FTF INOVA's success and building ownership by the private sector. The co-creation approach improved or created the capacity of the market actors in developing innovative solutions for existing challenges;
  - FTF INOVA's partnership facility encouraged innovation from the private sector and deal notes were more flexible / appropriate than subcontracts/ grants in many cases allowing the partners to lead on implementation;
- Where feasible, constant engagement with Government is required to reduce the distortionary impacts of large direct delivery type programs like SUSTENTA which have the potential to undercut the efforts of private sector led initiatives like FTF INOVA;
- Donors should explore ways of advancing credit to SHFs and agro-dealers, or work with banks or MFIs to develop products backed by donor funds to advance production credit to farmers
  - In exceptional circumstances, smart subsidies can be implemented when market distortions are minimum. FTF INOVA trialled a hidden subsidy with Ecotri which did not advance because Ecotri opted to supply motorcycles to Sustenta and therefore did not see value in the FTF INOVA proposal in the short term. However, there is potential of this approach, in the absence of direct delivery market distortions;
- Large agribusinesses noted that they have to extend input credit to farmers constantly to secure production and this is not their core business. In the absence or limited access to formal finance market, the supply chain finance has proven to be suitable for the environment where the clients are not bankable. Development programs must be sensitive to the realities of gender dynamics within the household and market system before advocating for gender parity in some areas. For instance, no women wanted to take up the spraying provider opportunity because the work is laborious and suited for men in their view;
- Business models for women participation increased access to markets for women as entrepreneurs, employees, and input customers. However, the integration of such models within the agribusiness should make business sense for them while observing the norms and networks that influence how market actors currently operate and what / who drives innovation to avoid unintended consequences; and
- The shift in terms of incentives and rewards offered to SHF who produce more and of better quality (as predetermined by output buyers) is encouraging. Transparent terms and an intent to purchase communicated by output buyers at the start of the season, have motivated commitment to increased productivity by SHF, even during the challenges posed by COVID-19.

### Private Sector Participation

- Critics were of the view that USAID support to private sector actors in a thin market like Mozambique could create monopolies in some market systems. However, the lesson from FTF INOVA is that using the MSD approach facilitated investment into certain areas, and made certain not to erect entry barriers to support monopolistic behavior;
- When incentives align, the private sector is ready to invest in new approaches that are geared towards (commercially) serving smallholder farmers. CdA's Rota Certa and ETG's spraying services-aggregator models are two such examples;
- Co-investment in interventions by the private sector is critical to open information sharing and learning. FTF INOVA's COVID grants did not require a match, which limited the grantees willingness to share information and progress; meanwhile FTF INOVA's MSD Facility required contributions and established a much stronger partnership, enhancing learning and adaptation; and
- Getting the private firms to appreciate and value of feedback from farmers about their interventions enhanced their ability to develop customer-centric products and services.

## Monitoring, Evaluation, Learning, and Adaptation

- Numerous output indicators can be overwhelming for an MSD programme, given the need to also collect significant qualitative data to track outcome level changes which are not readily captured by the quantitative indicators;
  - FTF INOVA MEL staff noted that the more indicators there are to report on, the more the team focuses on outputs to the detriment of outcome level focus which is more important for an MSD programme; and
- USAID's encouragement of the flexible Probe-Measure-Learn-Adapt MEL approach, where the measurement was real-time with the probe, meant that FTF INOVA had the ability to adapt and scale where there was traction. This gave FTF INOVA room to experiment (probe) and not necessarily prove a TOC upfront, but rather challenged the programme to reflect on the portfolio and learn with USAID and other partners;
  - For example, FTF INOVA's use of a quarterly review process allowed the project to determine which probes were failing and which were working and quickly terminated/adapted the failing ones.

## Behavior Change

- Market actors respond to both financial and non-financial incentives. For example, clients responded to recognition and prestige incentives such as the title of best farmer or best agro-dealer; and
- MSD programs like FTF INOVA can facilitate behavior change where incentives and rewards are clear, for example some private sector partners highlighted that co-investment with a donor funded project was a major paradigm shift for them.

## Coordination

- Donor coordination, both amongst different donors and especially the same donor but different or follow-on programs, is a must if sustainable systemic change is going to be achieved because of the need for continuity
  - Some portfolio managers noted that SHFs were receiving different extension advice on the same issues from multiple programs.

# Recommendations

Below we detail recommendations from the evaluation for consideration by USAID, implementers and the wider MSD community.

- **USAID and other donors in Mozambique should entrench the facilitation approach via the private sector to maintain the momentum started under programs like FTF INOVA and FTF INOVAGRO.** Direct delivery interventions, where necessary, should be targeted and short term to overcome specific market failures
  - Almost all private sector companies interviewed during the evaluation cited the giving of free inputs or services to SHFs as one impediment to private sector development; and
  - The Probe-Measure-Learn-Adapt model has been very effective at uncovering binding constraints and building private sector buy-in to invest to overcome them;
- **Follow on USAID programs should consider activities that assist agro-dealers to be “bank ready” as there are significant costs associated with developing business plans as well as going through the justification process required in lieu of collateral**

- “As private sector we do not expect to be given money or infrastructure for free but rather prefer the development partners to coordinate with banks to lower the cost of borrowing for the private sector, for example by providing bank guarantees”<sup>69</sup>, and
- For example, Chaora commercial reported that they lost USD500 in an application process to GAPI for output buying finance which was eventually declined due to lack of collateral.
- **Continuity of support for market system actors is crucial to help them reach the tipping point.** For example, agro-dealers supported to move to a certain level by FTF INOVA should be supported by subsequent programs to reach their “tipping” point beyond which they do not require external support;
  - The CdA experience is a good example of where this has worked well. CdA reported that with USAID support on a programme implemented by Fintrac, they established their first 3 hubs/shops which grew to 14 without external support. Under FTF INOVA, they built on this initial progress by creating tools for the agro-dealers to increase their sales and make the network profitable;
- **USAID should consider extending the length of market systems development programs beyond 5 years.**
  - A large agribusiness noted that 20 years ago, there was no sesame seed production in Mozambique, but now the company is producing locally, but this has been a long process. In that vein, a 3 or 5 year MSD programme is too short to facilitate the required systemic changes<sup>70</sup>;
  - In this vein, FTF INOVA portfolio managers also noted that, “short term MSD programming implies that we focus on the same established companies so that we meet our indicators within the timeframe, and not necessarily seek systemic change.”
- **If USAID cannot extend one programme beyond five years, an alternative is a continuity plan across two programs.** For example, USAID should ensure that PREMIER identifies and builds on the most successful interventions from FTF INOVA so that momentum is not lost;
  - Ideally, incoming should be presented with either the final project report or the final evaluation report and design their interventions in line with level of adoption/adaption/expansion/replication of the preceding project;
- **USAID should consider funding an agribusiness private sector partner mapping which will identify private sector companies that have benefited from past and present USAID programs,** and if possible, from other donors active in the agricultural sector in Mozambique.
  - This will help implementers in partner selection and activity design with specific partners on subsequent programs. For example CdA highlighted the support they received from the USAID funded Feed the Future Partnering for Innovation programme implemented by Fintrac and how this support was then leveraged by FTF INOVA. Understanding the type of financial support received by private sector partners through other USAID and non- USAID development programs will ensure alignment of activities and avoid duplicating what has been tried before with the same partner;
- **USAID should leverage FTF INOVA’s successes to move the needle further on market system change (see Figure 1) either through replication, scaling, or piloting in new areas.** Most of FTF INOVA’s interventions have been in the adopt and adapt

<sup>69</sup> Feedback from an agro-dealer in Chimoio

<sup>70</sup> Discussion with Export Trading Group (ETG)

quadrants of the AAER framework so subsequent programs must move these systems to the expand and replication quadrants;<sup>71</sup>

