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Financial Inclusion for Smallholder Farmers in Africa Project (FISFAP)

Mid-term evaluation

September 2017

AGRA
Growing Africa's Agriculture

mastercard foundation

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LIST OF ACRONYMS

ACRE	Agriculture and Climate Risk Enterprise
ADDP	Agro-Dealer Development Program
AGRA	Alliance for a Green Revolution in Africa
AGRF	African Green Revolution Forum
ASI	Agribusiness Systems International
DAC	Development Assistance Committee
DIFT	Digital Inputs Financing Toolkit
EAFF	East Africa Farmers Federation
EATIL	ETC Agro and Implements Ltd
ETC	Export Trading Company
ETG	Export Trading Group
FASL	First Allied Savings and Loans
FBO	Farmer-based organisations
FGD	Focus group discussion
FinTech	Financial technology
FISFAP	Financial Inclusion for Smallholder Farmers in Africa Project
FMP	Farm management plan
FSDK	Financial Sector Deepening Kenya
FSDT	Financial Sector Deepening Trust
FSP	Financial service providers
GAIP	Ghana Agricultural Insurance Programme
GAP	Good Agricultural Practices
GRC	Grant review committee
GSMA	Groupe Spéciale Mobile
HCD	Human centred design
ICT	Information and Communication Technology
IFC	International Finance Corporation

IPTT	Indicator Performance Tracking Table
KCB	Kenya Commercial Bank
KII	Key informant interview
KPI	Key performance indicators
MEL	Monitoring, Evaluation and Learning
MNO	Mobile network operators
NGO	Non-Governmental Organisation
OPIC	Overseas Private Investment Corporation
PIL	Positive International Ltd
POS	Point-of-sale
PROFIT	Program for Rural Outreach of Financial Innovations and Technologies
QA	Quality assurance
RPG	Replanting guarantee
RAF	Rural and Agricultural Finance
SELF	Small Entrepreneurs Loan Facility
SCF	Supply chain finance
SFIN	Smallholder Financial Inclusion
SME	Small and Medium-sized enterprises
SSTP	Scaling Seeds and Technology Partnership
TADB	Tanzania Agricultural Development Bank
TOC	Theory of Change
VAELL	Vehicle and Equipment Leasing Limited
WIDO	Women Integrated Development Organisation

EXECUTIVE SUMMARY

INTRODUCTION

Financial Inclusion for Smallholder Farmers in Africa Project (FISFAP) is a five-year project implemented by AGRA and funded by Mastercard Foundation. The project aims to improve the productivity and incomes of 728,000 smallholder farmers in Ghana, Kenya, and Tanzania through the provision of innovative solutions that facilitate access to financial and non-financial services for smallholder farmers and agri-SMEs.

Now in its third year of implementation, AGRA and Mastercard Foundation engaged an external evaluator, Genesis Analytics ("Genesis"), to conduct a mid-term evaluation of FISFAP. The purpose of this mid-term evaluation is to provide a reasoned and independent view of FISFAP's design, achievements, and challenges, as well as an assessment of the performance of the project against its intended goals and objectives. The evaluation is intended to offer evidence and guidance that will shape the project moving forward and generate key lessons for future strategic and programming decisions in AGRA and Mastercard Foundation.

EVALUATION APPROACH

The mid-term evaluation of the project was conducted using a mixture of qualitative and quantitative data collection methods, where primary data collection was predominantly qualitative, but was triangulated against secondary quantitative data collected from AGRA and FISFAP partners. The following data collection methods were used:

- Document and data review
- Key informant interviews
- Site visits
- Focus group discussions

CONCLUSIONS AND LESSONS LEARNT

The key emerging findings from the evaluation are as follows:

- FISFAP's targets are ambitious and, while they might eventually be achieved, they will likely not be reached within the project's lifespan due to delays in implementation. The targets were set using a loose calculation and more consideration could have been given to the country contexts when setting these.
- The project experienced a number of implementation delays. These are inevitable but the project team should be cognisant of the impact this has on FISFAP's pipeline and grantee implementation plans, particularly when these are dependent on harvesting cycles, which then has a knock-on effect on the ability of the grantee to achieve targets.
- Interaction with beneficiaries, in the form of financial literacy and capacity building that sensitises farmers and drives a behaviour, is critical to the success of these types of innovations, particularly as they are starting out.
- FISFAP operates in a context where donor 'crowding' is a challenge, and donor funded solutions often compete with each other. Face time with farmers is therefore important in differentiating a solution from numerous others that are being tested by other donors.

- Grantees' that have adopted client-centric approaches have been successful, but this has required external support in the form of funding and technical assistance which is then internalised within the organisation.
- Understanding and overcoming gender dynamics and barriers facing female smallholder farmers in accessing financial and non-financial services is a particular interest of Mastercard Foundation, however, FISFAP does not require grantees to achieve and report on gender-differentiated targets.
- The FISFAP team is currently appropriately staffed and the strength of the team, with their sectoral knowledge and networks in the three FISFAP countries, as well as their ability to work together to select the right partners, has been a significant driver of the projects' success.
- Given the stage of implementation of the current portfolio, it is too early to assess the impact of the project on farmer outcomes or its influence on the broader ecosystem.
- The additionality of FISFAP is high, in particular the technical assistance provided by the FISFAP team.
- It is too early to assess the financial sustainability of the solutions funded by FISFAP, but it is clear that grantees have a vested interest in ensuring these solutions are successful and sustainable.
- The MEL function within FISFAP has strengthened significantly over recent months, however, there are still improvements to be made to monitoring and reporting processes, including reducing inconsistencies, improving quality assurance of partner data and moving to an electronic reporting system.
- Knowledge dissemination is an important component of FISFAP. This is currently being done in an ad hoc way, and could be strengthened to be more structured and targeted going forward, while remaining opportunistic as the market evolves.
- The FISFAP strategy and TOC underwent a complete overhaul one year into the grant period and these changes have given the project much more strategic direction, and increased the project's cost effectiveness.

RECOMMENDATIONS

We suggest that AGRA consider and adopt the following recommendations, which were developed based on the findings and analysis of the evaluation:

- AGRA should apply to Mastercard Foundation for a no-cost extension to the FISFAP grant for one year.
- FISFAP should expand the target indicators that it reports on to Mastercard Foundation to include adoption and continued usage (retention) of the solutions provided by grantees.
- Where possible, AGRA should work on streamlining grant development processes, and on speeding up the slow grant approval process within AGRA.
- FISFAP should continue to support partners (through TA and consultancy support) in becoming more client-centric in terms of how they approach customer segmentation, conduct research to understand client needs, and use that information to adapt their products and services.
- Ensure that grantees sufficiently account for the needed interaction with beneficiaries, in the form of financial literacy and capacity building that sensitises farmers and drives a desired behaviour.
- To avoid delays in implementation caused by dependencies on sub-partnerships and the time taken to secure third-party relationships, the FISFAP team could assess the buy-in and ability to implement of proposed sub-partners put forward in concept notes during proposal phase.

- Given Mastercard Foundation and AGRA's mandate to reach female smallholder farmers, FISFAP should encourage grantees to target women. As a first port of call, FISFAP should fund a learning study on 'The business case for serving female smallholder farmers'.
- If grantees are still not encouraged to target female smallholder farmers, FISFAP should consider setting gender-disaggregated targets and amend grantee contracts to link grant disbursements to the achievement of these targets.
- The project should go ahead with staffing the West Africa PO position to extend the additionality of FISFAP to AGRA and Mastercard Foundation within the region and francophone countries specifically.
- The funding provided by MasterCard Foundation to AGRA for FISFAP should not be seen in isolation of the organization as a whole. Certain activities that are currently being funded by FISFAP contribute to developing the mandates of both AGRA and the Foundation in the region and support the movement towards integrated programming and greater ecosystem strengthening. As such, FISFAP should define what these activities are, what their purpose is in the broader ecosystem, and budget line items should be allocated to them as part of FISFAP reporting.
- The FISFAP teams in Ghana and Tanzania should participate more in industry forums and debates to increase the project's ecosystem influence, such as donor working groups and regulatory review panels.
- FISFAP should rethink the impact studies and consider reallocating the impact budget as the types of impact evaluations proposed for Umati and Esoko are extremely difficult when implemented in a 'business-as-usual' environment.
- FISFAP should consider requiring its partners to report annually on the business case of their innovations. This would allow the final evaluation team to conduct a more in-depth analysis of the financial sustainability of FISFAP-supported initiatives.
- As the innovations funded by FISFAP progress, and their success is documented, AGRA should consider which of these can be replicated in other countries, either by the existing partners that have a presence in other geographies, or by different partners adopting the proven models.
- FISFAP should focus the next few months on consolidating its monitoring and reporting processes, focusing on reducing reporting inconsistencies, improving quality assurance and moving to an electronic reporting system.
- FISFAP should be more structured and targeted in its approach to knowledge dissemination going forward, while remaining opportunistic as the market evolves, and increase the regularity of its learning activities.
- To leverage the learning budget further, FISFAP could consider implementing more smaller learning activities.
- Linked to this, AGRA should define and agree on their support from the RAF Learning Lab.
- Mastercard Foundation and RAF Learning Lab should assist in showcasing FISFAP's achievements more at their own events, such as the annual Symposium on Financial Inclusion hosted by the Foundation.
- FISFAP and Mastercard Foundation should consider the extent to which the project should measure the effect of its learning activities.
- Given Mastercard Foundation's strategic focus on youth livelihoods, with financial inclusion as an important means through which this is achieved, and agriculture as a core sectoral focus, AGRA should consider engaging partners that specifically target young people and focusing a learning activity on the ability to create employment and enterprise opportunities for young people in agriculture through the provision of bundled services that leverage technology.

1 INTRODUCTION

The Alliance for a Green Revolution in Africa (AGRA) seeks to catalyse agriculture transformation in Africa by developing smallholder agriculture into a productive, efficient, and sustainable system. In 2014, Mastercard Foundation awarded a USD15.5 million grant to AGRA to implement the Financial Inclusion for Smallholder Farmers in Africa Project (FISFAP) over five years with the aim of improving the productivity and incomes of 728,000 smallholder farmers in Ghana, Kenya, and Tanzania.

Now in the project's third year of implementation, AGRA and Mastercard Foundation engaged an external evaluator, Genesis Analytics (hereafter referred to as Genesis), to conduct a mid-term evaluation of FISFAP. The purpose of this mid-term evaluation is to provide a reasoned and independent view of FISFAP's design, achievements, and challenges, as well as an assessment of the performance of the project against its intended goals and objectives. The evaluation is intended to offer evidence and guidance that will shape the project moving forward and generate key lessons for future strategic and programming decisions in AGRA and Mastercard Foundation.

As part of the mid-term evaluation, Genesis conducted site visits to Kenya, Tanzania and Ghana from the 25 July to 11 August 2017, which was complemented by a review of data and documentation provided by FISFAP, as well as secondary research.

This evaluation report captures the main achievements of the project to date, including strategic and operational successes and challenges; drawing on the perspectives of project and external stakeholders and farmers. The findings and the analysis thereof are presented according to eight categories: i) Progress of FISFAP against its targets; ii) The relevance and effectiveness of partner selection and support; iii) Successes and challenges in implementation at AGRA and partner level; iv) How partners have gone about understanding and meeting clients' needs; v) Signals of emerging impact at farmer and ecosystem level and the additionality of the FISFAP grants in achieving this; vi) The financial sustainability of the innovations funded by FISFAP, vii) FISFAP's strategy and its alignment to Mastercard Foundation and other market actors; and viii) The efficiency and effectiveness of FISFAP's monitoring, evaluation and learning. This report then concludes with the key lessons learnt through the evaluation and corresponding recommendations.

The Appendix includes brief overviews of each of the current FISFAP grantees, as well as detailed lists of stakeholders consulted and documents reviewed as part of the evaluation.

2 BACKGROUND

2.1 CONTEXT

Smallholder farmers make up the majority of the farming population in all three FISFAP countries and depend on agriculture as their main source of income and livelihood. The majority of these farmers are faced with a number of pre- and post-harvest challenges which continue to limit their ability to improve their productivity and incomes. Some of these challenges include but are not limited to lack of access to finance, lack of access and low usage of quality inputs, low levels of mechanisation, lack of access to good quality storage and high post-harvest losses, lack of access to lucrative markets and high commodity prices, and a lack of farming skills. While some of the challenges are more generic, the discussions below detail challenges that relate to inputs, mechanisation, post-harvest technologies and markets, and access to finance in general, which are the key focus areas of FISFAP.

2.1.1 Inputs

Access to and proper use of agricultural inputs such as seeds, fertilizers and chemicals are key factors to increasing agricultural productivity. Most smallholder farmers do not have access to certified inputs such as fertilisers and seeds and are often faced with challenges of buying fake inputs and not getting them in time for planting. Where available, some farmers are not using the appropriate quantity of inputs required to achieve optimal yields. In Ghana, for example, research shows that fertiliser usage among smallholder farmers is the lowest in the world averaging 17.5kg per hectare.[1] Among the reasons for low input usage are the high costs of inputs and lack of timely access to finance to purchase inputs. Access to finance for farmers to purchase inputs is not available and interest rates are high. In addition, some of the smallholder farmers have been reported to lack agronomic knowledge of how to use inputs efficiently. In Kenya, research shows that a large number of farmers report that they don't need fertiliser with more than half reporting that they can't afford fertiliser.[2]

Efforts to address the input use challenge have focused on adopting the agro-dealer approach. FISFAP partners PIL, Tulaa (Esoko). e-Granary (EAFF) and SELF are all promoting tools that enable farmers to buy inputs through agro-dealers.

2.1.2 Mechanisation

Mechanisation is widely acknowledged as a key input to improving agricultural productivity but utilisation levels among smallholder farmers remain low. Most smallholder farmers resort to hand hoe cultivation, which is labour intensive and limits their ability to expand their production areas. According to VAELL (TingA), key reasons for low levels of mechanisation among smallholder farmers include inadequate mechanisation extension services, inadequate access to mechanisation technologies, and lack of finance available to farmers and operators. Discussions with stakeholders in Tanzania revealed that a key challenge for financing mechanisation is liquidity. According to FSDT, most financial institutions do not have the liquidity and capital required to provide long-term financing for mechanisation. This is evident from the widespread short-term financing observed on the market with loans with a maximum tenure of three years for mechanisation.

Despite these challenges, agribusiness actors and financial institutions have begun exploring innovative ways of improving access to mechanisation for smallholder farmers. A key innovative model has been leveraging lead farmers as mechanisation service providers to smallholder farmers who then access mechanisation through hiring tractors. This model is currently being implemented by EATIL in Tanzania and VAELL in Kenya.

2.1.3 Markets

Another key challenge confronting smallholder farmers is the lack of access to lucrative markets where they can fetch high prices for their commodities. Most smallholder farmers sell produce at the farm gate to middlemen at very low prices. A key observation from the study was that most smallholder farmers do not have access to market information such as market prices, buyers and what commodities are required by buyers in the market. Access to markets has in some countries been affected by government regulatory measures. For example, in Tanzania the government bans

[1] As reported by Esoko

[2] As reported by Financial Sector Deepening Kenya

all grain exports until the country's national food reserve agency has reached self-sufficiency.[3] During this time smallholder farmers are not able to sell their commodities to export markets where they fetch higher prices, thus forcing them to sell to local middlemen.

Market linkage models including a nucleus aggregator model and outgrower schemes are some of the key innovations being used to link smallholder farmers to markets. Other agriculture value chain actors, including the Export Trading Group (ETG), have set up commodity trading centres around farming districts where they purchase commodities from farmers linking them to their off-take market.

2.1.4 Post-harvest storage and losses

Smallholder farmers suffer from high storage post-harvest losses, currently as much as 30%,[4] as they do not have access to appropriate storage and use sacks as a means of storage. Warehouse receipt systems have emerged as key solution to addressing post-harvest solutions for smallholder farmers and reducing post-harvest losses and allowing farmers to access financial services using their stored commodities as collateral. SELF Wholesale Microfinance recognises the importance of warehouse storage as a means to reduce post-harvest losses and allows farmers to fetch high prices when market prices have improved. To this end, SELF, under FISFAP, is looking to introduce a warehouse receipt system.