- **In terms of access to finance, USAID should support community level interventions such as Fundo Agricola<sup>72</sup> or local savings (VSLA) groups dedicated to agriculture**
  - Prepayment methods with agro-dealers, through savings programs, could lock in the prices and guarantee access to inputs;
- **Structured supplier led finance, based on buyer knowledge and screening of farmers, will enhance repayment rates**
  - Formal financial institutions believe that lending to the agricultural sector is very risky and not high priority for them. Structured finance services led by output buyers where agribusinesses set criteria for which SHF could receive credit (such as through supplier clubs) were effective in ensuring higher repayment.
- **Private sector actors encouraged USAID to consider channeling significant resources to systemic extension capacity development, especially public sector extension given its extent of coverage (SDAE).** This should ideally start from curriculum development at training colleges
  - For example, smallholder maize farmers are still producing 1-2.5 ton/ha against a K2 seed yield potential of 10 ton/ha. In addition, SDAE extension officer to farmer ratio is too high to be effective. Private sector companies reported that direct delivery NGOs/donor funded programs also have extension staff, but they only focus on project participants in certain areas and their support is temporary hence the need for a long term public sector driven solution;
  - That said, implementers noted that whilst SDAEs were the vehicle to engage, it is key to highlight that at district SDAEs represent a conglomeration of Ministries, not just agriculture, so their attention and resources are constrained. This should be taken note of in subsequent programme designs.
- **USAID must provide MSD programs adequate flexibility to respond to changing market circumstances.** Key implementing partner staff noted that the mechanism of “cost plus fixed fee” was ideal under FTF INOVA as it afforded the necessary flexibility required by an MSD programme;
  - For instance, K2 halved its staff complement midway through the FTF INOVA partnership resulting in the loss of field based technicians who were delivering extensions services to smallholder farmers and agro-dealers. This necessitated a change of approach by both K2 and FTF INOVA.
- **USAID should consider supporting a programme or activity with Government to enforce/control the quality of inputs given the proliferation of fake seed and chemicals on the market.** Farmers who have fallen victim to fake inputs spread the word and this discourages wider uptake of genuine inputs; and
- **USAID should consider supporting industry associations as they are key advocacy and lobbying actors capable of influencing systemic changes in the political economy**
  - FTF INOVA’s dissemination efforts with partners to share how to implement these successful innovations, results, and lessons learned have already influenced notably the change of standards and rules in some business associations like Mozambican Cotton Association and AICAJU.

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<sup>71</sup> <https://practicalaction.org/pmsd-toolkit/tools/aaer/>

<sup>72</sup> <https://beamexchange.org/resources/1359/>

## Conclusions

FTF INOVA's bold decision to transition from a value chain focused approach to a market systems focus in 2018, in pursuit of sustainable higher incomes and livelihoods for Mozambique's smallholder rural families, has enabled it to try out numerous pilot ideas through its probe, learn and adapt model. Operating in a context where most potential partners were used to receiving grants from development programs, FTF INOVA's "light touch" facilitation approach was initially met with skepticism. Traction increased around Year 3, especially with more private and public sector companies and institutions coming on board under the supply chain management and support services functions. It also helped that FTF INOVA was funded by USAID-the largest bilateral donor in Mozambique-so naturally other development stakeholders took note of this "new" approach to supporting smallholder farmer development in Mozambique.

The majority of private sector actors interviewed during this evaluation acknowledge that the **MSD facilitation approach is the way to go if sustainable agricultural development is to be achieved**. However, this is not a generally accepted position, and evidence from FTF INOVA and other MSD programs such as the SDC funded FTF INOVAGRO need to be showcased to promote greater awareness and acceptance of the facilitation approach. There have been numerous development programs over the past twenty years in the country, and to date, the sustainability element has been elusive, with the same interventions being repeated time and again in subsequent programs. FTF INOVA's approach of supporting permanent market actors to better perform their functions without external support offers hope for sustainable donor led interventions. **Indeed, where MSD interventions are successful, donor support should not be required in the medium to long term.**

Whilst there is no doubt about the approach, a few stakeholders questioned whether Mozambique's agricultural sector was mature enough for a "full scale facilitation approach such as MSD." The view here was that donors must find a balance between direct delivery and facilitation, providing basic inputs and services to the marginalized whilst at the same time supporting the systems that surround them for long term sustainability. The evaluation took the view that facilitation must take precedence, as the evidence over the past twenty years of direct delivery has not been outstanding. There is a place in the agricultural sector for livelihoods type projects, but these must not be implemented under a market systems development program such as FTF INOVA. The sooner market actors learn to perform independently, the sooner the agricultural sector in Mozambique starts to sustain itself.

FTF INOVA also played an important role for USAID and other donors in providing the necessary evidence to support the MSD agenda in Mozambique. The combination of its unique focus on the application of market systems approaches to smallholder farmer development, its ability to leverage USAID's reputation, and its knowledge management agenda made it a valuable source of information about how a smallholder agricultural development can be pursued using systemic approaches and how the systemic changes thereof can be measured.

Given the foregoing, it the evaluation's considered view that USAID must strengthen its MSD work in the agricultural sector in Mozambique, specifically building on the momentum built by FTF INOVA. New MSD programs must be directed to continue working with those FTF INOVA interventions that have the potential for replication and scale up, as opposed to seeking new partners in an effort to differentiate themselves from FTF INOVA, which is a common practice amongst implementers. If anything, USAID must compel new programs to develop a strategy on how they will move FTF INOVA supported interventions/partnerships across the market system development continuum to achieve scale and sustainability.

# Annexure 1 Performance Indicators

The table below is extracted from the Draft Final Report (2017-2022) and shows FTF INOVA performance indicators from 2017 to 2022

| Number    | Indicator                                                                                                                                         | FY 2018 | FY 2019                                     | FY 2020                                 | FY 2021                                 | Q1 FY 2022                              | As of FY 2021<br>Cumulative<br>Achieved |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| GNDR-2    | Percentage of female participants in USG-assisted programs designed to increase access to productive economic resources                           | N/A     | 33%<br>280 females / 851 total participants | 28%<br>1,792 females 6,387 participants | 37%<br>1,997 females/5,440 participants | 37%<br>2,046 female/5,464 participants  | 37%<br>2776 females/7570 participants   |
| YOUTH-3   | Percentage of participants in USG-assisted programs designed to increase access to productive economic resources who are youth (15-29) [IM-level] | N/A     | 20%<br>169 youth/ 851 total participants    | 15%<br>965 youth 6,397 participants     | 20%<br>1,093 youth/5,455 participants   | 23%<br>1,233 youth / 5,464 participants | 28%<br>1064 youth/3821 participants     |
| EG.3.1-14 | Value of new USG commitments and private sector investment leveraged by the USG to support food security and nutrition [IM-level]                 | N/A     | \$1,227,242                                 | \$3,063,462                             | \$769,755                               | \$71,323                                | \$5,131,782                             |
| EG.3-2    | Number of individuals participating in USG food security programs.                                                                                | N/A     | 19,132                                      | 24,289                                  | 116,561                                 | 60,699                                  | 157,301                                 |
| EG.3.2-24 | Number of individuals in the agriculture system who have applied improved management practices or technologies with USG assistance                | 3,789   | 13,713                                      | 22,291                                  | 68,852                                  | 56,892                                  | 108,160                                 |
| EG.3.2-25 | Number of hectares of land under improved technologies or management practices with USG assistance                                                | 2,215   | 16,867                                      | 23,322                                  | 58,131                                  | 30,625                                  | 58,131                                  |

| Number              | Indicator                                                                                          | FY 2018 | FY 2019      | FY 2020      | FY 2021     | Q1 FY 2022  | As of FY 2021<br>Cumulative<br>Achieved |
|---------------------|----------------------------------------------------------------------------------------------------|---------|--------------|--------------|-------------|-------------|-----------------------------------------|
| EG.3.2-26           | Value of annual sales of farms and firms receiving USG assistance [IM-level] - Value               | N/A     | \$28,934,173 | \$17,212,229 | \$9,746,235 | \$1,583,440 | \$57,476,077                            |
| EG.3.2-27           | Value of agriculture-related financing accessed as a result of USG assistance [IM-level]           | N/A     | \$210,650    | \$6,445,901  | \$680,799   | \$0         | \$7,337,350                             |
| Custom Indicator #3 | Number of farmers who have a new/improved commercial relationship with partner firms               | N/A     | N/A          | 15,850       | 65,442      | 90,403      | 150,991                                 |
| Custom Indicator #4 | Number of FTF Inova partner firms who have new/ improved commercial relationships with other firms | 69      | 28           | 54           | 88          | 3           | 242                                     |