2.1.5 Weather risks

Smallholder agriculture is predominately rain fed and subject to weather risks. Irrigation has long been considered as a key solution to combat against weather risks, particularly droughts. However, financial products for smallholder irrigation schemes are seldom available and affordable to smallholder farmers. The Tanzania Agricultural Development Bank (TADB) is implementing an innovative approach to introducing irrigation schemes to smallholder farmers by providing finance to local government authorities. The model is that TADB extends finance to the local government authorities who then set up the irrigation schemes and hand it over to smallholder farmers who will then repay the loan to TADB using proceeds from the irrigation scheme.

Insurance has become increasingly important with the growing concerns around weather risks that continue to affect smallholder farmers. However, insurance markets for smallholder farmers across the three FISFAP countries are generally weak and underdeveloped. Formal financial service providers, such as commercial banks and insurance providers, have found it difficult to serve smallholder farmers growing staple crops because of limited internal commitment and understanding of cash flows, as well as inappropriate risk assessment and product development processes. In Ghana for example, The Ghana Agricultural Insurance Programme (GAIP) has been reported to be performing badly with farmers not receiving pay-outs on their insurance claims.[5] Despite the general view that insurance markets are weak, other organisations are piloting insurance products in the smallholder agriculture sector. For example, Acre Africa has developed an insurance product that helps with risk mitigation in arid regions allowing farmers who are vulnerable to drought to cover themselves from loss through their insurance product.

[3] As reported by Meru Community Bank

[4] AGRA Financial Inclusion Report

[5] AGRA Financial Inclusion Proposal

2.1.6 Access to finance

Access to finance is a cross-cutting issue affecting smallholder farmers. Farmers require access to finance to purchase the requisite inputs, purchase and or hire mechanisation services and to invest in post-harvest storage and market linkage technologies. However, access to adequate, appropriate and affordable formal financial services among smallholder farmers is a general challenge in all three countries. The general perception is that smallholder farmers are too costly and risky to serve and the sector does not present a compelling business case to invest in. Consequently, many smallholder farmers rely on informal financial sources, microfinance institutions and rural community banks for finance. These institutions and banks often lack the capacity, sectoral knowledge and capital required to lend to agriculture.

Information asymmetry is a key constraint for both lenders and borrowers. Financial institutions often lack the sectoral knowledge required to design products that meet the requirements and capacities of smallholder farmers. This information asymmetry results in bank products not taking into account agronomic cycles or producer needs and stringent risk assessment procedures that fail to recognise non-traditional forms of collateral and ability to repay. On the other end, most smallholder farmers have insufficient knowledge and understanding of financial offerings and are therefore unable to understand how product offerings work, what they entail, and what is required to access them. This is particularly the case with insurance products where, although most farmers understand it is something they need, they have little understanding as to how it works.

Collateral is a common access to finance challenge across the countries and continues to be a requirement for lending among most financial institutions. In Tanzania, it is a regulatory requirement that all loans are secured by up to 125% of the value of the loan,[6] making it difficult for smallholder farmers to access loans. Group lending methodologies have been adopted across the countries as a means to reduce the collateral requirements.

Value chain finance has been applied as an approach to provide financing to smallholder farmers. For example, in Ghana banks tend to target the aggregators, nucleus farmers, and processors as financing entry points as they are more comfortable working with established businesses with large balance sheets and who can push credit and pull produce through the value chain.

2.1.7 Digital Solutions

Technologically-enabled solutions present an opportunity to overcome some of the major challenges faced by smallholder farmers. In recent years the Central Banks in the three FISFAP countries have adopted a relaxed regulatory approach to allow for the launching of alternative delivery channels – i.e. mobile phones and agents. These digital channels allow institutions to reach customers at a much lower cost compared to brick-and-mortar infrastructure and with reduced risks as more data on clients becomes available for analysis, certification, and rating purposes.

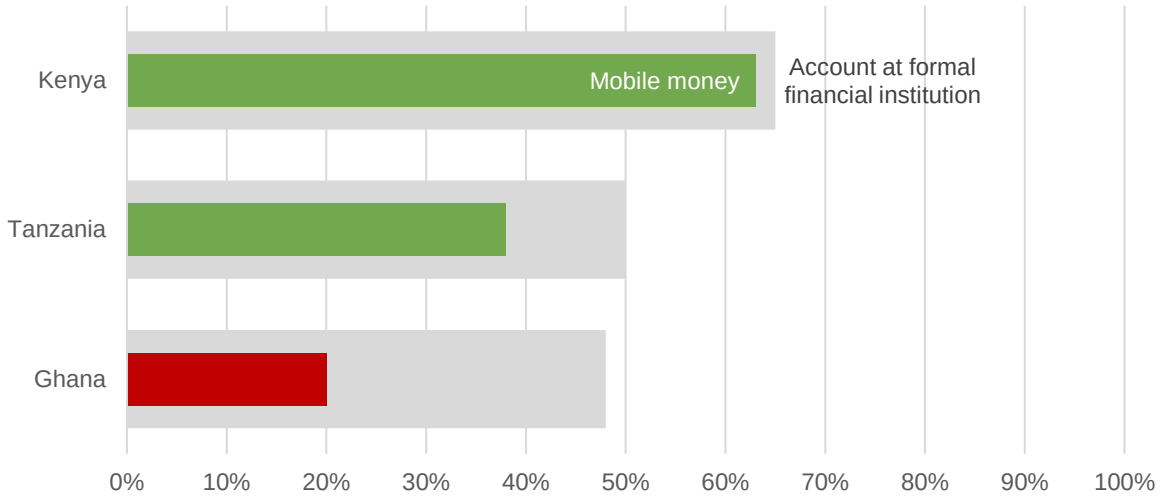
This has led to increased competition, with mobile network operators (MNOs), payments providers, and other Fintech companies developing solutions to serve smallholder farmers and other base of the pyramid segments. As a result of these developments the Findex[7] and Financial Inclusion Insights

[6] Tanzania Agricultural Development Bank

[7] World Bank Financial Inclusion Index

(2015)[8] surveys show that financial inclusion has increased across the three countries since 2011, largely driven by the uptake of mobile money. In Kenya and Tanzania, with 72% mobile phone penetration in both countries, more adults have mobile money accounts than bank accounts.[9] While mobile money has also grown in Ghana, it is not as prevalent due to limited ICT infrastructure. The figure below shows that, in Kenya, the number of adults with mobile money accounts is fast reaching the number of adults with accounts at any formal financial institution (including, but not limited to, banks, insurers, microfinance institutions and pension funds).

Figure 1: Financial inclusion levels in FISFAP countries (% of adults)



The extent to which digital solutions have increased financial inclusion varies across urban and rural areas, with a higher percentage of urban dwellers having a mobile money account.[10] Similarly, agency banking, although gaining some traction in Kenya, is still in its infancy and primarily concentrated in urban centres. Among some of the key reasons for this is that the infrastructure costs associated with expanding to rural areas, as well as the lack of expertise amongst solution providers to develop appropriate and affordable products.

Despite these challenges there is growing interest and investment in digital solutions by the private sector. These have been mainly concentrated around payments, layaway mechanisms, and information.

On the information side, there are reportedly over 150, mainly donor-funded, digital solutions providing farmers with information on market prices, Good Agricultural Practices (GAPs), etc. in the three focus countries.[11] However, many of them have struggled to grow and be financially sustainable beyond the donor project term because they are either unaffordable, not well suited for the farmer needs, or farmers do not understand or trust them. These flaws in business models leads to solutions that are unprofitable and do not empower smallholder farmers.

In terms of financial services, the availability and the cost of ICT infrastructure is a major challenge for financial institutions. In Ghana, this is particularly a concern because not only is network availability

[8] Intermedia, Financial Inclusion Insights, 2015

[9] CGAP, 2015, Financial Inclusion Insights Data

[10] Ghana: 18% rural vs 23% urban | Kenya 62% rural vs 75% urban | Tanzania 54% vs 79% urban

[11] AGRA, 2016, “Digital Harvest” business models: What’s working and what’s not?

an issue, but there is also no mobile network interoperability. This makes it necessary to work with aggregators to bring the different MNOs into one switch that communicates with the end users, which adds on to the costs. According to interviews, it is expected that interoperability will be introduced towards the end of 2017, but many are of the view that it will happen much later.

Whereas digital payments and savings have gathered some traction in Kenya and Tanzania, input finance continues to be an issue across the three countries. A major challenge faced by financial institutions is the lack of data on smallholder behaviour and lack of expertise within financial institutions to design appropriate products. To address the data gap there are emerging enterprises, especially in Kenya, in the form of farmer management systems (e.g. EPROD, iProcure, Virtual city) which have been collecting data on farmers over the last few years. The use of aggregators to collect electronic data on smallholder farmers is also growing as a practice, although data quality is still an issue. Where data is available, there is still a need to increase capacity within financial institutions to use data to segment customers and design the right products.

The digital agriculture insurance market is also still in its infancy. More progress has been noted in Kenya and Tanzania, as compared to Ghana, given the proliferation of mobile money. A major challenge faced by providers, however, has been a lack of reliable weather data to price the products accurately as well as low uptake among smallholder farmers. The low uptake is due to a lack of trust in insurance providers (due to past experiences) and low levels of financial literacy.

With these challenges in mind, the interventions supported by AGRA through FISFAP remain highly relevant to supporting smallholder agriculture in the three focus countries.

2.2 AGRA

AGRA was established in 2006 with the objective of catalysing and sustaining inclusive agricultural transformation in Africa, promoting food security and ultimately lifting millions of people out of poverty. The organisation has three core functions:

1. **Program Development and Innovation:** AGRA implements initiatives that are aimed at helping smallholder farmers improve the productivity of their farms.
2. **Grant making:** AGRA identifies and supports other organizations to implement projects that will help AGRA achieve their overall objectives.
3. **Country Support and Policy Engagement:** AGRA works closely with national governments, development partners, and other key agriculture sector players in each country to ensure that interventions are aligned with country priorities and that national policies are in place to support these interventions.

AGRA has recently finalised their new five-year strategy for 2017 – 2021, which is based on lessons learnt over the first eight years of AGRA's existence. Going forward, AGRA will take a more integrated approach to their program implementation to deliver more holistic solutions for agricultural transformation. The new approach will focus on three key strategies:

1. Catalysing an agricultural transformation in key agro-ecological zones on the African continent
2. Unlocking the value of private and public sector investments to sustain an agricultural transformation
3. Developing capacities and capabilities that will strengthen and sustain the foundation for African agricultural transformation

2.3 OVERVIEW OF FISFAP

FISFAP is a grant making initiative managed by AGRA that seeks to support private enterprises, such as financial services providers, value chain actors, and mobile network operators, to develop, pilot and roll out appropriate and affordable financial and non-financial solutions for smallholder farmers.

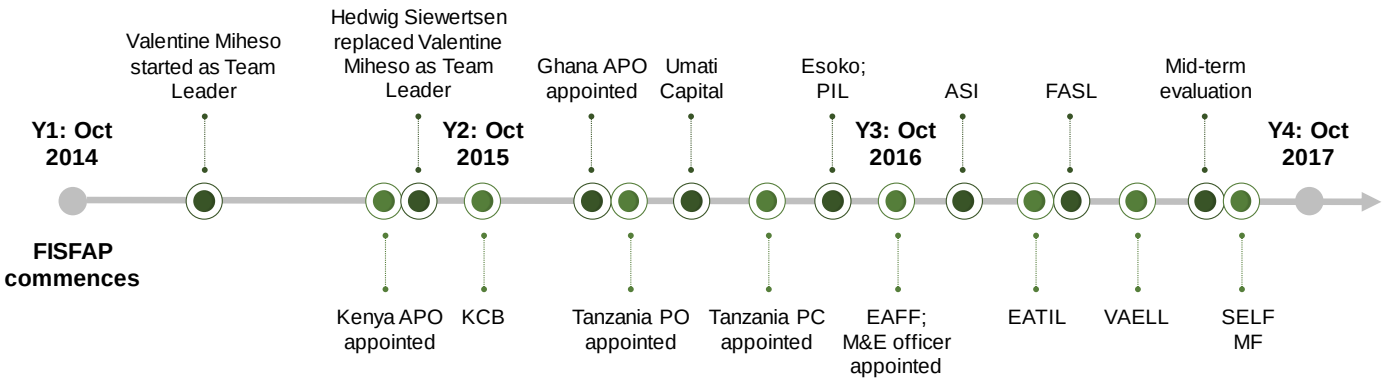
The program is being implemented in three countries: **Kenya, Ghana and Tanzania**. These countries were selected because of their enabling environments for innovation, which includes policies that enable the private sector to innovate, good network coverage, human capital, and a willingness of the population to adapt to new technologies and innovation. Furthermore, AGRA had already conducted a significant amount of work in these three countries, had strong networks already established, and good working relationships with the host governments.

The project seeks to improve the productivity and incomes of 728 000 small holder farmers, as follows: 208 000 in Ghana, 208 000 in Kenya, and 312 000 in Tanzania.

2.3.1 FISFAP timeline

The figure below depicts the timeline of FISFAP from inception to date, documenting the appointment of FISFAP team members and when the selected FISFAP partners commenced activities. It is clear from the timeline that there have been delays related to staffing the project, which in turn has led to delays in the selection of partners. The first partner (KCB) only commenced its activities at the start of Year 2, while the majority of partners only came on board towards the end of Year 2 and during the course of Year 3.

Figure 2: FISFAP timeline of events



2.3.2 Theory of change

2.3.2.1 Theory of change revisions

The FISFAP theory of change (TOC) underwent a complete overhaul after Hedwig Siewertsen was appointed FISFAP team leader, and these changes have given the project much more

strategic direction than the original TOC as documented in AGRA's initial proposal to Mastercard Foundation.

The original TOC and approach, depicted in the figures below, provided little in the way of guidance and was focused almost entirely on capacity building for smallholder farmers and value chain actors. The AGRA proposal to Mastercard Foundation states:

> *"The primary logic for the FISFAP model is that addressing the capacity gaps in the agricultural and financial value chains systematically is key to attracting finance, and increasing smallholder farmers' productivity as well as incomes."*

Figure 3: Original FISFAP theory of change

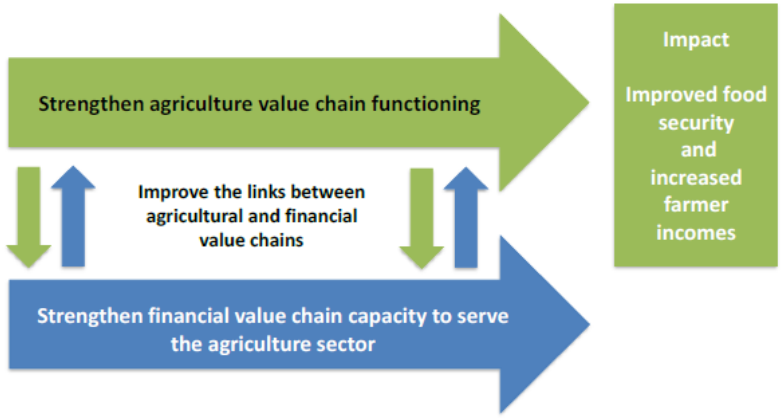
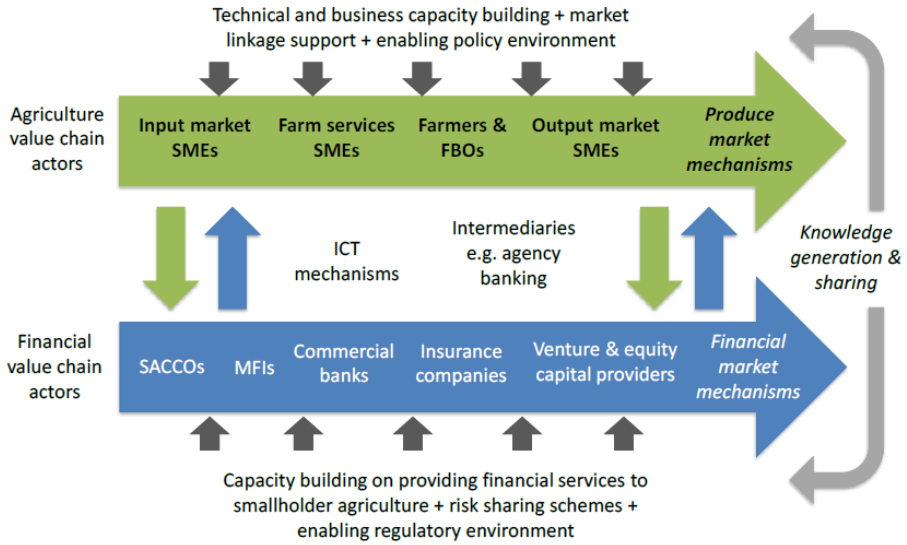


Figure 4: Original FISFAP approach



While the above figure alludes to "ICT mechanisms" and "Intermediaries e.g. agency banking", there is no clear structure as to what the FISFAP intervention would look like in practice.