## Annexure 2 Summary Intervention Table

|   | Partner            | Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | UBS                | FTF INOVA worked in partnership with UBS to co-invest in support universities to establish more linkages with agriculture actors to deliver junior consultancy services through internships). FTF INOVA co financed a pilot project in which UBS students provided support and consultancy to AGRDs, providing different types of technical knowledge and assistance FTF INOVA was also active in raising awareness among AGRDs regarding the importance of expanding to last mile through networking with VBAs to reach more local farmers.                                                                                                              |
| 2 | ORUWERA            | Focus under FTF INOVA was to supply improved seeds to women via a new distribution channel of women's associations/groups/savings groups working in Ribaue and Malema. This was done through the creation of 3 subgroups in the savings fund namely, (i) the agricultural fund (Fundo Agricola) to buy ORUWERA seeds; (ii) Loan Fund and (iii) the insurance fund                                                                                                                                                                                                                                                                                         |
| 3 | ECA                | With FTF INOVA facilitation, ECA established a partnership with Novatech to increase farmer and producer access to agricultural inputs in Barue. NovaTech sells inputs and provides extension services and ECA purchases, processes and markets maize and its by-products.                                                                                                                                                                                                                                                                                                                                                                                |
| 4 | ETG                | In the cashew value chain, the problem was that the market did not consider raw cashew nut quality standards, so all raw cashew nuts were purchased at the same price, which discourages producers from investing in production quality. Under FTF INOVA, ETG contracted spraying services available to farmers to guarantee the quality of their cashews delivered to ETG. FTF INOVA co-financed the innovation as a way of minimizing risk or sharing the risk in implementing the spray service providers/product aggregators initiative with incentives and awards to best spray service providers and best producers/suppliers of quality raw cashew |
| 5 | BAYER              | Under FTF INOVA, Bayer was rethinking its distribution network since the company had been working with one distributor all along which made it difficult for agro-dealers to access Bayer products. To develop its own distribution network, Bayer promoted 13 large agro-dealers through which the company's products could be sold to smaller agro-dealers and retailers.                                                                                                                                                                                                                                                                               |
| 6 | APPLOAD            | The Appload platform facilitated the link between market actors and transporters by identifying the location of transporters as well as cargo destinations. To date, Appload has registered 100 clients and almost 300 transporters (with an average of ten trucks per transporter, or 3,000 trucks) to its platform. Because of its success with more formal transporter networks, FTF INOVA is supporting Appload to also engage with smaller informal transporters at the district level to register them to the platform, which will help these smaller transporters offer more efficient services                                                    |
| 7 | CASA DE AGRICULTOR | FTF INOVA facilitated an input supply and distribution route initiative with CdA to increase smallholder farmer access to quality inputs. FTF INOVA worked in partnership with CdA to co-invest in establishing a regular and pre-order inputs distribution model called Rota Certa through CdA's network of 53 agro-dealers in Nampula.                                                                                                                                                                                                                                                                                                                  |
| 8 | K2                 | FTF INOVA worked in partnership with Klein Karoo (K2) to co-invest in establishing a pre ordering system via the Village Based Agent (VBA) micro distribution model. FTF INOVA supported the intervention through provision of technical assistance on the introduction of new tactics to address K2's vision in the form of training and interns that assisted to pilot the pre-order distribution model via VBAs.                                                                                                                                                                                                                                       |