When Hedwig Siewertsen was appointed team leader, she brought a wealth of financial inclusion expertise to the project, and provided a great deal more strategic direction. A year into the project, the FISFAP objectives were revised to focus instead on access to pre- and post-harvest financial and non-financial services, and the TOC was redesigned in line with the pre- and post-harvest focus. The

change in FISFAP objectives is depicted in the table below and the revised TOC is discussed in the following sub-section.

Table 1: Change in FISFAP objectives

Original objectives	Revised objectives
Improve the **capacity** of smallholder farmers and value chain actors **to access financial and non-financial services**	Increase smallholder farmers' **agricultural productivity** by providing them **access to pre-harvest financial and non-financial services**
Improve the **capacity** of partner institutions **to deliver financial and non-financial services** to smallholder farmers and value chain actors	Increase smallholder farmers' **income** by providing them **access to postharvest financial and non-financial services**
Improve innovation generation and uptake by stakeholders in financial and non-financial services delivery	Improve product and services offering through innovation generation and uptake by financial and non-financial services providers and smallholders
Improve the scale up of proven financial inclusion models and approaches through research, documentation & dissemination	Contribute to the scale up of proven value chain finance models and approaches through research, documentation & dissemination

These changes were documented in October 2015 as the new FISFAP strategy and approach. This document states the following:

> *"The Theory of Change for FISFAP is that the facilitation (linking, funding and training) of service providers (financial and non-financial) in the improved delivery of affordable and appropriate services to smallholder farmers and adoption of proven innovations will lead to improved pre- and post-harvest services delivery to farmers. When farmers have access to inputs, knowledge, markets, storage and value addition technology they can improve their food security and/or income"*

It is clear that there is a substantial difference between the initial program logic and the revised logic documented above. While the initial program logic posited that capacity building was sufficient to facilitate access to finance for smallholder farmers, the revised logic focuses on providing technical and financial assistance to service providers so as to improve service delivery to smallholder farmers and ultimately contribute to improving their productivity and income. **The shift away from AGRA-implemented capacity building activities to supporting private enterprises was an important move towards the objective of achieving sustainability of the intervention beyond the grant period.**

The FISFAP budget was also adjusted in line with this change, shifting resources away from the proposed capacity building activities towards grant-making and knowledge dissemination with the aim of generating sustainable and systemic change. This shift was necessary to support the new strategic direction, and will be discussed in greater detail in *Section 4.2.3.4: Cost sharing arrangements*.

2.3.2.2 Theory of change narrative

The revised FISFAP TOC, taken from the programme's Monitoring, Evaluation and Learning (MEL) Plan (2017), is depicted in the following figure and described in detail below. The TOC outlines the envisaged logical pathways from AGRA and FISFAP partner activities, to the desired short- and long-term outcomes and impact of the programme.

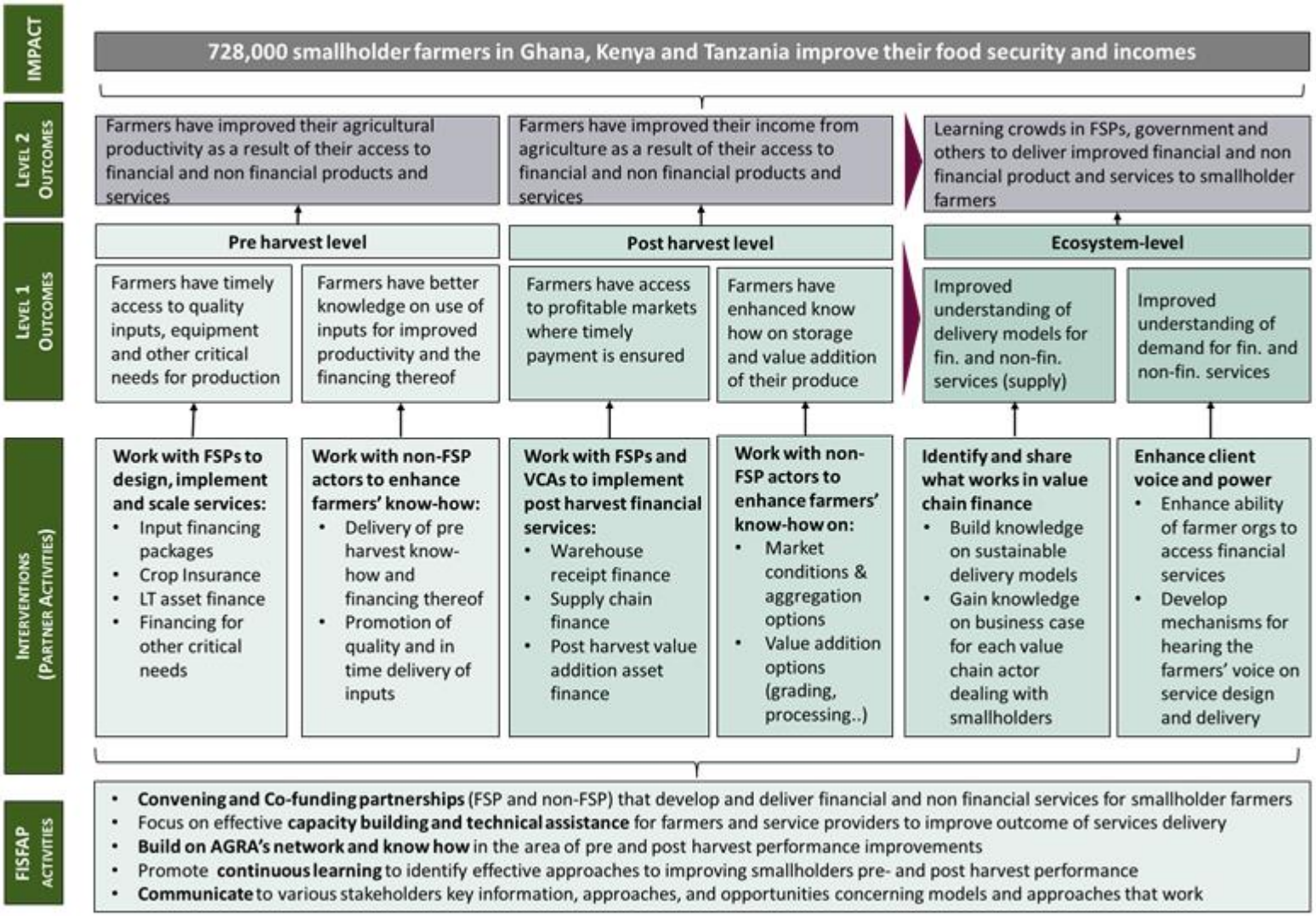
Through FISFAP, AGRA will convene and co-fund partnerships with private enterprises (both financial service providers [FSPs] and non-FSPs) to intervene at various points along the value chain by developing and offering innovative solutions that facilitate access to financial services for smallholder farmers and agri-SMEs. AGRA will offer technical assistance to the FISFAP partners in developing their solutions and addressing challenges that arise during implementation, while FISFAP partners will offer capacity building to farmers and service providers to ensure sufficient understanding and subsequent uptake of the solutions offered. This includes financial literacy training and educating farmers around GAPs.

In addition to these direct activities, AGRA will also facilitate ongoing learning and knowledge dissemination to identify the best approaches to improving pre- and post-harvest performance of smallholder farmers. FISFAP partners will feed directly into this process, generating evidence around what works and what does not work in value chain finance for smallholder farmers, both from an implementing partner perspective as well as the beneficiary (client voice) perspective.

The desired outcomes of these direct activities are that smallholder farmers and agri-SMEs have access to critical financial services that can improve their productivity and operations at various points along the value chain, and that they have improved knowledge of GAPs and the financing thereof. The desired outcomes of the indirect activities, on the other hand, are that service providers have a more informed understanding of the demand for financial and non-financial services along the agricultural value chain, so that they can better serve their target market.

Ultimately, FISFAP aims to improve the productivity of smallholder farmers and their income generation potential, so that they have greater food security and increased income. The program also aims to crowd FSPs and non-FSP into the agricultural value chain so that this impact is sustained into the future.

Figure 5: FISFAP Theory of Change



2.3.2.3 Underlying assumptions

The assumptions underlying the FISFAP TOC, as articulated in the project's MEL Plan, are outlined in the table below:

Table 2: Assumptions underlying the FISFAP Theory of Change

#	Assumption	Rationale
1	Use of inputs and mechanization improve agricultural productivity.	Apart from natural disasters, research and AGRA experience tells us that if access to inputs is accompanied with training on improved agricultural practices, weather info and (yield or drought) insurance products this holds true.
2	Mobile networks and digital financial services can expand in the 3 countries	The 3 countries of operations have enabling policies and regulations allowing for expansion of digital financial services including mobile money.
3	Improved agricultural productivity leads to more income and food security	This requires that farmers access markets and storage solutions and that there are no negative government interferences (e.g. produce export bans). AGRA works closely on these issues to make sure food can be stored and excess produce can be sold.
4	There are implementing partners in the 3 countries who are interested to specifically target smallholders with their existing or to be developed service offering	Smallholder farmers represent a large (potential) client group, though with low purchase power capacity. We assume there is enough competition among value chain actors and financial services providers so that smallholder farmers are seen as a potential client group.
5.	Anticipated uptake of alternative delivery channels and digital solutions is good and growing.	The project will ensure that financial and digital literacy training is part of the projects in order to improve uptake especially by women. The proposed HCD support also aims to improve uptake by farmers with a special focus on women.

After an interrogation of the FISFAP TOC, the evaluation team suggests that there are a few additional assumptions underlying the TOC. These are provided in the table below:

Table 3: Additional assumptions underlying the FISFAP Theory of Change

#	Assumption	Rationale
6	Sharing of knowledge and lessons effectively reaches other market actors, who go on to apply it in their own programs, businesses and policies.	If correctly targeted (based on market actor knowledge gaps and through the right channels) and based on sound evidence of business cases and impact, information will reach and influence market actors' approaches.
7	Smallholder farmers are willing to try new methods, processes, and financing options.	Research and experience from other programs has shown that, with correct market segmentation, support, training and incentives, farmers take up innovative solutions.
8	Women have agency and are able to make use of the products and	Gender dynamics in the target communities that limit the resource ownership potential of women, and therefore the

	services made available through FISFAP.	uptake of products and services by women, are identified and addressed through the product/service design.
9	Exposure to just one FISFAP partner solution is sufficient to increase farmer productivity and incomes.	This is an implicit assumption in the TOC, however, AGRA is committed to connecting FISFAP partners with each other and other AGRA initiatives, which ensures that the target smallholder farmers access complimentary solutions along the value chain that collectively help to increase farmer productivity and incomes.
10	Solutions, and businesses, are financially sustainable resulting in demonstration effects and further crowding in.	It is a high priority for FISFAP that the partners prove the business case and financial sustainability of the solution. This has not been explicitly stated in the theory of change.

Given that the project is still in its early stages of implementation, it is not yet possible to determine the validity of all of these assumptions and the extent to which they are affecting the project's achievement of objectives. This interrogation will have to be conducted at the end of the grant period.

2.3.3 FISFAP partners

The following table depicts the FISFAP partners (as at 30 June 2017) that have received support from AGRA to develop, pilot or scale their solutions:

Table 4: List of FISFAP partners

Country	Organisation name	Pre-harvest/post-harvest	Type of solution
Kenya 	Kenya Commercial Bank (KCB)	Pre-harvest and post-harvest	End-to-end digital platform
	Umati Capital	Post-harvest	Supply chain finance
	East Africa Farmers Federation (EAFF)	Pre-harvest and post-harvest	End-to-end digital platform
	Vehicle and Equipment Leasing Limited (VAELL)	Pre-harvest	Mechanisation services
Ghana 	Esoko	Pre-harvest	Input layaway scheme
	Agribusiness Systems International (ASI)	Pre-harvest	Mobile banking
	First Allied Savings and Loans (FASL)	Pre-harvest	Agency banking
Tanzania 	Positive International Ltd (PIL)	Pre-harvest	Input layaway scheme
	ETC Agro and Implements Ltd (EATIL)	Pre-harvest	Mechanisation services
	SELF Microfinance	Pre-harvest and post-harvest	Income smoothening input finance and warehouse receipt system

2.3.4 Pipeline

The following table depicts the organisations (as at 30 June 2017) that are in the FISFAP pipeline. AGRA plans to finalise the portfolio of partners by the end of September 2017 (the end of Year 3 of the project):

Table 5: Pipeline of potential FISFAP partners

Country	Organisation name	Pre-harvest/post-harvest	Type of solution
Ghana 	Trotro	Pre-harvest	Mechanisation services
	Success for People and Nfortics	Post-harvest	Supply chain finance (warehouse based)
	Ecobank and OCP	Pre-harvest	m-Savings schemes for fertiliser
	Advans savings and loans company	Pre-harvest and post-harvest	Rural outreach strategy (products and distribution)
Tanzania 	Rice Council of Tanzania in collaboration with ACRE Africa	Pre-harvest	Crop insurance
	IDH	Learning	Complementarities between cash crop and food crop support systems
	Quincewood	Pre-harvest	Electronic verification technology

2.3.5 Learning component

FISFAP has a strong commitment to learning and sharing knowledge with the sector to advance the agricultural finance and innovative finance ecosystems more broadly. As part of the learning agenda, FISFAP has commissioned six studies:

- Sustainability and uptake of ICT4Ag solutions
- Alternative data usage for credit scoring
- Review of AGRA's finance portfolio and value proposition of AGRA
- Improved retail strategy for a seed replanting insurance scheme
- Impact study with Umati Capital in Kenya (incomplete)
- Impact study with Esoko in Ghana (incomplete)

The completed studies have been shared publicly via the Rural and Agricultural Finance (RAF) Learning Lab as well as the AGRA website. Additionally, AGRA hosts learning events for its partners to come together and share and workshop ideas. AGRA hosted a FISFAP partner workshop in December 2016 for all their partners, and a focused learning event in June 2017 for their mechanisation partners.

3 EVALUATION APPROACH AND METHODS

3.1 EVALUATION FRAMEWORK

The evaluation was based on an evaluation framework that guided the development of data collection tools and subsequent stakeholder consultations. The framework was also used to interpret and analyse the evaluation findings, thus ensuring objectivity and consistency throughout the evaluation process. Genesis use the OECD Development Assistance Committee (DAC) criteria of relevance, effectiveness, efficiency, impact, and sustainability as the guiding framework for the evaluation. Under each of these criteria, key learning questions were developed to unpack and interrogate FISFAP's structure, approach, TOC, emerging impact and lessons learned. The learning questions were also mapped to Mastercard Foundation's Learning Framework.

3.2 DATA COLLECTION METHODS

The evaluation used qualitative and quantitative data collection methods, where primary data collection was predominantly qualitative, but was triangulated against secondary quantitative data collected from AGRA and FISFAP partners.

3.2.1 Document and data review

As part of the mid-term evaluation, Genesis conducted an extensive document review that fulfilled three goals:

1. High-level assessment of the achievements of the project;
2. Consolidation of FISFAP research in an effort to develop an inventory of key lessons learnt, and;
3. Identification of gaps in the project, which could then be further explored and validated with stakeholders during the key informant interviews.

The document review included an analysis of all relevant project-level documents provided by AGRA to Genesis. A full list of the documents and data that were reviewed are presented in *Appendix 3: Documents Reviewed.*

3.2.2 Key informant interviews (KIIs)

The evaluation relied heavily on a series of interviews with key informants, conducted both in-person and telephonically. The key informants were categorised according to different stakeholder types, namely i) The FISFAP program team, including representatives from AGRA and Mastercard Foundation; ii) FISFAP partners and sub-partners; iii) the RAF Learning Lab; and iv) external stakeholders. These categories, as well as the purpose of the engagements with them are summarised in the table below. A full list of stakeholders consulted as part of the evaluation is provided in *Appendix 2: Stakeholders Consulted.*

Table 6: KII stakeholder groups

Group	Purpose
AGRA personnel	• To gain insight into the implementation and performance of FISFAP and how it can be improved.