|    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9  | ECOTRI           | FTF INOVA partnered with Ecotri, a motor vehicle company that specializes in motorized tricycles, to devise strategies to offer local enterprises (like agro-dealers and potential aggregators) access to affordable vehicles. As a result of the partnership, Ecotri has expanded their presence beyond Nampula and Zambezia provinces into Manica province. In Manica, they established an agreement with a microfinance institution to purchase tricycles for agro-dealers and farmers.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10 | KA DA TERRA      | The problem in the system was that there was no appreciation of quality domestic produce to meet the country's internal demands, due to a lack of connection between different actors in the supply chain process, as producers, aggregators, retailers and distributors, high costs of transport and lack of quality certification. FTF INOVA supported this intervention through the identification of potential suppliers and testing backhauling transport system to reduce transaction costs. FTF INOVA also facilitated the assessment of the presence of Mozambican-grown products in urban formal retailers and consumer response to these products.                                                                                                                                                                                                                                                                                     |
| 11 | LUTEARI          | Luteari was the first partner to adopt commission-based pricing with 8 VBAs in 2019 in the district of Gondola and has since increased the number to 40. During the year under review, they have expanded the use of this pricing strategy with more agents in Nhamatanda and Gorongosa, where they are working with 10 VBAs in each location. Luteari's stated objective of moving to a commission-based system is to push VBAs to generate volumes, by controlling the retail prices to affordable levels. Pushing Luteari's and the agents' revenue up (as opposed to mark-ups). Luteari doesn't pay commissions directly but offers a 10% discount to their agents and a recommended price list. All Luteari agents, regardless of region, offer the same retail sale price to farmers. Luteari, who initially piloted a small distribution network of 8 VBAs, has now expanded the network to 40. These VBAs reach more than 8,000 farmers. |
| 12 | CHAORA COMERCIAL | Chaora, an agro-dealer based in Gondola district., is expanding CdA's delivery system further into the last mile, one of the sixteen second movers that begun replicating and adapting this go-to-market approach to a pull distribution system (based on orders) that was initiated by CdA, K2 and Luteari, by serving 5 communities in the communities of Cafumpe, Sanga, Mudima and Chiongo, located in the peripheries of the district of Gondola at a maximum of 60 kms from the district town. and has engaged 5 agents for consolidation of orders and provision of extension services. To support this tactic, Chaora has invested in a technical member of staff to both expand and ensure that the innovation effectively targets farmers. Additionally, a radio program was developed to broadcast Chaora's services and products to the neighboring communities of Gondola.                                                          |
| 13 | SOSOJA           | For So Soja, a small soya yogurt producer in Chimoio, COVID had a drastic effect. Challenge funds enabled the company to re-vamp its capacity to maintain production and increase shelf life to capitalize on new market opportunities beyond its base where availability of healthy products was weak. So Soja's yogurt was popular, attracting scores of new buyers previously skeptical of non-dairy yogurt. They also won contracts to supply to schools and government institutions. As a result, So Soja has introduced new products in the informal (BoP) market with competitive prices, acquired distribution equipment including refrigerated truck, mobile cooler boxes, medium-sized branded refrigerators placed in different selling points including canteens, kiosks; increased the shelf life of the yogurts from 1 to 3 months                                                                                                 |
| 14 | MUTIANA          | Mutiana, a local women-owned business, used Challenge Fund support to increase its production of locally sourced products – doubling its production capacity and promoting out grower schemes to be able to supply the market all year. This support enabled Mutiana to improve its marketing strategy, leading to a 40% increase in online sales. A new cold-room meant Mutiana could store perishables and reduce food waste, which allowed women to sell when market prices were higher. Mutiana                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|    |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                                                                                     | attracted ten new suppliers to join its suppliers' clubs and paid to train them on standards to meet buyer requirements in Grand Maputo, benefitting more than 30,000 consumers in the capital.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15 | MIRUKU                                                                              | Miruku Agro buys, processes and sells agricultural products, especially maize and soya beans. FTF INOVA supported Miruku to develop and implement a transparent performance management mechanism using supplier clubs to increase farmer quality production, trust, and loyalty, reducing side-selling. FTF INOVA provided technical assistance in designing the new supply chain management mechanism and co-invested in key elements of the model.                                                                                                                                                                                         |
| 16 | ADICIONAL                                                                           | FTF INOVA partnered with Adicional logistics company to pilot an innovative distribution model that combines direct links with farmers' contacts and a crop aggregation function that supplies horticulture products to identified retailers in Nampula using the available backhaul capacity from CdA input distribution, Rota Certa.                                                                                                                                                                                                                                                                                                       |
| 17 | WINNUA                                                                              | Agricultural commodities from Mozambique have been constrained by low quality and standards and struggle to penetrate in potential local and international markets due a need for food safety standards. To address this challenge FTF INOVA partnered with Winnua to monitor and track its supply chain through a traceability system of cereals (maize and soya) to comply with food security requirements. As Winnua is in the process of establishing a HACCP system and the quality of their raw material is crucial, it needs to create a supply value chain and manage it to create a win-win both for Winnua and its 1,020 suppliers |
| 18 | AGRIMEL                                                                             | Similar to the Winnua initiative, FTF INOVA partnered with AgriMel, a company dedicated to developing sustainable honey production in various communities throughout Zambezia province, to develop a traceability system whereby the customer will be able to know which beekeeper or apiary from which project produces the honey in the bottle.                                                                                                                                                                                                                                                                                            |
| 19 | DO CAMPO                                                                            | FTF INOVA partner with DoCampo, Lda, a local company in the chicken value chain, to support the company's investment in the establishment of an online marketplace, a one-stop-shop, that delivers fresh, safe, and quality meats in the Grande-Maputo region and introducing a supply management system based on a zero inventory and farm-to-fork model. For a better management of the supply chain, Do Campo is establishing an in-growers system and packaging users that traces products every step – from farm, to slaughter, to delivery, to fridge.                                                                                 |
| 20 | OLAM                                                                                | FTF INOVA facilitated a linkage between Olam (an input distributor), Bayer (a multinational CPP provider), and its local distributor, Isolmoc, to test the viability of a new commercial spraying service to raise the productivity of Olam's cotton growers. In 2019, Isolmoc employed 97 trained spray service providers (SSP) to service 2,337 cotton farmers and spray 2,020 hectares of cotton                                                                                                                                                                                                                                          |
| 21 | NGALA INVESTIMENTOS                                                                 | Similar to the OLAM initiative, in 2020, FTF INOVA also supported Ngala Investimentos, an input supply and service provider firm, to improve the SSP for cashew trees, using 16 SSPs provided cashew spraying services to a segmented client base of 432 cashew farmer customers with an average of 23 cashew trees each                                                                                                                                                                                                                                                                                                                     |
| 22 | CASA do AGRICULTOR, K2, CANTINA 2001, ORUWERA, NovaTech, AIPM, PHOENIX SEEDS, BAYER | In partnership with FTF INOVA, eight firms (CdA, K2, Cantina 2001, Oruwerera, NovaTech, AIPM, Phoenix Seeds, and Bayer) introduced customer-centric innovations to make their products and services more attractive and more responsive to customer demand, particularly smallholder farmers                                                                                                                                                                                                                                                                                                                                                 |
| 23 | UNILURIO BUSINESS SCHOOL(UBS), INSTITUTO                                            | In 2019, FTF INOVA engaged with UniLurio Business School (UBS), Instituto Superior Politécnico de Manica (ISPM), and the economics department of Catholic University of Mozambique (UCM) to develop curricula for university students to provide more highly skilled managers for agribusinesses. In 2020, UBS and UCM created internship programs for their agribusiness                                                                                                                                                                                                                                                                    |

|    |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | SUPERIOR POLITECNICO de MANICA (ISPM) | students. Twenty interns worked with 10 agrodealers and wholesalers to upgrade their product offerings. In addition, ISPM placed five interns to assist K2's agrodealers and FTF INOVA with monitoring and evaluation. The internship programs showed agribusinesses the value of employing people with strong business skills, and allowed the students to gain expertise and experience in the sector                                                                                                                                                                                                                                                                            |
| 24 | TANGERINE                             | FTF INOVA partnered with a marketing and branding firm, Tangerine, to offer communication and branding services to help input distribution companies adopt and grow business strategies that are key for their growth. Tangerine invested in Cultiva, a platform that gives input suppliers access to real-time data on their brand presence and competitor activity for different levels of customer segments. During a 3-month pilot, Tangerine pitched this platform to ten input companies and attracted four companies (K2, Phoenix, Syngenta, and Fepro) to use it, resulting in between 400 and 520 agro-dealers profiled and benefiting from improved merchandising skills |
| 25 | XR GLOBAL                             | To increase the use of ICT in agriculture, FTF INOVA worked with XR Global, a company that designs virtual trainings, to develop a training program that promotes the use of ICT by agro-dealers to improve stock orders, track sales, and manage cash flow. In partnership with Bayer, XR Global promoted the training (with support from 31 interns) to 14 agro-dealers serving a total of 1,820 farmers. As a result, agriculture sector firms are recognizing the rural markets as a potential and viable space to use ICT platforms and are increasingly building relationships with ICT service providers                                                                    |
| 26 | APROSE                                | FTF INOVA partnered with APROSE to give farmers a voice in the seed sector. APROSE held the Customer's Choice Best Seed Company Awards, a competition that enabled more than 4,000 individuals to give targeted feedback on seed quality. Participants voted via unstructured supplementary service data (USSD), mobile communications like text messages, on the quality of seeds provided by manufacturers. The establishment of this award competition will help seed companies prioritize customer satisfaction in their products                                                                                                                                              |
| 27 | RADIO CATANDICA, RADIO SUSSUNDENGA    | In 2018, FTF INOVA supported two community radio stations (Radio Catandica and Radio Sussundenga) in Manica Province to pilot the Community Radio Forums. The forums received excellent reviews, generating considerable interest from smallholder farmers in the communities. The forums reached nearly 4,500 people, and 33 listeners won prizes from competitions on the forums. As a result of these successful broadcasts, thirteen new and interested community radio stations (seven in Manica Province and eight in Nampula Province) requested the FTF INOVA expand this program to their audiences.                                                                      |
| 28 | RADIO SIRT                            | To further strengthen the capacity of community radios, FTF INOVA sponsored a media-led agricultural fair hosted by Radio SIRT, in partnership with the Manica Provincial Department of Agriculture and Food Security. The agricultural fair was designed to improve access to inputs for farmers and showcase commercial agricultural products and services offered on the radio by private sector companies                                                                                                                                                                                                                                                                      |
|    |                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Annexure 3 Budget Expenditure