MasterCard Foundation representatives	• To gain insights on what need FISFAP meets, achievements and challenges of the program to date and how FISFAP aligns to the broader mandate and learning agenda of the Foundation.
FISFAP partners and sub-partners	• To develop an understanding of the partner organisation's experience in engaging with AGRA and FISFAP. • To gain insights on the partner's experience in the agricultural finance sector. • To understand what contributes to, or detracts from successful partnerships. • To assess the extent to which partners are meeting the needs of the target group and implementation success to date.
RAF Learning Lab	• To develop an understanding of how FISFAP contributes to the broader mandate and learning agenda of Mastercard Foundation and how greater benefit can be derived through AGRA's partnership with the Learning Lab.
External stakeholders	• To gain insights into the agricultural finance sector in Ghana, Kenya and Tanzania. • To gather their perspectives about what has been distinctive and innovative about FISFAP • Understand what activities and innovations are being implemented and explored by others in the market.

3.2.3 Site observations

The evaluation team was able to observe the agency banking project by FASL in Ghana, and to visit the lead farmers in the mechanisation project implemented by EATIL in Tanzania. The site visits provided the team with the opportunity to gain a practical understanding of the day-to-day functioning of how the FISFAP partners' products and services are being used in both rural and urban settings, and to gain a sense of the quality of the interactions between the agents and their beneficiaries. The FASL observations provided insights into the agent recruitment and selection process, the effectiveness of the training provided by FASL, the products and services offered, as well as any areas of improvement.

Table 7: Summary of site observations

FISFAP Partner	Site visited	Location	Date
FASL	5 Agency banking branches[12] branch	Ghana	8-10 August 2017
EATIL	2 Lead farmers	Iringa, Tanzania	9 August 2017

3.2.4 Focus group discussions (FGDs)

Structured FGDs were also held with a sample of FISFAP beneficiaries under the Esoko Tulaa project.[13] The purpose of the FGDs with farmers was to gain insight into their experiences with the

[12] The branches visited include Kumasi,Tamale, Sangake and Savguli in Ghana.

[13] The evaluation team was not able to conduct additional FGDs with the beneficiaries of other grantees given their stage of rollout and not wanting to duplicate farmer-facing research already completed as part grant implementation. The team was also advised not to travel into rural parts of Kenya at the time the evaluation was conducted, due to the potential for election-related protests.

Tulaa platform and to explore the potential impact of their participation in the program on their farming activities, productivity and incomes.

More specifically, the evaluation team sought to understand:

i. The beneficiaries' perspective of the constraints that they face in relation to their farming activities, access to finance and markets
ii. The role FISFAP plays in overcoming the constraints faced by smallholder farmers and providing them with the necessary products and services that address pre-season and post-harvest constraints;
iii. Whether FISFAP has contributed to any changes in productivity and income; and
iv. If FISFAP addresses any gender specific barriers that prevent men or women from accessing financial services or from performing farming activities.

The evaluation team conducted two FGDs in Saakpuli, Northern Ghana with 8 beneficiaries each under the Esoko Tulaa project, using a structured guide to lead the conversation.

FGD participants were selected based on sex, level of engagement with the Tulaa platform and location. The FGDs were conducted in English and Dagbane to accommodate the participation of all beneficiaries. Prior to the discussion, the beneficiaries were made aware that their participation was voluntary and confidential. The feedback emerging from the FGDs have been integrated into the findings and analysis presented in the report.

3.3 OBSERVATIONS FROM FIELDWORK

The following section outlines the successes and challenges that the evaluation team has encountered thus far in undertaking the fieldwork for this evaluation.

The data collection has been fairly successful for a number of reasons outlined below:

- The AGRA country staff have responded positively to the evaluation and have assisted the evaluation team in setting up interviews with partners and providing data timeously.
- The key informants interviewed have been candid with their responses, which has resulted in a transparent and open interview process. Direct insights have been shared on the effectiveness and efficiency of FISFAP, its relevance, and AGRA's work in relation to the broader agricultural sector and learnings arising from the project. This enabled informed recommendations on how to improve the project going forward.
- The use of tailored interviewed tools based on the stakeholder profiles and their interaction with FISFAP enabled interviewees to provide comprehensive responses to each evaluation question. This was particularly important for external stakeholders who had valuable insights on the work of FISFAP.

The following are some of the challenges experienced by the evaluation team thus far, some of which resulted in delays in the data collection process:

- While the AGRA staff facilitated timely introductions between the evaluation team and the FISFAP project partners, some delays were experienced with respect to the responsiveness of ASI sub-partners such as EcoBank, Dalex and Capital Bank in Ghana. The evaluation team arranged for these meetings to be rescheduled telephonically but have not received a response from the partner institutions, despite follow ups by the evaluation team.
- The evaluation team conducted FGDs with beneficiaries from the Esoko Tulaa project, which has piloted its platform. However, given the stage of implementation of most partners, the evaluation team was unable to conduct more FGDs as most partners have not yet rolled out the products and services to a significant number of beneficiaries.
- There has been a low response rate from partner organisations in providing financial data to the evaluation team to assess financial sustainability of the FISFAP-funded solutions, due to hesitancy in sharing sensitive financial information.

Despite the challenges discussed above, the evaluation team does not feel that these have materially impacted on the validity and comprehensiveness of the analysis and conclusions that are presented in the evaluation report as the data gathered was triangulated across multiple data sources.

4 FINDINGS AND ANALYSIS

4.1 PROGRESS AGAINST TARGETS

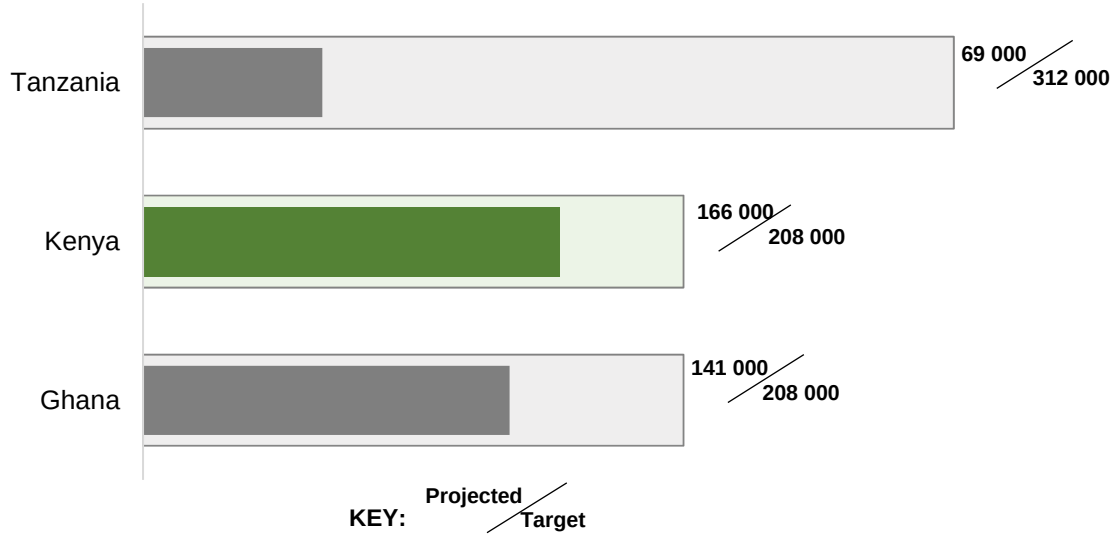
This section provides an assessment of FISFAP's progress against the set targets of Mastercard Foundation's grant, a cumulative assessment of the FISFAP partners' targets, an analysis of the drivers and detractors of success, and how FISFAP can expand its reach so as to meet the intended outreach target.

4.1.1 Country-specific targets

FISFAP aims to reach 728 000 smallholder farmers: 208 000 each in Ghana and Kenya and 312 000 in Tanzania. Thus far, achievement of targets per country has been slower than expected due to delays in implementation, including recruitment delays at inception and lengthy grant development and approval procedures. In addition to this, partner organisations are required to pilot their products and services and redesign this if need be, which also takes time and achieve minimal reach. Based on the sum of the projected number of smallholder farmers to be reached by each partner in the individual country portfolios, the expected country-level achievements will be approximately 77%, 68% and 22% in Kenya, Ghana and Tanzania respectively.

The figure below depicts the status of the FISFAP's potential achievement (based on what has been committed to in the grant agreements) against its country-specific targets:

Figure 6: Projected achievement of country-specific targets[14]



The performance of each country is discussed below:

- **Kenya:** There are five partners in the FISFAP Kenya country portfolio: KCB was the first partner and has subsequently completed their pilot; EAFF, Umati Capital and VAELL are current partners; and ACRE Africa will soon be coming on board as a grantee. Of the current partners, only Umati Capital and EAFF are in the piloting stage of implementation while VAELL has only recently signed its partnership agreement. Based on the expected performance against targets for these three partners, the evaluation team expects that Kenya will meet or exceed its target. This target is achievable as partners such as EAFF work with farmer-based organisations and can easily reach a large number of farmers. A member of the EAFF team shared that the organisation has set a target of 300 000 farmers, which they think could be reached as they are actively dedicating resources such as fieldworkers to mobilise farmers to register onto the e-Granary platform. The projected target for Kenya also includes the KCB pilot numbers achieved. The KCB Mobigrow solution is now being scaled with direct funding from Mastercard Foundation (and is thus not included under FISFAP).

[14] It is currently not possible to include achieved numbers to date, as these are small and would appear negligible in the graph.

- **Ghana:** There are three partners in the FISFAP Ghana country portfolio- Esoko (Tulaa), and FASL, who are in the piloting phase of implementation, and ASI. However, it is important to note that the ASI team reported that while they have registered farmers onto their platform, they are yet to roll out payments to the farmers. If all partnerships meet their targets, approximately 68% of the country target will be met. The difficulties in reaching the targets can be attributed to the nature and size of the partner projects currently in the FISFAP Ghana country portfolio. In light of this, the AGRA team is committed to expanding the portfolio to reach targets and has three potential partners in the pipeline.

- **Tanzania:** Given that Tanzania has the highest country target and lowest projection of targets, the evaluation team thinks it is unlikely that Tanzania will meet or exceed its target. In response to this, the FISFAP team is actively seeking to expand its current country portfolio and has a number of partners in its pipeline such as ACRE Africa, IDH and Quincewood, which have the potential to assist Tanzania to meet or exceed its targets in terms of reach.

Based on the above, we conclude that while the project is still in its early stages of implementation there may be some difficulties in reaching the target numbers in all three countries at the end of the five-year implementation period. Overall, the targets are very ambitious and the country targets were set using a loose calculation which did not take into account the specific country contexts. Kenya's country target should be higher than the other two countries given the development of the agricultural finance sector and the prevalence of digital financial solutions. However, the FISFAP team reported that they are focused more on the overall target number, and so is flexible about which country the achieved numbers come from.

4.1.2 Cumulative assessment of current FISFAP targets

The table below illustrates the cumulative achievement against the Year 3 FISFAP targets, as reported to Mastercard Foundation.

Table 8: Cumulative FISFAP results

Indicator	Y3 Actual	Y3 Target	Deviation from target
Number of SHFs that have accessed pre-harvest financial products	67 631	50 000	35%
Value of pre-harvest services extended to SHFs (USD)	722 998	1 000 000	-28%
Number of farmers trained on pre-production financing options	5 685	50 000	-89%
Number of SHFs trained on good agricultural practices	838	50 000	-98%
Value of post-harvest loans disbursed to SHFs	572 901	1 000 000	-43%
Number of SHFs trained on post-harvest financial options	951	50 000	-98%

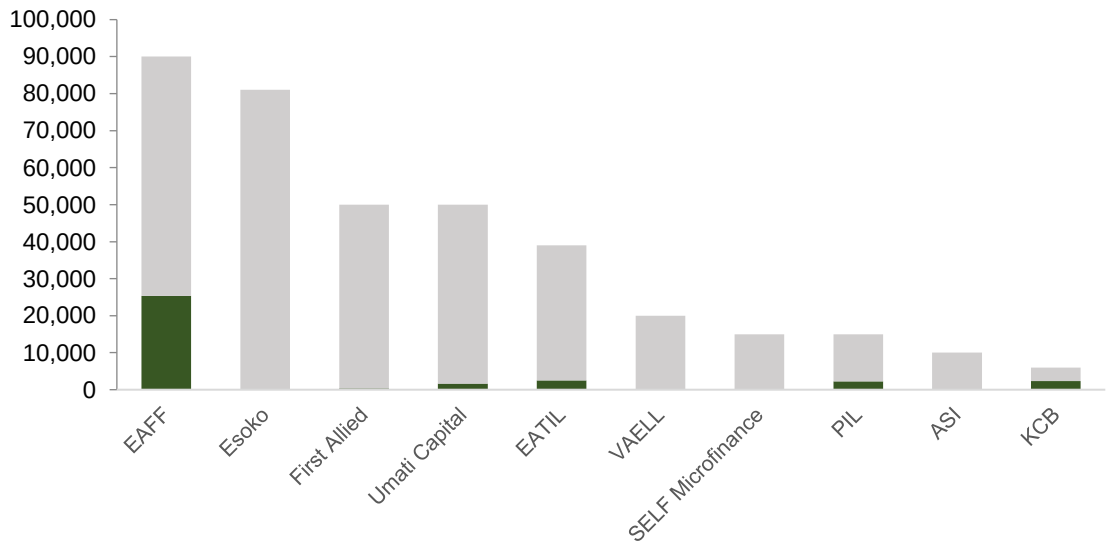
Number of farmers trained on post-harvest management practices	951	50 000	-98%

Key: 0-39% | 40-79% | 80-100%

From the table above, the current FISFAP partner portfolio is currently not reaching their annual targets, apart from the number of smallholder farmers that have accessed pre-harvest financial products, which has exceeded target by 35%. **It is difficult to deduce the success of the program in achieving its targets as the majority of the partners are still in the pilot phase of implementation**. During interviews with partner organisations, we found that partners are optimistic that their interventions will reach the targets within a reasonable period of time, however this may not occur within the grant period. The initial months of implementation are dedicated to piloting and redesign of the solutions, which in turn affects reach as the farming season is not all year-round. Using the current data, it is highly unlikely that the program targets will be met within the five-year implementation period. A no-cost extension of the FISFAP grant or expanding the partner portfolio would reduce the pressure on the current partners from a target perspective.

The figure below provides an overview of the targeted numbers of farmers reached, per partner, as well as achievement of those targets to date.

Figure 7: Achievement of farmer reach targets per partner



The impact objective of FISFAP speaks to influencing food security, productivity and incomes of smallholder farmers. During KIIs and FGDs, the evaluation team observed that although the interventions address the pre- and post-harvest financial and non-financial needs of smallholder farmers, there is a heavy focus on reach. **It would be valuable for the FISFAP team to analyse the adoption and usage of the products and services offered to smallholder farmers**. This can be achieved by strengthening farmer sensitisation and training so as to influence the farmers' use and engagement with the solutions being offered.

4.1.2.1 FISFAP Gender-related outcomes

AGRA is committed to identifying and addressing the specific needs of women smallholder farmers across the FISFAP value chains of focus as the majority of smallholder farmers are women.[15] Despite this, the evaluation team found that FISFAP does not require grantees to achieve and report on gender-differentiated targets. FISFAP places greater emphasis on building farmers' resilience through a financially sustainable solution, and the funding of private enterprises means that it is difficult to impose hard gender targets on them if they do not see a commercial case for doing so.

There is varying commitment by partners to actively address the unique constraints that female smallholder farmers face. Across all three target countries, FISFAP partners shared that one of the challenges that female smallholder farmers face in participating in digital-based financial interventions is the lack of a mobile phone or management of household finances. Some partners, such as Esoko in Ghana and EAFF in Kenya are actively redesigning their individual projects to contribute towards tailoring approaches that meet the needs of female smallholder farmers. For example, Esoko has identified the lack of mobile phone ownership for women as a constraint to women accessing the Tulaa platform and introduced a competition enabling farmers to win mobile phones. Taking into account that this solution is not sustainable, Esoko plans to introduce two potential solutions. These are to offer female farmers mobile phones in exchange for crops or providing a chip option where farmers that cannot afford to purchase a phone can use a chip when Esoko fieldworkers are in their communities to access the platform. **Given that majority of smallholder farmers are women, it is important for partners, where possible, to attempt to address the gender-related social, economic and cultural barriers that women face in relation to access to financial services, and this should be encouraged by FISFAP.**

4.2 PARTNER SELECTION AND SUPPORT

4.2.1 FISFAP partner selection process

As per the document review, the first step made by FISFAP in the selection of partners was to commission a needs assessment across all three countries, which was conducted by Dalberg in 2015. Partners are selected using a common set of criteria:

- Proof of financial and non-financial products or services that have been developed and require supporting investment to test, scale and build the sustainability of the product or service targeting smallholder farmers in the value chains and locations of focus;
- Level of ownership and commitment of partners to lead the development and implementation of the proposed project and account for results;
- Co-financing agreement of the project; and
- Investment of the organisation in digital technology platforms or channels of delivery.

These criteria are relevant in selecting partners; however, the evaluation team found that there are variations in the processes used to select partners in the individual FISFAP countries. For example, in Kenya, AGRA hand-selected potential FISFAP partners through its strong network of partners in the agricultural space that fit the selection criteria mentioned above. Additionally, these partners were selected based on the innovative nature of their concepts, progress and commitment in developing their solutions. This selection process was informed by the development of the Kenyan market in relation to financial service providers (FSPs) being competitive and involved in serving the agricultural

[15] AGRA Financial Inclusion Project Proposal to Mastercard Foundation, 2014.

sector, as well as the use of digital tools such as mobile platforms and M-Pesa to enhance financial inclusion. In Ghana and Tanzania on the other hand, a request for concept notes was sent out through service providers and the media inviting potential partners to attend an information session led by the FISFAP team. Taking into consideration the implementation delays of FISFAP, AGRA's approach to have a more flexible approach in the selection of partners across the three countries has allowed the FISFAP project to be more selective and save time in the partner selection process.

The establishment of strategies such as a flexible partner selection process is important to ensure that the grant making process and implementation of the program are on track. The evaluation team finds that the partner selection approach used by AGRA is suitable and has produced a good partner portfolio that has a sufficient level of diversity as there is no duplication in partner solutions in the same markets. Additionally, AGRA's stringent grant development and approval process validates the partner selection process and overrules any potential partiality.

Box 1 below is an example of how the adoption of a flexible partner selection criteria and process according to a specific country context is relevant in selecting partners. This allows AGRA to ensure that suitable partners are engaged and better enables the achievement of country targets and FISFAP objectives.

Box 1: The case of Ghana

The FISFAP project in Ghana currently works through mobile network providers, financial institutions and value chain actors in two strategic areas – Tamale and Accra. In addition to the general partner selection criteria, Ghana has two different groups of potential partner characteristics that guide the expansion of the current portfolio:

Group 1: Partners with a concept for innovative financial and non-financial products and services or delivery channels; proof of experience in delivery financial products and services to smallholder farmers; little to no experience in regions of focus but potential to branch out; and ICT non-financial providers.

Group 2: This includes concepts from technical service providers, NGOs and consultancy firms with funding requests with no experience in developing and delivery of financial products and services, or no presence in the AGRA focus regions. FISFAP is looking to provide technical assistance to the second group of partners

Additionally, FISFAP in Ghana seeks to expand the current partner portfolio by providing short-term technical assistance to private enterprises.

4.2.2 Alignment of portfolio of partners to the FISFAP TOC

Taking into consideration the current portfolio of FISFAP partners, the project has the potential to influence the productivity and incomes of smallholder farmers in Ghana, Kenya and Tanzania and is thus aligned to the FISFAP TOC. The evaluation team assessed the different types of pre- and post-harvest financial and non-financial interventions that the partners are offering smallholder farmers. FISFAP is addressing the needs of smallholder farmers by providing lay-away input mechanisms, aggregation of farmer transaction data for financial service providers so that they are better able to credit score farmers, leased mechanisation services, post-harvest support and non-financial products and services such as knowledge and training on good agricultural practices.

Thus far FISFAP has managed to create awareness of pre- and post-harvest solutions that farmers can access. To facilitate the achievement of impact, there is need for a holistic approach to address

the constraints that smallholder farmers face. The current partner portfolio has a diverse range of interventions that could be leveraged to increase farmer access to finance, inputs and markets. For example, linking Esoko and FASL in Ghana has the potential to connect farmers with the finance to purchase inputs to an already existing layaway scheme in the same region. **The current silos in the pre- and post-harvest solutions being offered by the portfolio of partners is expected as the FISFAP project sub-partners are still in the pilot phase of implementing their solutions. However, with the support of AGRA, partners can work together and provide relevant interventions.**

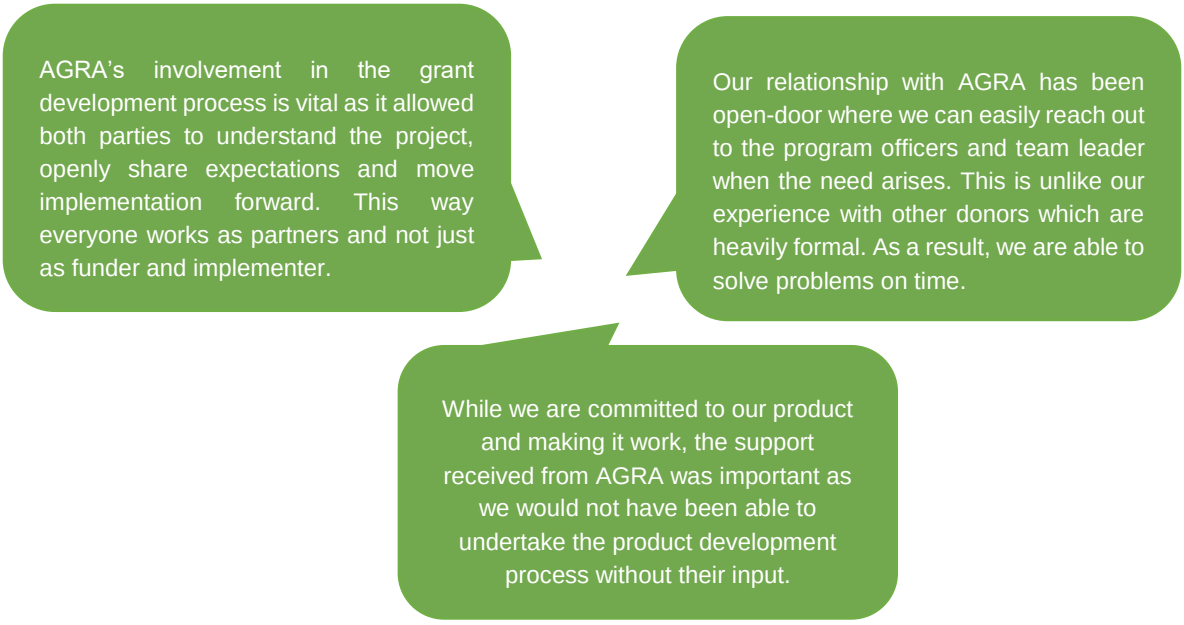
4.2.3 Relationship between AGRA and its partners

The relationship between AGRA and its partners is governed by the pre-defined grant agreement that states the scope of the project; grant amount and term; number of beneficiaries; project deliverables; and, monitoring and reporting expectations in relation to the set timelines.

4.2.3.1 Overall experience

The AGRA partners interviewed during the evaluation shared that they have a good relationship with AGRA and that they value the support provided to them in the form of proposal development, funding on a cost-sharing basis, networking and learning.

Figure 8: Partner responses of overall AGRA support



Source: Genesis Analytics, Key informant interviews with FISFAP partners, 2017

The figure above indicates partner attitudes towards the support received from AGRA. Overall, all partner organizations within AGRA's current portfolio are satisfied with the current relationship and support they are receiving from AGRA. Some partners shared that they are still in the early stages of implementation and would need additional technical support from AGRA, such as consultancy services to assist them in meeting their targets, improving product design and building a stronger business case. AGRA should tailor areas of development based on the partner's needs as this in an important step in ensuring the success and sustainability of the FISFAP program.

The evaluation team found that the key success drivers of these partnerships are as follows:

- **Alignment** between AGRA and its partners is important in ensuring that both parties are working towards a common goal: providing financial and non-financial solutions to improve the productivity and incomes of smallholder farmers. There is active commitment and effort being directed towards making sure the interventions are relevant to the needs of farmers and have a solid business case as the partners are for-profit organizations with an aim to continue implementing these interventions when assistance from FISFAP comes to an end.

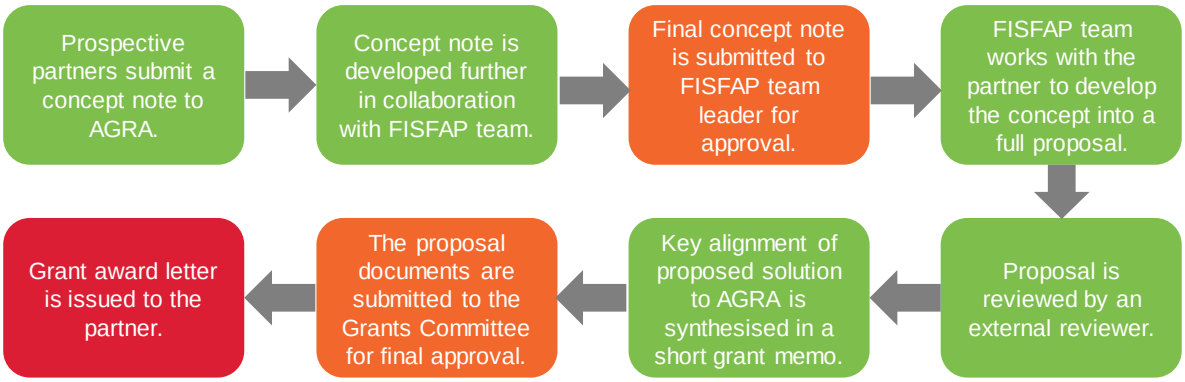
- **Open lines of communication** were noted as important to making partnerships successful as it allows both parties to share progress and address challenges in a timely manner. For example, a FISFAP partner in Ghana shared that the feedback received from the FISFAP team in the proposal development and implementation stages has been beneficial in assisting partners respond to any potential challenges.

- Given the different country contexts and delays that the FISFAP program has experienced, FISFAP's **flexibility** within grant agreements has contributed to their good working relationships with their partners. One AGRA staff member shared that while there are certain bureaucratic processes in place, allowing for changes in grant terms due to project delays ensures partners are able to deliver agreed targets in a specified period of time without compromising quality and impact of the products and services offered to smallholder farmers. For example, PIL in Tanzania has experienced delays in implementation due to changes in contracting and had to undertake a new grant development process that resulted in an extension in the grant term. On the other hand, Umati Capital has recently experienced challenges realizing targets and AGRA has offered to provide support in revising project activities and milestones while the grant department is engaged on not withholding the grant disbursements.

4.2.3.2 Grant development process

Overall, the evaluation team found that there is a strong support structure within the FISFAP team that assists partners during the grant development phase. This is driven by in-house expertise and the belief in ensuring strong alignment between AGRA and its selected partners. The grant approval process occurs in the following stages:

Figure 9: Grant development process



Source: Genesis Analytics, FISFAP document review and key informant interviews, 2017

As shown in the figure above, after receiving and approving concepts notes, AGRA conducts a rigorous proposal development process that involves the potential partner, FISFAP team and an external reviewer. This process is iterative and results in the development of a grant memo, budget, IPPT and project implementation plan. **The rigorous and iterative grant development process**

allows FISFAP to ensure that the partners are aligned to the objectives of Mastercard Foundation and AGRA. This also reduces the risks of partners being unable to successfully implement the program. Conducting measures such as due diligence and partner screening is also a factor that makes the AGRA grant process unique and is a potential success driver. However, partners interviewed shared that the grant development process, while beneficial and supportive, is time consuming and can take up to three months depending of the specific issues around a project. Going forward, AGRA should look at ways to make this process less time consuming while keeping the iterative process. In addition, while FISFAP assesses the suppliers and off takers of their partners, **they do not assess the buy-in or ability to implement of other grant-making sub-partners, which would be a useful exercise to better ensure quality implementation.**

4.2.3.3 Other AGRA support

- **The case of ACRE Africa**
  One of the key objectives of the partnership between AGRA and Mastercard Foundation is the learning and knowledge dissemination component of FISFAP, which aims to crowd other key stakeholders into the agricultural finance space. As part of this, FISFAP provided technical assistance to ACRE Africa through a grant to conduct client-focused research to enhance the uptake of their seed replanting guarantee product. Through the evaluation team's interviews with internal AGRA staff, MicroSave and the ACRE Africa team, this assignment added value to all parties and provided insights on how the usage of crop insurance products can enhance smallholder farmers' productivity. Despite this, there has been little knowledge dissemination on the findings of the research. Partner organizations such as EAFF expressed the need for assistance in including crop insurance onto their platform given the current influence of the droughts in Kenya on farmer's productivity. There is potential for the findings of this research to be integrated into other AGRA programs and, more importantly, shared with the partners within the FISFAP portfolio looking to include crop insurance in their product offering.

- **Networking**
  AGRA has to date been successful in playing a networking and convening role for its FISFAP partners and in disseminating knowledge and sharing learnings of the FISFAP project with the broader ecosystem. An example of this is the connection of EAFF to present their e-Granary project concept at the Zambezi prize and VAELL to share their mechanization project at the ICT4Ag conference. AGRA should continue developing this area of support at it can enable growth and improvements of the current interventions that the FISFAP partners are implementing.

4.2.3.4 Cost sharing arrangements

This section establishes the cost efficiency of FISFAP during its implementation. The change in FISFAP strategy, discussed above, allowed for the majority of the program costs to be directed towards grants, technical assistance and learning studies. This change in strategy has allowed for expansion of the partner portfolio and each partner is allocated a grant based on a cost-sharing agreement. Prior to the change in the FISFAP strategy, approximately less than USD 5 000 000 was allocated towards FISFAP grant making. The FISFAP grant making budget has significantly increased to approximately USD 7 536 783 for the five-year period, representing 49% of the total program budget, with hopes that this will be increased to 65% once the partner portfolio is expanded[16]. The partner funding contributions are dependent on a wide range of factors, including geographical reach of the project, number of farmers targeted with an average cost of USD 10 per farmer reached (which

[16] The remainder of the budget is allocated to employee wages, professional fees, travel costs, publications and printing

is not always applied), existing digital infrastructure and the policy environment. Where the area of implementation is considered more difficult, a higher budget is allocated to the partner. The table below assesses the cost-sharing agreements between AGRA and FISFAP partners, as well as the grant disbursements of the program to date.

Table 9: Grant disbursement and cost sharing as per June 2017

Partner name	Target number of farmers	Grant status	Total amount approved (USD)	Disbursement to date (USD)	% FISFAP Contribution
KCB	6 000	●	335 869	299 675	100%[17]
Umati Capital	50 000	●	500 000	250 001	6%
EAFF	90 000	●	830 213	201 328	18%
Esoko	81 000	●	867 788	268 554	32%
ASI-Tigo	10 000	●	594 981	102 009	34%
EATIL	39 000	●	517 280	71 100	70%
First Allied Savings and Loans	50 000	●	609 632	75 961	40%
PIL	15 000	●	400 000	40 500	82%
VAELL	20 000	●	500 340	-	47%
SELF Microfinance	15 000	●	568 000	-	88%
ACRE Africa	N/A	●	N/A	N/A	N/A
Total	**376 000**		**4 705 764**	**1 309 128**	

Source: AGRA

KEY:

●	Complete
●	Ongoing
●	Scheduled

One of the objectives of FISFAP is to scale up proven value chain finance models and approaches through research, documentation and dissemination. The change in the FISFAP strategy included a

[17] 100% of costs were covered by FISFAP, KCB's resource contribution was in-kind

budget reallocation from focusing on capacity building provided by AGRA to supporting partnerships and learning studies. **The revised budget allocation suggests that the change in FISFAP strategy has resulted in a more cost-effective means of implementation**. However, it will be beneficial to understand the funds allocated in relation to the impact achieved in the lives of the farmers, which is not currently possible given the stage of implementation of the current grantees.