| <b>Cost Element</b>                   | <b>Year 1<br/>(Actuals,<br/>2/22/2017-<br/>2/28/2018)</b> | <b>Year 2<br/>(Actuals,<br/>3/1/2018-<br/>2/28/2019)</b> | <b>Year 3<br/>(Actuals,<br/>3/1/2019-<br/>2/28/2020)</b> | <b>Year 4<br/>(Actuals,<br/>3/1/2020-<br/>2/28/2021)</b> | <b>Year 5<br/>(Actuals,<br/>3/1/2021-<br/>12/31/2021)</b> | <b>Total<br/>Expenditures</b> |
|---------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------|-------------------------------|
| Salaries, Wages,<br>and Consultants   | \$587,504.79                                              | \$718,996.09                                             | \$695,717.53                                             | \$520,046.16                                             | \$283,368.66                                              | \$2,805,633.23                |
| Other Direct<br>Costs                 | \$1,651,458.56                                            | \$2,828,311.77                                           | \$3,447,615.83                                           | \$2,509,430.07                                           | \$1,772,315.47                                            | \$12,209,131.70               |
| Indirect Costs                        | \$841,199.46                                              | \$899,529.90                                             | \$850,549.94                                             | \$671,618.45                                             | \$374,702.24                                              | \$3,637,599.99                |
| Grants Under<br>Contract              |                                                           | \$0.00                                                   | \$0.00                                                   | \$96,682.85                                              | \$262,624.68                                              | \$359,307.53                  |
| Total Estimated<br>Cost               | \$3,080,163.00                                            | \$4,446,838.00                                           | \$4,993,883.00                                           | \$3,797,778.00                                           | \$2,693,011.00                                            | \$19,011,673.00               |
| Total Fixed Fee                       | \$172,377.00                                              | \$240,920.00                                             | \$323,987.00                                             | \$244,525.00                                             | \$0.00                                                    | \$981,809.00                  |
| <b>Total Cost &amp;<br/>Fixed Fee</b> | <b>\$3,252,540.00</b>                                     | <b>\$4,687,758.00</b>                                    | <b>\$5,317,870.00</b>                                    | <b>\$4,042,303.00</b>                                    | <b>\$2,693,011.00</b>                                     | <b>\$19,993,482.00</b>        |

# Annexure 4 FTF INOVA Knowledge Management Record

## **Blogs published & presentations made**

DAI website description and video:

[https://www.dai.com/our-work/projects/mozambique-feed-the-future-agricultural-innovations-FTF INOVA-project-description](https://www.dai.com/our-work/projects/mozambique-feed-the-future-agricultural-innovations-FTF-INOVA-project-description)

FTF INOVA BEAM Exchange profile that has more detailed stuff and the briefers on different interventions; better selection than DAI website :

<https://beamexchange.org/practice/programme-index/246/>

Sarah Wall's blog on learning in start-up from 22 Mar 2018: Managing learning:

<https://www.marketlinks.org/post/market-systems-start-learning-innovation>

FTF newsletter article 28 Mar 2019 on community radio fora with Sussundenga and the K2 seed issue:

<https://medium.com/@FeedtheFuture/radios-help-businesses-reach-smallholder-farmers-ad64dd560625>

MEL post on prove/improve (evidence-based decision-making) and gathering data on business performance (25 Sept 2018):

<https://www.marketlinks.org/post/prove-and-improve-adapting-monitoring-evaluation-and-learning-mel-better-support-business>

Agrilinks newsletter from May 2019:

<https://www.agrilinks.org/post/leveraging-gender-norms-and-private-sector-partnerships-increase-womens-use-agricultural-inputs>

Blog post at MarketLinks on November 2019: Working with the Private Sector for Systemic Change: What Has (and Hasn't) Our Partnership Facility Done for Us?

<https://www.marketlinks.org/post/working-private-sector-systemic-change-what-can-good-partnership-facility-do-msd-program>

Dan's Partnerships on MarketLinks:

<https://www.marketlinks.org/post/working-private-sector-systemic-change-why-build-partnership-facility-first-place>

<https://www.marketlinks.org/post/working-private-sector-systemic-change-how-do-we-do-partnerships-practice>

<https://www.marketlinks.org/post/working-private-sector-systemic-change-what-has-and-hasnt-our-partnership-facility-done-us-1>

<https://www.marketlinks.org/post/working-private-sector-systemic-change-what-can-good-partnership-facility-do-msd-program>

Luca's Nov 2019 webinar: [MarketLinks webinar: view here](#).

Blog post: Partnering With The Private Sector to Solve Complex Problems: The Case of Farmer Clubs in Mozambique (MarketLinks, February 6, 2021):

<https://www.marketlinks.org/blogs/partnering-private-sector-solve-complex-problems-case-farmer-clubs-mozambique>

Blog post: Partnering With The Private Sector to Solve Complex Problems: Some Observations About PSE in Thin Markets (MarketLinks, February 6, 2021):

<https://www.marketlinks.org/blogs/partnering-private-sector-solve-complex-problems-some-observations-about-pse-thin-markets>

PSE Article on suppliers clubs (Olam & Miruku):

<https://usaid-pse.exposure.co/mozambique-new-buyer-relationship-yields-higher-income-for-farmers>

The blog post on Market Links Feb2022:

[Improving the Bottom Line in Agriculture: How FTF INOVA Built the Business Case for Investment in Smallholders in Mozambique | Marketlinks](#)

### **List of videos on FTF INOVA:**

FTF INOVA videos: <https://www.youtube.com/channel/UCuKZUu6lmkbRp6eDFxMuGOA>

Partnering with input sector: <https://www.youtube.com/watch?v=zmQL4dy3HpM&t=14s>

APROSE: <https://www.youtube.com/watch?v=S5BYNXv2PWs>

Community radios: <https://www.youtube.com/watch?v=kJU7sKsiW8Y&t=24s>

Trucking routes with CdA: <https://www.youtube.com/watch?v=B4yjLvWOXtQ&t=42s>

OLAM clube do Melhor Produtor Lalaua 2020:

[https://www.youtube.com/watch?v=bTz\\_2NLSNmM&feature=youtu.be](https://www.youtube.com/watch?v=bTz_2NLSNmM&feature=youtu.be)

Presentation at the Local Community Systems 2020. <https://youtu.be/4LQSbUI2GWs>

Partners testimonials: [https://www.youtube.com/watch?v=w\\_2ng\\_4BR\\_A](https://www.youtube.com/watch?v=w_2ng_4BR_A)

Distribution routes: <https://www.youtube.com/watch?v=B4yjLvWOXtQ&feature=youtu.be>

1st NATIONAL SEED COMPETITION. Initiative from APROSE in partnership with FTF-FTF INOVA and SEMEAR: <https://www.youtube.com/watch?v=WzmLCgjd96E>

Road to Appload 2021 (draft): <https://www.youtube.com/watch?v=q3RbNBRQkzQ>

FTF INOVA amplification videos (ETG, ECA, Appload, Oruwera, UBS):

<https://drive.google.com/drive/folders/12H1AhzhyLE75DZJPu5aCQDIhQGIMKaAS?usp=sharing>

inventory and stock management virtual reality module: <https://youtu.be/aC9aItIPoLE>

Closeout workshop: <https://www.youtube.com/watch?v=b-27bKcWDEQ>

Challenge Fund Statements: <https://docs.google.com/document/d/1gOd5My-SC4tLecXnzSBsv53mZdyPsjAQohRw3PNv84s/edit>

## Challenge Fund videos

FutureFood (COP interview): <https://www.youtube.com/watch?v=L4tSJldQmfl>

Moz MSD Network workshop on Resilience:

[https://elimservicos.zoom.us/rec/play/W3lrnbEW2Kynq5\\_5P8DvrtmzDbo-upJg4T-t7Evt2fgODupMf5QyjCSa8UBpHofRN8ey-9q\\_8VsFUTqd.yU\\_OzhMqtRQriRfi](https://elimservicos.zoom.us/rec/play/W3lrnbEW2Kynq5_5P8DvrtmzDbo-upJg4T-t7Evt2fgODupMf5QyjCSa8UBpHofRN8ey-9q_8VsFUTqd.yU_OzhMqtRQriRfi)

## Annexure 5 Stakeholders Interviewed

|    | NAME                   | ORGANIZATION                              | DESIGNATION           |
|----|------------------------|-------------------------------------------|-----------------------|
| 1  | Claire Hassoun         | Appload                                   | CEO                   |
| 2  | Alison Taylor          | Empresa de Comercialização Agrícola (ECA) | Director              |
| 3  | Newton Oficio          | UCM Universidade Catolica de Mocambique   | not given             |
| 4  | Norberto Mahalambe     | Bayer Moçambique Ltd                      | Marketing Director    |
| 5  | Lucas Mujuju           | So Soja                                   | Managing Director     |
| 6  | Celia Ribeiro          | Luteari                                   | Managing Director     |
| 7  | Julius Mapanga         | Klein Karoo                               | Operations Manager    |
| 8  | Gil Mucave             | Prodeca                                   | not given             |
| 9  | Jose Chaora            | Chaora Comercial                          | Managing Director     |
| 10 | Israel Muchena         | Hollard Mozambique                        | Managing Director     |
| 11 | Joao Lameiras          | Grupo Madal                               | Manager               |
| 12 | Asa Than               | Winnua Lda.                               | Manager               |
| 13 | Fidel Bilika           | Unilúrio Business School                  | Director              |
| 14 | Tatiana Mata           | Mutiana                                   | Managing Director     |
| 15 | Heinrich Van Der Merwe | Agri-Mel Limitada                         | Administrator         |
| 16 | Andrew Mbetsa          | Novatech                                  | Managing Director     |
| 17 | Shrikanth Naik         | Export Trading Group (ETG)                | Manager               |
| 18 | Rumbidzai Ngonyama     | Kurima AgroServices                       | Owner                 |
| 19 | Dona Maria             | Village Based Agent                       | Owner                 |
| 20 | Nick Dexter            | USAID RAMA                                | Chief of Party        |
| 21 | Morgen Gomo            | SDC FTF INOVAGRO                          | Team Leader           |
| 22 | Luca Crudeli           | USAID FTF INOVA                           | Former Chief of Party |
| 23 | Raul Pitoro            | USAID FTF INOVA                           | Chief of Party        |
| 24 | William Grant          | DAI                                       | Home Office Advisor   |
| 25 | Jane Grob              | Technoserve                               | Country Director      |
| 26 | Tinashe Nyahwedegwe    | Technoserve                               | Regional MEL Manager  |
| 27 | Meghan Bolden          | Market Share Associates (MSA)             | Senior MEL specialist |
| 28 | Munyaradzi Muzenda     | USAID FTF INOVA                           | Portfolio Manager     |
| 29 | Jahamo Calima          | USAID FTF INOVA                           | Portfolio Manager     |
| 30 | Nurdine Sale           | USAID FTF INOVA                           | Portfolio Manager     |
| 31 | Hirondina Mondlane     | USAID FTF INOVA                           | Portfolio Manager     |
| 32 | Elsa Mapilele          | USAID Mozambique                          | FTF INOVA COR         |
| 33 | Rui Brandao            | Casa do Agricultor                        | Manager               |
|    |                        |                                           |                       |

## Annexure 6 Evaluation Question Guide

| Stakeholder Group                                | Guiding Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Smallholder farmers</b>                       | <ul style="list-style-type: none"> <li>• Are you happy with the number of agro-dealers available in the area?</li> <li>• Does your local agro-dealer stock a variety of inputs?</li> <li>• Are you happy with the timing of the availability of inputs? (Inputs available on time for the planting season)</li> <li>• Are you happy with the support you receive from the agro-dealer when purchasing a product? (knowledge of the agro-dealers)</li> <li>• Do you receive any support post-sales? If so, are you happy with it?</li> <li>• Are you participating in any donor funded project? If so, what are you doing on that project?</li> <li>• Do you participate in any savings activity for input purchase? If not, how do you finance your inputs?</li> <li>• Are you satisfied that the concept of fundo Agricola/insurance fund/loan fund?</li> <li>• Do you what you yield/harvest/productivity is? If so, what is it?</li> <li>• Are you happy with your interaction with the private sector partner you have been working with? If so, which areas, if not, which areas?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Agro-dealers<br/>VBAs<br/>Input suppliers</b> | <p>Business model</p> <ul style="list-style-type: none"> <li>• Describe how your business model has changed over the last few years</li> <li>• Are you making any new investments? What? Why?</li> <li>• Trajectory of seed/chemical/fertilizer market in Mozambique/your area?</li> </ul> <p>Commercial relationships:</p> <ul style="list-style-type: none"> <li>• How has your distribution model evolved over last few years?</li> <li>• Any change in relationships with agro-dealers/VBAs over last few years? Do you provide services to agro-dealers/VBAs?</li> <li>• Difference in relationships with farmers?</li> <li>• Repeat transactions – more or less frequent? Why?</li> </ul> <p>Information:</p> <ul style="list-style-type: none"> <li>• Where do you get market information?</li> <li>• Who do you trust most? Why?</li> <li>• Do you feel that you have a change in your awareness of what farmers want? Example? How do you gather that info?</li> </ul> <p>FTF INOVA relationship</p> <ul style="list-style-type: none"> <li>• How is your relationship with the project?</li> <li>• Is project support too heavy or too light? Why do you say so?</li> <li>• What exactly did the project do to support you? Was it relevant?</li> <li>• What would have happened without FTF INOVA support?</li> <li>• What happens to your business model after FTF INOVA support?</li> <li>• What support do you get from other projects?</li> <li>• Is there a duplication between what FTF INOVA did for you and what other projects are doing/did for you?</li> </ul> |

|                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Private agribusiness companies/Supporting services companies</b></p> | <p>Business model</p> <ul style="list-style-type: none"> <li>• Describe how your business model has changed over the last few years</li> <li>• Are you making any new investments? What? Why?</li> <li>• Trajectory of your industry in Mozambique/your area?</li> </ul> <p>Commercial relationships:</p> <ul style="list-style-type: none"> <li>• How has your distribution model evolved over last few years?</li> <li>• Any change in relationships with your market/farmers/suppliers? Do you provide</li> <li>• Difference in relationships with farmers?</li> <li>• Repeat clients/ transactions – more or less frequent? Why?</li> </ul> <p>Information:</p> <ul style="list-style-type: none"> <li>• Where do you get market information?</li> <li>• Who do you trust most? Why?</li> <li>• Do you feel that you have a change in your awareness of what farmers/your clients want? Example? How do you gather that info?</li> </ul> <p>FTF INOVA relationship</p> <ul style="list-style-type: none"> <li>• How is your relationship with the project?</li> <li>• Is project support too heavy or too light? Why do you say so?</li> <li>• What exactly did the project do to support you? Was it relevant?</li> <li>• What would have happened without FTF INOVA support?</li> <li>• What happens to your business model after FTF INOVA support?</li> <li>• What support do you get from other projects?</li> <li>• Is there a duplication between what FTF INOVA did for you and what other projects are doing/did for you?</li> </ul> |
| <p><b>Other development programs</b></p>                                   | <ul style="list-style-type: none"> <li>• Are you implementing MSD activities in the FTF INOVA ZOI? If yes, how have you collaborated/interacted with FTF INOVA?</li> <li>• Are you implementing direct delivery activities in the FTF INOVA ZOI? If yes, how have you collaborated/interacted with FTF INOVA?</li> <li>• What is your view on the successes and failures of FTF INOVA activities and any lessons you have learnt for your own programme?</li> <li>• If failures, what do you advise could have been done better?</li> <li>• What is your view on the sustainability/relevance/impact of FTF INOVA activities?</li> <li>• What happens after the end of FTF INOVA?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><b>FTF INOVA technical team</b></p>                                     | <ul style="list-style-type: none"> <li>• Please share deal notes of the focus partners for review <ul style="list-style-type: none"> <li>○ Performance indicators are outlined in Deal Notes</li> </ul> </li> <li>• How did the project identify which market systems to focus on?</li> <li>• Which interventions in which market systems have been ongoing since the beginning of the project, if any? Why these ones?</li> <li>• Which failed pilots gave the most lessons? Which lessons? Why did they fail?</li> <li>• Which pilots were most successful? What lessons did they give? Why were they successful?</li> <li>• A number of the pilots shared started in 2020/2021, is there a reason for the late start of some pilots?</li> <li>• How was the project team structured for MSD delivery/facilitation/knowledge management?</li> <li>• How are activities split across the consortium partners?</li> <li>• How influential has FTF INOVA been in the practices of other actors in the ZOI?</li> <li>• How was knowledge captured, internalized, and disseminated?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                  | <ul style="list-style-type: none"> <li>• The MEL plan notes that the ToC was only developed after the mid-term evaluation. What was being used before that?</li> <li>• Please provide timeline of all these interventions, which started in 2017 and have carried through, which failed, which are starting in 2020</li> <li>• Please explain in detail the Agricultural Market Systems Change Wheel</li> </ul>                                                                                                                                                                                                                                                                                                                            |
| <b>USAID representative(s)</b>                   | <ul style="list-style-type: none"> <li>• What was your ambition for FTF INOVA, and do you think it has been achieved?</li> <li>• In your view, what worked and what did not work?</li> <li>• What lessons did you draw from this for your future programming?</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Government representative(s)</b>              | <ul style="list-style-type: none"> <li>• What interactions did you have with FTF INOVA? How useful were they?</li> <li>• What activities did you implement with FTF INOVA, if any?</li> <li>• What is your view on other FTF INOVA activities that you are aware of?</li> <li>• How do you coordinate/manage different development/donor funded projects?</li> <li>• Is there no duplication?</li> <li>• How do you advise donors to align with GoM policies?</li> <li>• Have you worked with donor projects like FTF INOVA in the past and if so, what has been the sustainability of similar interventions in the past?</li> </ul>                                                                                                       |
| <b>ICT/Digital technology platform providers</b> | <ul style="list-style-type: none"> <li>• Describe how your business model has changed over the last few years in relation to the agricultural sector in Mozambique?</li> <li>• Are you making any new investments in this sector? What? Why?</li> <li>• Trajectory of your industry in Mozambique/your area?</li> <li>• What activities did you carry out with FTF INOVA?</li> <li>• What was your investment in this activity and why?</li> <li>• Could this activity have happened without FTF INOVA?</li> <li>• How sustainable are the activities you did with FTF INOVA once the project ends?</li> </ul>                                                                                                                             |
| <b>Bank/Microfinance/insurance institution</b>   | <ul style="list-style-type: none"> <li>• Describe how your business model has changed over the last few years in relation to the agricultural sector in Mozambique?</li> <li>• Have you developed any financial/insurance products geared at the agricultural/smallholder sector in Mozambique?</li> <li>• Are you making any new investments in this sector? What? Why?</li> <li>• Trajectory of your industry in Mozambique/your area?</li> <li>• What activities did you carry out with FTF INOVA?</li> <li>• What was your investment in this activity and why?</li> <li>• Could this activity have happened without FTF INOVA?</li> <li>• How sustainable are the activities you did with FTF INOVA once the project ends?</li> </ul> |