Partners in Tanzania have a relatively high cost-sharing contribution from AGRA in comparison to Kenya and Ghana. **This may be due to the nature of the interventions, as well as the level of development of the sector in Tanzania, however, it may be useful for the FISFAP team to interrogate this further.**

4.3 IMPLEMENTATION SUCCESSES AND CHALLENGES

This section details the findings that have emerged around the successes and challenges, including external factors that AGRA and its partners achieved or faced during implementation.

4.3.1 AGRA internal processes

Delays in the recruitment of FISFAP staff caused significant implementation delays. AGRA lost about a year due to the length of time between the grant approval and when staff were in place to implement the project. The main challenge was the delay in the recruitment of a Team Leader, which took longer than anticipated. When AGRA was awarded the grant, it had a different management team led by Valentine Miheso, who was subsequently replaced by Hedwig Siewertsen as she had a more suitable background for the role (in financial inclusion) and was able to drive implementation. This also affected the recruitment of other team members (Associate Program Officers and Program Coordinator) since it was considered important to include the Team Leader in those recruitment processes. Now that staff is in place, the team is working to get back on track and expect to have a portfolio of 12 – 15 grants totaling USD 7 million by the end of year three.

Implementation delays have been compounded by the lengthy grant approval process. According to KIIs, it can take 3-4 months for grants to be approved due to internal AGRA processes. Staff describe this as a “black box” where the FISFAP team does not have sight of the process in which a grant memo moves between the AGRA grant committee to grant review committee. Delays in approval can affect the outputs and outcomes of the project if not in line with seasons for harvesting. For example, the VAELL Leasing grant memo went to the grant committee in March 2017, but was only approved in August 2017. The FISFAP team expected to issue the grant during the long rains (April-July) but had to reorganize the grant given the delays. **These delays and uncertainty can also affect FISFAP’s ability to manage its pipeline.** AGRA management has since developed ‘trackers’ and performance targets to be able to manage the timelines of its grant process, which were agreed to be too long. These were introduced in the first quarter of this year. Target turnaround times are set based on the value of the grant and its complexity (numbers of geographies and partners, and level of innovation).

The strength of the FISFAP team, including their expertise, networks and ability to select good partners, is a key driver of success of the project. The team members have been able to drive implementation after the initial delays and have been commended by the partners in each country for their continuous support during implementation.

The shift in FISFAP’s budget provides room for more project work and an opportunity to increase reach. The AGRA budget was initially tilted more heavily towards having sufficient staff in place to carry out training and capacity building activities. Since then, FISFAP updated its strategy

and shifted the budget to reduce the staff and spend more on partnerships and learning studies. As a result, new guidelines are in place which allocate 65% of funding to grants, 25% to grant management, and 10% to overheads. Furthermore, FISFAP retained MicroSave as a consultant under its Special Products and Client Engagement Officer budget line item. This was because they weren't able to recruit one person to focus on human centred design, which is a specialised focus area and not necessary for a single staff member to carry out full-time. This decision provided the opportunity to call upon different expertise within MicroSave as necessary. Since then, MicroSave has been able to assist ACRE Africa and FROG in adopting a human centred design approach.

The interconnected nature of some AGRA and FISFAP roles, which is important for creating additionality from FISFAP for AGRA, affects reporting to Mastercard Foundation. Mastercard Foundation has provided AGRA with funding to recruit two more staff members (one for East Africa, and one for West Africa) who will not be working directly on FISFAP but will rather work on broadening financial inclusion within AGRA in those regions. This will include working on areas such SME finance (e.g. off-takers, fertiliser planners, input dealers) beyond smallholders. Since this is part of funding from Mastercard Foundation, but not related directly to FISFAP, it is not clear how the outputs from the staff will be reported. This same reporting issue concerns FISFAP officials conducting AGRA work. For example, Peter Shao, who is doing work on AGRA projects (e.g. Yieldwise) has his salary paid by FISFAP because 85% of his time has been spent on FISFAP. Similarly, it is not clear how to report staff travelling: for example, if Hedwig travels to another country to discuss financial inclusion issues with other AGRA partners, there is uncertainty about which budget this should be allocated to.

4.3.2 Partner-level

The FISFAP partnerships are at different stages of implementation. A number of them, including ASI, SELF, PIL, and VAELL, have not started serving smallholder farmers. Others such as FASL and ETC are just under or over six months old. Therefore, findings on successes and challenges are limited to a few key themes.

Alternative distribution channels are an effective way to reach smallholder farmers, but sparsely located communities make channel management difficult. The solutions in the FISFAP portfolio have reduced a major barrier faced by farmers, which is the long distances they have to travel to a financial service touch point, or the level of red tape involved in opening formal accounts. The success of channels such as the e-Granary and agency banking solutions can be attributed to the use of technology that is easy to use, combined with field agents that work with smallholder farmers in their communities to help build the trust of the product and also educate farmers on how best to make use of the platform. As partners such as FASL grow their channels and agents, the sparsely located communities make it difficult to manage the agents and liquidity since support teams have to travel long distances. Going forward, partners will need to explore alternative agent management methods such as Master Agents at the community level.

Delays in grant approval has negatively affected product reach and usage. Given the nature of the products and services offered by FISFAP's partners, there is need to introduce the products well ahead of the farming season in order to meet the needs of the farmers and adequately prepare farmers to use the products. For example, the Esoko Tulaa platform is an input layaway scheme that requires farmers to save money that will be used to purchase farming inputs before the farming season begins. However, as highlighted in the previous section, a delay in the AGRA grant approval process caused the products to be launched late in the farming cycle and farmers were not able to raise enough finances to purchase inputs. This led to low product usage with only 10% of the registered 1000+ farmers using the layaway mechanism. FGDs with Esoko beneficiaries confirmed this as farmers reported that Esoko introduced the platform just before the farming season and farmers did not have enough time or resources to contribute towards the layaway scheme.

Farmers want some input finance incorporated into layaway/saving mechanisms, but offering affordable credit to farmers is a challenge. Smallholder farmers often struggle to save on a regular basis, and often require some form of credit to be able to purchase inputs. Because of this demand for credit, their usage of savings/layaway solutions can be negatively impacted. For example, during the design of Tulaa, input top-up credit was meant to be incorporated as an element within the platform. This is yet to be done due to not having partners to work with and because of that, a number of farmers mentioned during FGDs that they were disinterested. FASL mentioned that offering credit at an affordable rate is difficult given the risk involved in smallholder farming and the high interest rate environment in Ghana. According to Esoko, they aim to incorporate the credit element in the next major season. This emphasises the need for potential FISFAP partners to explore instituting agreements with their sub-partners prior to project inception so that the projects are rolled out as outlined in the proposals.

Partners needed to dedicate sufficient resources to consumer sensitisation/training and follow-up. Interviews with the different FISFAP partners highlighted that a key determinant in reaching clients was the extent to which clients understand, trust, and see the value in using the solution. The adoption of partners' products among farmers was negatively impacted by a lack of trust in financial institutions. In Ghana for example, this was due to widespread fraud by MFIs in the Brong-Ahafo and Northern regions which led to farmers losing their money. Also, given the low literacy levels in rural areas, farmers also struggled to understand the solutions. To mitigate these issues, partners had to invest more resources into sensitisation/training and product demonstration. Not doing this properly had negative effects on reach for some partners. This is best demonstrated through Esoko's Fasiba product. Not only was it late, but FGDs revealed that farmers did not really understand the solution, and in some instances, registered for the product without even knowing what inputs they would receive. These findings were supported by RMG Concepts (Esoko's partner) which noted that the lack of trust in mobile financial services was not sufficiently accounted for during farmer sensitisation. Another example is PIL, which found that many smallholder farmers in the catchment areas did not visit agro-dealers as they believed that they cannot afford inputs or that the inputs provided to them were fake – something which could be mitigated by more farmer sensitisation and marketing. Similarly, the use of the TingA platform has not been successful as smallholder farmers are weary of using digital platforms to hire equipment and prefer physically visiting a mechanisation hub to verify the quality of the equipment that they will be using. VAELL is now working to ensure that TingA is more relevant to farmers and have suggested the use of WhatsApp messaging in place of the current android app and USSD short code.

The value of investing adequately in farmer education and follow-up is evidenced in the ACRE Africa project. Following inception in 2013, ACRE Africa conducted a GSMA review of the Replanting Guarantee Product in 2014 to measure the piloting success of the product. The study revealed that there was poor uptake of product activation by farmers, which was mainly due to farmers not being comfortable with frequency of messages sent once activated. ACRE Africa implemented suggestions made from the study in August-November 2015, including adopting the use of a USSD system from an SMS based registration system and provision of airtime for mobile phone-based product promotion which resulted in an increase in the uptake of the product by 5%.

In addition to the lengthy grant approval process, implementation by the partners was delayed by the time taken to secure their third-party relationships. For example, ASI is still trying to broker MNO fees and negotiate with the MNOs to reduce the cost for farmers using the mobile payment solution. However, ASI has limited control of competition between MNOs and the outcome of these negotiation will determine how attractive the solution is. Additionally, the Ghana Central Bank announced the collapse of Capital Bank, an ASI partner, after failure to turnaround its negative capital adequacy position.[18] This poses a risk to the implementation of SFIN if ASI is unable to engage another partner or Dalex does not have the capabilities to serve all the customers within the project.

KCB noted a challenge with the quality of the farmer data they obtained from the partner FBOs for farmer registration. This data was reportedly of very poor quality and required a great deal of cleaning, which consequently delayed implementation as KCB only had a few resources dedicated to the pilot at the time and a great deal of their time had to be spent cleaning data. Umati faced a similar challenge with identifying farmers through the supply chain finance aggregators.

Communication between Esoko and RMG Concepts also seems to have been broken/halted. This is based on discussions with RMG Concepts officials who say they haven't heard much from Esoko

[18] Ghana Central Bank, 2017, GCB Bank takes over UT bank and Capital Bank

since the order purchase by the first 103 farmers. This could have negative implications for future partnership between the two organisations unless engagement is reinvigorated.

4.3.3 External factors

There are a number of external factors, outside the control of AGRA and its partners, which had an impact on implementation.

Mobile network availability was a recurring issue across the FISFAP projects. Given the limited mobile network infrastructure in most rural areas, transactions on partners' platforms (both mobile and agent channels) were often unsuccessful. For example, KCB, PIL, ASI, Umati Capital and SELF require stable mobile connectivity to ensure their platforms or product offering is successfully implemented. According to interviews with FASL agents and ASI, poor network connectivity and lack of dominant MNOs in certain areas drove customers away and made the solutions less attractive. Network access is still a challenge in rural Ghana and MNOs are still struggling with the cost of investing in infrastructure.

The retail sector in Kenya has been turbulent over the last couple of years and big retail supermarkets have not been paying their suppliers on time. This has had a ripple effect on Umati's operations as intermediary buyers are also unable to pay the smallholder farmers on time. This uncertainty, and the fact that farmers do not always understand the broader context affected their trust Umati, which resulted in slow uptake of the product.

The recent drought in Kenya affected data collection for EAFF. Because of the drought, EAFF was unable to complete its data aggregation exercise during the last farming season as farmers were unable to complete the data collection loop. This in turn made it difficult to provide credit scores for the farmers.

Donor crowding is impacting farmer behaviour and financial sustainability. Donor interest in the agriculture sectors of the FISFAP countries has led to duplication of efforts with large sums of money often targeting the same value chains and communities, especially in Northern Ghana. In many instances, this donor funding is offered for free with no repayment required or no penalties imposed for defaults. This has negative implications for private sector for-profit institutions since there will be low incentive among clients to repay the loans. To mitigate this risk, AGRA ensures that clients are not made aware that the solution is funded by them. This is also means that additional investment is required in facetime with farmers to differentiate FISFAP solutions from others, especially in Northern Ghana.

Political instability in Kenya has had an impact on economic performance. Kenya has just past an electioneering period with the general elections held in August 2017. This has generally led to an economic slowdown as the private sector scaled down their investments and operations until after the elections. The capping of the lending interest rates, which is believed to be a political move[19], has also led to a slowdown in the credit flowing to the retail sector. Regulated financial service providers are now lending primarily to the government and to low risk profiled credit users.

Ghana's high interest rate environment makes credit unattractive. With a Central Bank Rate set at 21%, average interest rates in Ghana average above 30% (even for low risk clients). Therefore, lending to higher risk segments is unattractive to most financial institutions or is too expensive.

[19] Henry Kiema, 2016, Mid this year: the Kenya, CGAP

Stringent loan application requirements affect credit extension in Tanzania. According to Bank of Tanzania requirements, business loan applicants (including farmers) need to meet strict requirements including providing collateral value of 125%, preparing business plans, and providing down payments of up to 40% of the asset cost. Most smallholder farmers, given their low income and informal nature, will not be able to meet these requirements.

4.4 UNDERSTANDING AND MEETING CLIENTS' NEEDS

Smallholder farmers across the FISFAP countries face a broad range of financial and non-financial needs, which include: access to quality inputs; access to financial products and services, such as credit, and transaction and savings accounts; access to post-harvest technologies; access to income to meet household needs, all of which are critical to improving their livelihoods. A good measure of whether products are designed to meet clients' needs would have been the adoption and uptake of the products by the clients. However, this was not possible given the implementation stage of the current portfolio of grantees. As such, this section details findings on how FISFAP grantees have approached understanding these broad smallholder farmer needs and how this has informed the design of their respective solutions. **Overall, the general finding was that all grantees went about understanding client needs differently, but those that used client-centric approaches were more successful in developing their solutions.** Further, findings from the evaluation indicated that some grantees lacked internal capacity to conduct client centric research and required external support to do this properly**.**

The extent to which service providers understand the needs of smallholder farmers and the approach they undertake to gain this understanding is essential to formulating client-centric solutions. Conducting formal needs assessments, which include soliciting inputs directly from the target clients is vital in ensuring that solution design and offering is client-centric and in accordance with the needs, capacity and circumstances of the target beneficiaries. **Grantees have adopted different approaches to conducting client-centric research, with focus group discussions with clients and baseline market surveys being the more common approaches**. ASI Capital Bank in Ghana (ASI) conducted client needs assessments through baseline surveys and market research identifying what constraints farmers face and what they use their incomes for. The research outputs were then provided to their partner, Tigo, who designed their product in line with the needs of the farmers. Acre Africa partnered with MicroSave who completed client-centric research on their behalf. The approach involves focus group discussions with farmers across different regions mainly in Eastern and Central Kenya. FASL in Ghana conducted a sensitization campaign through consultants to map strategic locations for its agency banking solution and assess needs of its target clients.

It is evident from the cases presented that some of the grantees have limited internal capacity to conduct client-centric research and require external support in doing so. FASL in Ghana worked with rural communities who provided support in communicating the "needs on the ground" and translations into local languages. KCB, with FISFAP support, engaged Frog who assisted with the interaction with farmers during the client-centric research. Acre Africa, with FISFAP support, engaged MicroSave as a research partner to conduct market-led client-centric research. PIL received support from Dalberg Impact Design after they were linked to CGAP through FISFAP, to conduct client-facing research.

Other grantees did not conduct needs assessments with clients and opted to base the design of their products on their previous experiences and interactions with clients. For example, Umati Capital did not conduct a formal needs assessment, but used experiences from lending to dairy processors to inform their approach to providing finance to similar actors in other value chains. KCB

initially did a “boardroom design” of their product, but this was not well received by the farmers. This then triggered FISFAP to recommend them to adopt the HCD approach to the redesign of their product as mentioned above. TIGO and ASI in Ghana reported that their experience working with smallholder farmers (through a similar project called Rimfin) has shown that farmers have a need for a safe platform through which to receive payments for their harvest proceeds as receiving cash payments is exposing them to risks of robbery. These past experiences helped inform the design of their solution.

While conducting formal client needs assessments and involving clients in the design process is key to designing client-centric solutions, segmentation of clients based on their socio-economic profiles and characteristics is equally important in ensuring the solutions are tailored to the specific segment it intends to reach. Segmentation of farmers based on gender is equally important in designing client centric solutions as it allows solutions to be developed in line with some of the gender needs and challenges. Smallholder farmers in all FISFAP countries were found to have similar socio-economic characteristics including dependence on agriculture as the main and in some cases sole source of income; relatively small land sizes; produce mainly food crops in unstructured and loose value chains; and lack of access to production resources including mechanisation, finance and improved inputs. In recognition of the fact that most smallholder farmers are dependent on agriculture for incomes and have few alternative options through which they can access income to meet their household needs, SELF in Tanzania, together with its implementing partners and support from MicroSave, is developing a product that allows farmers to access a household income smoothing loan in addition to an agricultural production loan.

Land ownership, land holding, geographical location, previous business relationship with the service provider and access to collateral are some of the criteria that are being used by grantees to segment their clients. The International Finance Corporation’s smallholder farmer segmentation framework[20] categorises farmers based on the following characteristics: land size, labour type, technology adoption and utilisation, access to resources, production systems (commercial or subsistence), marketing capacity, value chain structure and strength. Land size and ownership is a key segmenting factor among financial service providers as it is often the primary collateral option. Land size is also a key segmenting factor between Lead Farmers and smallholder farmers in the EATIL mechanisation solution project. Farmers with larger land sizes (at least 20 acres) are eligible to be selected as Lead Farmers whereas those on smaller land sizes fall into the smallholder farmer segment. PIL in Tanzania has segmented its clients’ base on their geographical locations, defining two client segments - rural farmers and urban farmers.

Women continue to face difficulties accessing financial services compared to their male counterparts. Cultural dynamics that preclude women from inheriting land, which is a key collateral requirement, and making financial decisions within the household have created challenges for women in accessing financial services. Designing solutions in recognition of these dynamics allows for a client-centric approach. At the program level FISFAP does not have a strict requirement on gender segmentation as their approach to working with the private sector partners makes financial sustainability are more important factor. However, findings from the evaluation indicate that some of the FISFAP grantees, such as Esoko in Ghana and EAFF in Kenya, are beginning to explore ways of ensuring their products address these gender challenges. For example, Meru Community Bank, who has partnered with SELF Microfinance, has designed a product that does not require collateral and allows borrowers to start accessing small loans from the bank. This has allowed women to access financial services without the need to provide collateral.

[20] IFC (2011): Scaling Up Access to Finance for Agricultural SMEs Policy Review and Recommendations

4.5 IMPACT AND ADDITIONALITY

4.5.1 Emerging farmer outcomes

Given that implementation has only recently started for the majority of FISFAP partners, with some partners still in the grant approval stage, **it is not yet possible to comment on the longer-term outcomes or impact of the project with respect to farmer income and productivity.** While the evaluation team did speak to certain partners' beneficiaries, it was evident that, despite intention to use the products, uptake at this early stage was very low. The farmers were therefore unable to comment on the effect of the product on their productivity or income. The evaluation thus used the FGDs to better understand the farmers' needs as opposed to their experiences of the products.

The impact of the project will become evident as more data is collected over the remainder of the grant period, as well as through the impact studies commissioned through FISFAP.

4.5.2 Influence on broader ecosystem

According to external organisations, AGRA is considered to be a market facilitator with convening power, and therefore potential to influence the broader ecosystem through the work that they do. While their influence on the broader ecosystem is not overtly monitored, there is emerging evidence of FISFAP influence on the ecosystem.

Through FISFAP, FASL in Ghana has been supported to develop their agency banking approach. This is something that Fidelity Bank has attempted to do in the past; however, they were reportedly unsuccessful in this attempt. Through our interviews with FASL, it emerged that Fidelity Bank is now re-entering the agency banking market, and copying the approach of FASL. Should this model be successful and other banks copy the FASL approach to establishing agency banking networks, FISFAP could directly influence the way that banking is being conducted in Ghana. Furthermore, should other FISFAP partners also be achieving a first mover advantage through the AGRA support, which many claim to be achieving, there is the potential that further copying might occur among other value chain actors in future.

Another example from Ghana is the work being done by ASI, in partnership with Tigo and Vodafone, to expand access to mobile financial services. According to the partners, adoption of mobile money has been slow in Ghana, which has been a constraint in the financial services ecosystem. This project seeks to address this by increasing the number of mobile money agents in rural areas and educating smallholder farmers on the use of mobile money. If this is successful, and more network operators crowd into the market, this could also have substantial effects on the Ghanaian financial ecosystem.

Another way that AGRA is influencing the broader ecosystem is through the learning pieces that they are producing and sharing through FISFAP. Of particular relevance is the ICT4Ag "Digital Harvest" piece. This study sought to understand what factors contribute to the sustainability of ICT4Ag business models. The study was presented at the African Green Revolution Forum (AGRF) and received widespread attention. While the evidence of how these studies are contributing to the broader ecosystem is not currently being measured, there is the possibility that the findings could inform the development of future initiatives or businesses, and ultimately contribute to more sustainable solutions.

Lastly, through conversations with AGRA staff, it was reported that the FISFAP team leader, Hedwig Siewertsen, and the PROFIT leader, Ronald Ajengo, have both been invited to be a part of the

Financial Sector Policy Working Group in the Kenyan National Treasury. Having this platform to showcase the work that AGRA is doing in financial inclusion, and learn from what others are doing, will also create the potential for FISFAP, and AGRA more broadly, to influence the ecosystem. Furthermore, through our discussions with external parties in Tanzania and Ghana, there also appears to be scope for the FISFAP team to participate in donor working groups on financial inclusion or agricultural finance in these countries.

4.5.3 Additionality of FISFAP grants

The grant-making under FISFAP has been targeted at supporting the design, pilot and scale up of innovative financial products for smallholder farmers. The majority of FISFAP partners had already tried, or planned, to develop these products prior to receiving the finance from AGRA; however, many of them were unable to mobilise resources to develop a proof of concept to justify the new business development. **It was therefore widely reported by the partners that they would not have been able to undertake these innovation pilots without the assistance of AGRA**.

The finances provided by AGRA are of course core to the additionality argument, in that many of the partners have reported that they did not have the human and financial capital available to conduct the research/pilot activities, which AGRA has directly supported. This is true of KCB, EATIL, PIL, and ASI.

However, it is apparent from the discussions with FISFAP partners that the real additionality of the AGRA grants emerges from the additional support offered by the FISFAP team. While finance could arguably have been accessed elsewhere through other donors or financial institutions, the expertise and networks that the FISFAP team have offered to partners has been invaluable to the development of the innovations. A few of these value added support services are detailed in Box 2. According to the FISFAP team leader, Hedwig Siewertsen, she would like see the FISFAP team doing more of this in the remaining years of the project.

Box 2: Value added support for FISFAP partners

FISFAP partners have been offered the following non-financial value added support:

- The FISFAP team has linked Umati Capital with FMO and Oikocredit, to provide them with credit. Umati has also been linked to farmer based organisations connected with other AGRA interventions.
- Paul Njeru from VAELL Leasing accompanied the FISFAP team leader to Washington DC to attend a conference and meet with potential funders including the Overseas Private Investment Corporation (OPIC) and the International Finance Corporation (IFC).
- The FISFAP team organised a launch event for PIL in Arusha to mobilise stakeholders and workshop ideas about using the Digital Inputs Financing Toolkit (DIFT) platform.
- Reuben Gicheha, who has branchless banking expertise, supported FASL and ASI in their alternative delivery channel work.

4.5.4 Additionality for AGRA

FISFAP has also created a great deal of additionality for AGRA itself, in that through FISFAP, AGRA has been able to expand its internal financial inclusion capacity from one person at the beginning of the project to seven people across three countries. Furthermore, through the grants that they have been able to make, they have identified a number of innovative solutions that have the

potential to be adapted to different contexts and incorporated as a subcomponent into other AGRA initiatives going forward. According to AGRA staff, this capacity was non-existent prior to FISFAP and has added great value to AGRA's potential service offering.

Given the lack of financial inclusion capacity within AGRA at the time, accepting a USD 15.5 million grant focused solely on financial inclusion appears to have been quite opportunistic – this opportunism was substantiated by AGRA staff who were present at the time FISFAP was being designed. However, a former MasterCard Foundation program officer of FISFAP suggested that the Foundation was more deliberate in their selection of AGRA to implement the program. From Mastercard Foundation's perspective, AGRA was seen as a major player in the agriculture sector in Africa, with substantial expertise in seed markets, input distribution, research on hybrid seeds, and agri-businesses, but there was little they were offering on the finance side to support these initiatives. It was reported that as a private foundation that is willing and able to take risk, Mastercard Foundation supported FISFAP in part to prove to AGRA how important it is for smallholder farmers to have access to finance and/or alternative financial products in addition to the other support offered by the organisation.

AGRA receives core funding from the Bill and Melinda Gates Foundation, the Rockefeller Foundation and USAID. While all of these donors have an interest in agri-finance, the FISFAP team is uncertain as to whether they would have ever committed the funds to expand AGRA's financial inclusion capacity to the extent that it has grown without the support of Mastercard Foundation through FISFAP. In fact, Peter Shao, the FISFAP Program Officer in Tanzania, whose salary is paid out of the FISFAP budget, is also working on other projects outside of FISFAP to expand AGRA's agri-finance footprint in Tanzania beyond the FISFAP grant period. Having had this support has therefore added great value to AGRA, to the point where access to finance has now been included as a key component of agricultural transformation in AGRA's 2017 – 2021 strategy, and will form part of the new integrated approach that AGRA seeks to take going forward. **According to AGRA, the financial inclusion team is now bigger than just FISFAP, and this is largely thanks to Mastercard Foundation support.**

4.6 FINANCIAL SUSTAINABILITY

At proposal stage, each partner is required by FISFAP, as part of its selection criteria, to make projections on how financially sustainable their proposed solution will be. Since they are profit-driven institutions, they have a vested interest in being profitable and so they dedicated adequate effort into these projections. **Given that many of the projects are still in infancy stage, it is difficult at this point to determine whether they have in fact been financially sustainable.**

During interviews with the partners, they were convinced that their solutions will be profitable, even though they've faced a few challenges. This, however, is heavily dependent on reaching the targeted farmer volumes. **With a few of the partners reporting outreach numbers below expectations, there is some evidence to suggest that financial sustainability may be a challenge in the short term and may only be realised after FISFAP ends.**

The EAFF e-granary platform cash flow projections show that the business will breakeven with approximately 100 000 active farmers. Given the level of reach attained thus far (25 500), EAFF expects that it will possibly achieve this number but there are possible downsides. The key risk factors include the number of contracts converted into real sales, farmer participation on the platform, ease of access and repayment of loans, revenue streams generated, and the smooth operationalisation of the platform. EAFF expects to be profitable and financially stable once initial costs are progressively

reduced and a critical mass number of farmers are mobilised onto the platform. This, however, needs time and may only be realised after the FISFAP program ends.

VAELL is unsure of whether there is a business case for TingA in Kenya. They initially projected that the project would breakeven in 2 years but the majority of the interest that has been received is from outside Kenya. As a result, VAELL will need to revise its initial projected profitability. There are certain aspects of the project that are profitable (pre-harvest cycles) while others are loss making (post-harvest equipment) thus there is need to conduct more analysis to optimise its value proposition. VAELL plans to engage AGRA to assist with the thinking around financial sustainability for TingA.

Although ASI is yet to roll out its services, the team bases their financial sustainability expectations on previously implemented projects in the rice and palm oil value chains. One of the projects was implemented about two years ago and initially benefitted 700 farmers. Since then this number increased to 2000 and farmers continue to receive payments through the platform. Based on this, ASI is convinced that this project will prove the business case. By working with two large MNOs that are expanding coverage to increase their rural reach, there is reason to believe that the project will be successful. This will, however, depend on how well ASI trains and sensitises the farmers and the agribusiness in order to drive usage.

In terms of proving a business case, Esoko's Tulaa has been limited given its recent nature and poor pilot phase results. According to Esoko, they are working to mainstream the learnings from the pilot to make sure that the next season reports positive results. At this point, Esoko is convinced that the project will be financially sustainable. In addition to providing layaway services, they are looking to expand their services to include credit and a wider variety of input providers thus diversifying the revenue stream. The key risk for financial sustainability for Tulaa is getting economically viable smallholder farmers that can transact on the platform. This was a major learning from the pilot given a 10% participation rate. Therefore, Esoko needs to not only focus on registrations but registrations that will lead to usage. According to Esoko this was partly because of the incentive structure for their staff, which would go into these communities with the sole purpose of increasing registration onto the platform. However, this time round Esoko plans to conduct quick assessments before registering people to determine commitment. How this will work however is not clear.

With these changes in mind, Esoko targets 25 000 – 30 000 smallholder farmers being registered by March 2018. According to their estimates, if about 25% of those farmers used the layaway product, it will show vendors that Esoko can aggregate enough demand to make the product profitable. In the proposal, the financial model projects a total of 80 000 unique subscribers as necessary to be financially sustainable with 50% of those farmers using the layaway services. **There is a clear disconnect between the team's now pragmatic expectations versus the ambitious targets at project inception. This will need to be analyzed further by Esoko and AGRA.**

The ETC EATIL model provides some early positive signs of financial sustainability based on the number of farmers reached thus far. According to interviews with the team, the business case for the product is two-fold. Firstly, Lead farmers will increase household incomes through hiring tractors for various on-farm and off-farm activities, while at the same time accessing timely mechanisation services to expand production areas. Secondly, smallholder farmers will have access to timely mechanisation services which means they are able to prepare their land in time for the production season. Smallholder farmers will also be able to expand their production area, which will ultimately increase their production and incomes. EATIL expects to break even in the first 48 months of the project. By then they expect to have sold more than 50 tractors and 250 implements, giving them sufficient revenue to recover the contribution this project and manage the recurring costs. It is still too early to tell whether they are on track to meet that target.

Similarly, it is still too early to determine whether FASL's agency banking product is financially sustainable. However, some early signals can be identified. FASL has gone through an iterative process to set the incentive structure for agents.[21] According to the management team, this will prove to be financially sustainable. FASL conducted an analysis to see the impact of the agency banking product on the entire bank's operational income. At the time, it was measured at about 5% and this is expected to have increased. The savings mobilized under agency banking also allows FASL to provide lending which is a form of additional revenue. FASL expects to break even in a short period of time but this is dependent on retention of customers and deposits, which is currently at around 37%. For the product to be sustainable in the long run this retention rate will have to increase.

KCB's first pilot only reached about 40% of the targeted farmers. Although the pilot was not successful in reaching their target numbers, the KCB staff highlighted that there is still a strong commitment from the senior management of the bank to capture this segment of the market and expand into the agriculture sector. They have therefore been willing to commit resources to the subsequent scale up operation, for which they have received a five-year grant from Mastercard Foundation to reach 2 million farmers. A Mobigrow business unit was established at the end of 2016 to ensure that they are getting the numbers required to become profitable. Mobigrow has not yet broken even, but is expected to do so within two and a half years (half way through the FISFAP grant). KCB staff also noted that there has been a marginal improvement in the bank's bottom line as they have managed to reduce the cost of operations through the development of the Mobigrow platform. KCB considers themselves a first mover in terms of commercial banks operating in the agriculture sector, and is hoping to capture a substantial portion of the market through the Mobigrow platform. They have reported that farmers are expressing appreciation that one of the big banks in Kenya is going out of their way to meet their needs, and this appreciation is likely to generate some degree of loyalty from this target group, which they expect to translate into more business in the future.

Umati has not been performing as well as anticipated up to this point. The team, however, still projects that they will break even in the next nine months. Thus far, there is no compelling evidence to suggest that this will be done, although they are working to turn their performance around. According to interviews, Umati has secured funding from Oikocredit and FMO to on-lend for supply chain finance. With funding secured, the focus will now be on increasing their buyer client base so as to reach more smallholder farmers, and generate more revenue. They are close to confirming a financing program for Uchumi Supermarkets (one of the big retailers in Kenya) starting with their fresh produce suppliers. The process is at the contracting stage. By initially targeting Uchumi's fresh produce suppliers, Umati is intending to assess interest in their Invoice discounting solution and then eventually promote Supply Chain Financing. Umati plans to coordinate closely with AGRA to assess the opportunity for additional funds that would accelerate the scaling initiative for SCF.

At proposal stage, PIL expected to break even within two years (by 2019). It was reported that in order for the DIFT to be a sustainable business model, they would need to serve approximately 14 000 farmers per year. PIL noted that while this target might not be achieved within the grant period, they are confident that they will reach this number beyond the AGRA support and continue to reach this number in future as they scale the operation.

[21] Initially agents received 0.8% on the value of deposits. This incentivised them to focus on high deposit values from a low number of farmers. Subsequently FASL introduced compensation on a value of transaction 60 pesewas for every account that transacts within the month. For each withdrawal, customers are charged 1%, 0.6%, and 0.5% depending on the value. About 40-60% of the fee is split between agents and FASL. For every new account, agents receive GHS1 (but must be KYC compliant and show some activity before the commission is paid so that agents does not just register people to gain commission).