# Annexure 7 Scope of Work

## BACKGROUND

The Feed the Future Mozambique Agricultural Innovations Activity (FTF INOVA) is a five-year United States Agency for International Development (USAID) activity that began on February 22, 2017. FTF INOVA has a budget of \$21,718,213 and is to be completed by June 30, 2022. DAI Global LLC leads the implementation, supported by Technoserve and MarketShare Associates.

FTF INOVA takes a market systems development (MSD) approach to stimulate inclusive and sustainable, agriculture-led economic growth, as well as to increase the resilience of the agricultural sector, both of which are critical to reducing poverty and hunger in Mozambique. In its fifth year of implementation, FTF INOVA developed strategic relationships with market actors (i.e. input distributors, seed suppliers, agro dealers, agro processors); supply chain actors (i.e. output buyers, supermarkets, aggregators, retailers) and support service providers (i.e. Universities, ICT firms, marketing companies, transport and logistic firms, community radios), to test innovative business models and new technologies. The innovations promoted by FTF INOVA aim to improve the incomes of Mozambique's smallholder farmers (SHFs) and drive long-term, sustainable, and inclusive growth in the agriculture sector.

Given that MSD programs aim to shift the way the system works to improve the lives of those living in poverty, evaluation of MSD programs requires assessing systemic changes with appropriate methods.<sup>1</sup>

## PURPOSE OF THE FINAL EVALUATION

The purpose of this final evaluation of the FTF INOVA activity is to conduct a theory-based evaluation<sup>2</sup> (preferably contribution analysis or process tracing) to investigate what mechanisms of change FTF INOVA and partners facilitated, as well as how and why they worked (or did not). The goals of this evaluation are to determine the relevance and level of achievement of project objectives, understand what worked, why and how, to inform the new USAID activities like RESINA and PREMIER, and to share learning with other stakeholders, including donors and the Mozambique government to influence decision-making processes.

The specific objectives are to:

- Review the types of activities implemented by FTF INOVA, the causal model, and suggest recommendations on how the Theory of Change (ToC) would better describe the expected pathways of change from FTF INOVA activities to the goal. Revise the ToC as necessary if changes or additions are needed.
- Review the interventions and associated market system changes that the FTF INOVA introduced in the marketplace.
- Identify and assess the impact of interventions in empowering women and youth and provide opportunities for increased incomes and food systems.
- Assess the effectiveness, efficiency, and sustainability of market systems

interventions implemented and its impacts on individuals, communities, and systems.

- Develop and determine which interventions had greatest impact and can be scaled up and amplified nationwide.
- Investigate the links between each stage of the ToC, for select market system changes, and gather evidence to decide whether the interventions have had the planned impact or not at the market system, partner and end- beneficiary levels. Consider whether the interventions are likely to have additional impact following the closure of FTF INOVA.
  - Review data already available from FTF INOVA
  - Interview main stakeholders involved in the interventions.
- Determine the extent to which the portfolios of interventions worked in synergy toward overall shifts in the market system dynamics that has led to additional impacts, such that the FTF INOVA overall effect adds up to more than the sum of the intervention outcomes.
- Determine to what extent has FTF Innova spurred innovations in the agriculture market systems and brought an element of novelty or transformation in modus operandi for implementation of future USAID activities.
- Assess any unintended or negative effects, especially where different individual interventions may have impeded each other.

## METHODS AND TASKS

Under the overall leadership of the FTF INOVA Chief of Party, in collaboration with the MEL Manager and the MarketShare Associates MEL Senior Advisor, the consultant will perform the following tasks:

1. Develop and work with USAID and FTF INOVA to finalize the methodology and the focus for the final evaluation, including an evaluation matrix similar to the one below.

| Hypothesis from ToC | Evaluation Question | Evaluation Design | Analytical Methods | Data Collection Tools and Resources |
|---------------------|---------------------|-------------------|--------------------|-------------------------------------|
|                     |                     |                   |                    |                                     |
|                     |                     |                   |                    |                                     |

2. Review existing documentation from market analyses, portfolio strategies, implementation plans, annual reports, the MEL-system, etc.
3. Review existing data from the MEL-system including baseline data, performance assessments, stakeholder surveys and data collected on program indicators
4. Establish a list of open-ended questions and a list of candidates for interviewing which should be discussed with USAID and the program staff
5. Organize interviews on process and progress with relevant program staff in Mozambique

and Bethesda, Maryland.

6. Organize group discussions and/or individual interviews with stakeholders and partners.
7. Organize a feedback section with FTF INOVA to discuss preliminary findings giving an opportunity to clarify any pending questions before the final report

Based on the above approach the consultant(s) will further design the appropriate methodology.

Field work should include but not limited to meetings with partner organizations, smallholder farmers, private sector firms, media, universities, and government representatives working with or benefitting from FTF INOVA in the zone of influence (i.e. Manica, Sofala, Tete, Zambezia, Nampula, Niassa, and Cabo Delgado).

## **DELIVERABLES**

The following deliverables are expected under this assignment:

- ☐ Inception plan (workplan and methods) presented and discussed with USAID and FTF INOVA
- ☐ List of potential interviewees, focus group discussions and/or surveys
- Question guides
- Draft evaluation report to USAID and FTF INOVA for review
- Evaluation Report including responses on the aforementioned objectives
- Presentation of findings to FTF INOVA staff and USAID

## **COORDINATION**

The consultant will report to the Chief of Party, Raul Pitoro, with close collaboration with the MEL staff. The consultant will work closely with the FTF INOVA Team and Mozambique countryteam, consulting with partners and other stakeholders when relevant.

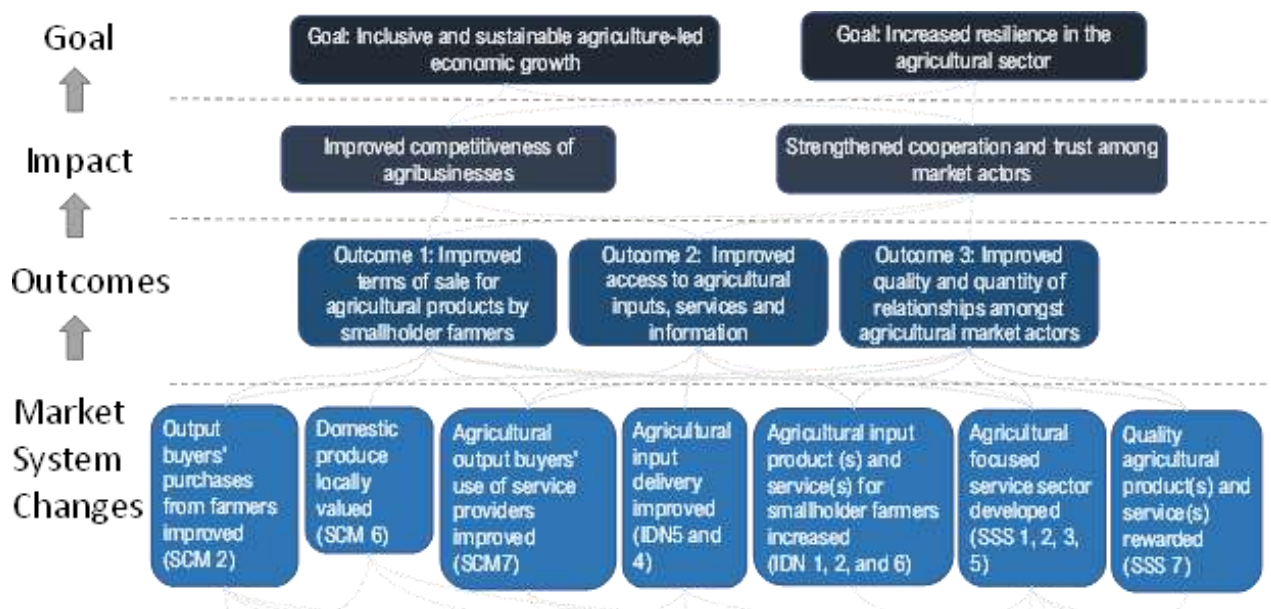
## **QUALIFICATIONS**

The consultant should have a background in MSD programming, have evaluated other agricultural market systems programs, and ideally have conducted at least two similar theory-based evaluations (using contribution analysis or process tracing). The suitable candidate should have:

- ☐ Advanced University Degree in a relevant field
- ☐ A minimum of 7 years of experience in designing/developing and implementing quantitative and qualitative research studies in a developing country context.
- ☐ Strong qualitative and quantitative research and analytical skills.
- ☐ Prior experience evaluating USAID or USG funded programs (preferred)
- ☐ Extensive field and international experience.
- ☐ Excellent written and verbal communication skills, presentation, and reporting skills.

- Excellent organizational skills and ability to work under tight deadlines and under pressure.

## ANNEX 1: THEORY OF CHANGE SUMMARY



## ANNEX 2: FTF INOVA RECOMMENDED INTERVENTIONS FOR FINAL EVALUATION

| <b>INTERVENTION</b>                                                                         | <b>MARKET SYSTEM CHANGE</b>                                  | <b>FTF INOVA PARTNERS AND THEIR BENEFICIARIES</b>                                                                              |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| ROTA CERTA TRUCKING ROUTES                                                                  | AGRICULTURAL INPUT DELIVERY IMPROVED                         | CASA DO AGRICULTOR <ul style="list-style-type: none"> <li>• AGRODEALERS</li> <li>• CUSTOMERS</li> </ul>                        |
| COMMUNITY OR VILLAGE BASED AGENTS PRE-ORDERS NO MARKUP (INCLUDED FEMALE FOCUSED ACTIVITIES) | AGRICULTURAL INPUT DELIVERY IMPROVED                         | K2, BAYER, LUTEARI, ORUWERA <ul style="list-style-type: none"> <li>• AGRODEALERS</li> <li>• CUSTOMERS</li> </ul>               |
| CUSTOMER CENTRIC PRODUCT(S)/SERVICES (INCLUDED FEMALE FOCUSED ACTIVITIES)                   | AGRICULTURAL INPUT PRODUCT(S) AND SERVICES FOR SHF INCREASED | ORUWERA, K2, CATINA 2001, AIPM, ORUWERA <ul style="list-style-type: none"> <li>• CUSTOMERS</li> <li>• FEMALE GROUPS</li> </ul> |
| TRANSPARENT PERFORMANCE SUPPLIERS' NETWORK SCHEMES (INCLUDED FEMALE FOCUSED ACTIVITIES)     | OUTPUT BUYERS' PURCHASES FROM FRAMERS IMPROVED               | MIRUKU, NOVO MADAL, ETG, OLAM <ul style="list-style-type: none"> <li>• SUPPLIERS</li> </ul>                                    |
| DOMESTIC PRODUCE SUPPLY CHAIN DEVELOPMENT                                                   | DOMESTIC PRODUCE LOCALLY VALUED                              | KA DA TERRA AND ADICIONAL'S PROP <ul style="list-style-type: none"> <li>• AGGREGATORS AND URBAN VENDORS</li> </ul>             |
| TAILORED MARKETING AND BUSINESS SERVICES.                                                   | AGRICULTURAL SERVICE SECTOR DEVELOPED                        | TANGERINE <ul style="list-style-type: none"> <li>• AGRODEALERS</li> <li>• AGR FIRMS</li> </ul>                                 |
| TAILORED WORKFORCE AND BUSINESS DEVELOPMENT SERVICES (INCLUDED YOUTH FOCUSED ACTIVITIES)    | AGRICULTURAL SERVICE SECTOR DEVELOPED                        | UBS, UCM <ul style="list-style-type: none"> <li>• STUDENTS</li> <li>• TEACHERS</li> <li>• PRIVATE SECTOR FIRMS</li> </ul>      |
| TAILORED LOGISTICAL AND AGRICULTURAL DELIVERY SERVICES                                      | AGRICULTURAL SERVICE SECTOR DEVELOPED                        | APPOAD AND ECOTRI <ul style="list-style-type: none"> <li>• TRANSPORTERS</li> <li>• CUSTOMERS</li> </ul>                        |

|                                                                                 |                                                         |                                                                                                                      |
|---------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| ICT ENABLED INVENTORY AND DIGITAL PAYMENT SOLUTIONS                             | AGRICULTURAL SERVICE SECTOR DEVELOPED                   | GREEN FINGERS MOBILE, XR GLOBAL <ul style="list-style-type: none"> <li>• AGR FIRMS</li> <li>• AGRODEALERS</li> </ul> |
| RECOGNITION OF GOOD BUSINESS PRACTICES IN THE FORM OF PUBLIC AWARDS AND REWARDS | QUALITY AGRICULTURAL PRODUCT(S) AND SERVICE(S) REWARDED | APROSE AND ITS MEMBERS <ul style="list-style-type: none"> <li>• AGR FIRMS</li> </ul>                                 |