In conclusion since there is dependency on reaching scale for all the partners, and this may not happen within the current FISFAP timelines, **continuing to measure one year beyond the current end of the project may help to assess the achievement of financial sustainability.**

4.7 STRATEGY

4.7.1 Alignment with AGRA strategy

According to AGRA employees, AGRA did not have a strict agricultural finance strategy at the time FISFAP was being designed, which is also reflected by the fact that AGRA had very little financial inclusion capacity at this time. AGRA was implementing the Program for Rural Outreach of Financial Innovations and Technologies (PROFIT), which was initially designed to have an innovative finance component to it, but this eventually fell away as the program was delayed for some time, leaving FISFAP to fill this void. As it stands, PROFIT addresses issues of integration among value chain actors, banks and technical service providers, de-risking the sector and creating an enabling environment, while FISFAP acts as a kind of accelerator for businesses operating within this environment.

However, despite the lack of a clear strategy within AGRA at the outset, there has been an effort to align FISFAP with other AGRA interventions. According to the FISFAP team, as well as multiple FISFAP partners, part of the proposal development process is geared towards finding synergies between the FISFAP initiatives and other AGRA interventions. These synergies could come in the form of AGRA partners working together, the geographical area in which the initiative is operating, or targeting beneficiaries of previous AGRA initiatives. This is something that the AGRA grants committee explicitly evaluates and considers as part of the grant approval process, to ensure that FISFAP contributes to the strategy, mission and targets of AGRA. This is particularly important as they start taking a more integrated approach to their interventions. Some examples of synergies between FISFAP partners and other AGRA partners are provided in Box 3 below.

Box 3: Synergies between FISFAP and other AGRA partners

The following are examples of actual or planned synergies between FISFAP partners and other AGRA initiatives:

- PIL is using AGRA-sponsored seed companies in the DIFT.
- VAELL is partnering with an AGRA program known as The Potato Consortium to provide mechanisation services to the farmers. VAELL also has plans to leverage partners of AGRA's Soil Health program
- EAFF and PROFIT are collaborating to deliver farmer training.
- The Esoko farmer registration system is being used for a Ghanaian government program for which AGRA provides country support.
- A number of partners (for example Esoko, FASL, PIL, SELF Microfinance, ASI) have committed in their proposals to work with other AGRA projects including the "Scaling Seeds and Technology Partnership" (SSTP), promoting AGRA supported seed companies in project areas; Yieldwise; and the Agro-Dealer Development Program (ADDP) by using the agro-dealer network developed by AGRA.

There are also emerging synergies between existing FISFAP partners:

- VAELL provides mechanisation services to EAFF (e-Granary) farmers;
- ACRE Africa provides insurance services to EAFF (e-Granary) farmers.

- Esoko and FASL are in discussions to work together, whereby FASL will set up agency banks in Esoko areas and provide credit top-ups for farmers that have saved up to a certain percentage of their crop plan.

As the FISFAP strategy has been refined and the agricultural finance capacity within AGRA has grown, so has the alignment between FISFAP and the broader AGRA strategy, which itself has been revised and refined for the next five years.

The AGRA 2017 – 2021 strategy has a strong focus on providing an "integrated package of proven solutions" to smallholder farmers and value chain actors. This is an attempt to address the historically siloed nature of AGRA operations, and provide more holistic solutions to catalyse "agricultural transformation".[22]

The FISFAP team leader sees their work as aligning well with this new approach. It was reported by multiple stakeholders that the finance side of agricultural interventions was historically neglected by AGRA. However, through FISFAP, they have been able to compile a "toolkit" of possible solutions that they can now draw from in the development of more integrated interventions that focus on providing end-to-end solutions for the farmer. Furthermore, according to AGRA employees, AGRA has historically had more of a public sector focus, but the revised AGRA 2017 – 2021 strategy states that one of their three key strategies is "*unlocking the value of private and public sector investments to sustain an agricultural transformation*". **Given that FISFAP supports the development of private sector solutions to agricultural finance problems, it is clearly aligned to this new focus**.

4.7.2 Alignment with MCF strategy

The Mastercard Foundation strategy has three core pillars – (1) financial inclusion, (2) education and learning, and (3) youth livelihoods – and agriculture is a sector focus that cuts across all three pillars. According to a representative from the Foundation, this sector focus was somewhat unintentional at first, but emerged organically within all three pillars as an area of need. It is therefore still somewhat undefined, but it was reported that it will remain a core focus area, and will likely be more formally defined, in the revised Mastercard Foundation strategy due to be launched in 2018.

FISFAP, and the AGRA partnership, was being formulated around the same time as agriculture was emerging as a focus area within the financial inclusion pillar, and therefore aligned well with the thinking within the Foundation at the time. As discussed in Section 4.5.4 above, AGRA was perceived by the Foundation as a major player in the agriculture sector with a large network of key stakeholders throughout the agricultural value chain, as well as within governments and research/academic institutions. Furthermore, it was also reported that Mastercard Foundation was looking for more African partners around this time, which is relevant given that AGRA is an African-led organisation, headquartered in Kenya, and considered as having convening power in Africa.

Taking on AGRA as a partner was therefore a very intentional and strategic move on the part of the Foundation, and given that they are a private foundation, using grants as their financial instrument, they were able to take on risk and support the development of the financial inclusion capacity within AGRA. According to the Foundation stakeholders consulted, this partnership is indeed considered a valuable one within the Foundation, and the innovations being developed by the FISFAP

[22] "AGRA defines agricultural transformation as a process by which individual farms shift from highly diversified, subsistence oriented production towards more specialized production oriented towards the market and other systems of exchange, involving greater reliance on input and output delivery systems and increased integration of agriculture with other sectors of domestic and international economies." (AGRA's Strategy Theory of Change and Results Framework, June 2017)

partners have reportedly informed the conversations that they are now having within the Foundation, particularly with respect to mechanisation in agriculture.

While the details of the new Foundation strategy are still a work in progress, it is known that the overall focus will be on promoting youth employment in Sub-Saharan Africa. In terms of financial inclusion, it was reported that this direction may translate into a focus on SMEs that provide an opportunity for youth job creation, and as mentioned above, agriculture is also likely to remain a core sector focus. This is well-aligned to the revised AGRA strategy which has as one of its primary outcomes "Increased agricultural employment and entrepreneurship", as well as a cross-cutting primary outcome of "Increased youth empowerment and livelihoods in agriculture". **The strategies of AGRA and Mastercard Foundation are therefore aligned going forward, which could result in further collaboration in future.**

4.7.3 Alignment with other actors

The final strategy consideration is the extent to which FISFAP aligns with other market actors and donors. As mentioned in Section 4.5.4 above, AGRA receives core funding from the Bill and Melinda Gates Foundation, the Rockefeller Foundation and USAID. This support is used to fund the core operations of AGRA and is not directly linked to any particular initiative within AGRA. However, FISFAP is also aligned to their strategies in that they all support financial services in some way that relates to FISFAP – in addition to their Agricultural Development initiative, which AGRA falls into, the Bill and Melinda Gates Foundation has an initiative called Financial Services for the Poor, and the Rockefeller Foundation has a separate initiative called Innovative Finance.

Given the more integrated approach that AGRA seeks to take over the next five years, the financial inclusion team plans to start integrating financial inclusion activities into AGRA's broader interventions. With this shift to integrated programming, the successes achieved by FISFAP will be central to demonstrating to the core donors the value of this approach.

Another point related to alignment with other donors is the issue of 'donor crowding'. From the discussions held with external organisations, as well as some of the FISFAP partners, it was reported that support for smallholder farmers is very popular amongst donors. Given that there is very little coordination between different donors, this can result in farmers experiencing 'donor fatigue', such that they are unable to distinguish between different interventions and might not be loyal to any particular one, which has implications for the sustainability of the projects. This issue is particularly prominent in the north of Ghana where a couple of the FISFAP partners are operating.

This is not to say that FISFAP partners should not be operating in areas where other donors are operating, but rather that the **partners should be cognisant of this fact and that a certain degree of facetime is required with farmers to sensitise and train them on the product or service they are offering, so that it 'stands out from the (donor) crowd'.**

In terms of other market actors, FISFAP, and AGRA more broadly, is well-aligned to market facilitators such as FSDK and FSDT. The representative from FSDK reported that AGRA is also viewed as a type of market facilitator and noted that the work that FSDK does is well-aligned to the work being done through PROFIT and FISFAP as they are targeting the same market constraints. Where FSDK operates at a higher systemic level, they see AGRA as filling the gap closer to the ground.

FSDT also implements more systemic interventions focusing on topics such as contract farming and warehouse receipts, as well as contributing to agricultural and financial policy. However, while there are synergies with what AGRA is doing, the FSDT representative was not aware of FISFAP. FSDT has also initiated a number of working groups to try to coordinate efforts in the agri-finance sector,

which is aligned with FISFAP's learning agenda, and therefore an opportunity where the FISFAP team can collaborate and share knowledge.

From the above it appears that there is indeed alignment between FISFAP and the work of other actors in the agri-finance space, which suggests that there could be room for collaboration between AGRA and these actors in the form of knowledge sharing and learning, to improve the influence of FISFAP on the broader ecosystem.

4.8 MONITORING, EVALUATION AND LEARNING

The MEL function within FISFAP was initially insufficiently resourced and its establishment experienced a number of delays. This was largely due to the delays in the initial staffing and rollout of FISFAP, and the increasing pressure the project faced to focus on grant-making in its second year of operation. The project's strategy, TOC and workplan were revised in 2015, and the results framework was revised in March 2016 with input from Mastercard Foundation. However, the results framework was not revisited until an M&E Officer was recruited for the project in October 2016.[23] Prior to the recruitment of an M&E Officer, FISFAP would request ad hoc M&E support from the whoever was available in the broader AGRA M&E team to assist with grant development and sign off, which is a requirement before a grant proposal is submitted to the AGRA GC for review and approval. The FISFAP MEL plan and results framework were then finalised in February 2017. Significant time and effort was put into refining the indicators, consolidating indicators and reporting requirements across the project and all its grantees, and aligning this to AGRA and MasterCard Foundation reporting. This required the retrospective completion of the results framework for completed and existing grants.

This section discusses the MEL component of FISFAP according to three categories: i) Monitoring and reporting, ii) Farmer data, and iii) Learning and knowledge sharing. **Going forward, there is a need for FISFAP to focus on further consolidation in terms of monitoring and reporting, and to place greater emphasis on high quality, systematic and targeted learning and knowledge sharing, both Internally to AGRA and externally.**

4.8.1 Monitoring and reporting

In general, FISFAP's reporting to Mastercard Foundation (which includes both financial and narrative reporting) has been of a high quality. FISFAP is responsive to the Foundation's questions and requests, and delivers highly detailed narrative reports on time. However, due to the delays with the MEL component, this reporting did not include the tracking of progress against standard indicators until recently. The Year 3 quarter 3 report (June 2017) is the first report to include quantitative reporting against targets, and **there are still some instances of inconsistencies between the completed results framework for FISFAP as a whole, and the numbers reported on in the narrative report and the Indicator Performance Tracking Tables (IPTTs) that need to be addressed.** FISFAP has recognised this and has prioritised addressing it in the coming months.

While the Foundation requires quarterly reporting, this does not always align to agricultural seasonality and thus does not provide a complete picture of progress. As a result, **FISFAP places greater emphasis on the partners' progress against targets on an annual basis.** Additionally, while gender is an important area of interest for the Foundation, many FISFAP grantees struggle to

[23] Anthony Mutiga Wanjohi currently spends 50% of his time on FISFAP.

capture gender data (apart from certain grantees, such as EAFF, that are able to leverage national ID data in Kenya) and FISFAP does not require all grantees to disaggregate their results by gender.

FISFAP has the difficult task of marrying the need for a results framework that aggregates results per partner consistently, and also captures the nuance and precision required for each partner's innovation. The introduction of the IPTTs are a significant achievement for FISFAP, and while it would have been ideal to embed monitoring and reporting throughout the grant process (from grant development to contracting to implementation), to ensure both baseline data collection (where necessary) and for grantees to start thinking about key indicators and results early on, this process should continue to strengthen for the remainder of the project. Possible areas for improvement with the IPTTs are to ensure they all include guidance on units of measurement, data sources and responsibility, and to double check consistency with narrative reporting, at an aggregated and disaggregated level.

It would also be useful for the grantees to be able to capture emerging learnings, along with reasons for delays or successes, in their narrative reporting to FISFAP. This would assist the FISFAP team with the identification and consolidation of lessons learnt.

The support provided by FISFAP to grantees on M&E was and is still needed, and is greatly appreciated by them. While there is still more to be done by the FISFAP M&E Officer and grantees in terms of ensuring consistency between the IPTTs and narrative reports, FISFAP staff reported that the grantees' capacity is growing over time. **An area for improvement going forward is quality assurance (QA)**. While there are some examples of emerging good practices (EAFF is planning to move to digital field reporting by field agents that is GPS enabled to trace fieldwork progress and document evidence through pictures), the extent to which QA is happening consistently across all partners is unclear. While the FISFAP team feel that the M&E Officer dedicating 50% of his time to FISFAP is sufficient, it may be worthwhile considering increasing that in the short term, while systems and processes are being refined and finalised.

Reporting by grantees to FISFAP is currently done using Word or Excel documents, which is challenging from a version control and quality assurance perspective. To address this, an AGRA M&E information system will be implemented over the next few years. The plan is to conduct training with grantees in October 2017, and to begin reporting using the system in 2018. Some grantees have suggested alternative and easy-to-implement solutions in the interim, such as Google Docs.

4.8.2 Farmer data

The measurement of outcome and impact level results is currently only being done through the two impact studies that are due to begin shortly: i) an impact evaluation of the Umati Capital supply chain finance product in Kenya by the University of Wisconsin-Madison, ii) an impact evaluation of Esoko's Tulaa solution in Ghana by the University of Groningen. The selection of Umati and Esoko was driven by the fact that they were two of FISFAP's first grantees, operate in different countries and offer either a pre- or post-harvest solution.

The Umati impact evaluation is described as theory-based impact evaluation, but is in fact a quasi-experimental design. Our greatest concern with the proposed approach is whether it makes sense to Umati from a business perspective to withhold their offering from certain villages. A theory-based evaluation would not require the random assignment of treatment to clusters of villages, nor the withholding of treatment from any villages.

Mastercard Foundation, RAF Learning Lab and 3ie have already provided useful and insightful feedback on the Esoko impact evaluation proposal. Our team feels the most pressing concerns are the need for greater specificity of the research questions; the need for clarity on whether the study will estimate the impact of the whole package, one particular component or the bundling of different non-financial solutions with the financial product; and the ability to have a staged rollout with data collection occurring in comparable seasons and treatment being provided in a sequence that makes commercial sense for the farmers.

Our experience is that these types of impact evaluations are extremely difficult when implemented in a 'business-as-usual' environment. These are private enterprises that will not be willing to jeopardise commercial aspects of their product or service for the purpose of assessing impact. The researchers should be aware of this and should work closely with the grantees on the planning and design of the evaluations, and should be flexible in their approaches. Theory-based evaluation, such as contribution analysis[24], the use of case studies[25], most significant change technique[26], and the use of farmer-level qualitative participatory research, may be useful approaches to explore, and would cost less to implement. These types of approaches and methods would also not necessarily need to be implemented universities, but could be done evaluators or researchers that have employed these methods before[27].

Where possible, FISFAP should consider how more outcome level results can be tracked across their grantees. The ability to track these results is often dependent on the extent to which the grantee and its sub-partners interact directly with partners. Digital solutions to farmers provide a useful channel through which data can be gathered from farmers, however, this may not always be possible. High levels of illiteracy, discomfort with technology and survey 'fatigue' can make surveying clients through digital platforms challenging. Umati, EAFF and ASI are some of the grantees that could possible survey clients through their digital platforms, but will need to assess the likelihood of these challenges, as well as the need for translation into local languages. Where it is not possible for a grantee to collect the relevant data, FISFAP should explore how it could help facilitate this process, potentially through lower cost impact research (as described above) drawing on the existing impact study budget, and guidance should be sought from the Foundation and the RAF Learning Lab on the types of data they are interested in seeing.

4.8.3 Learning and knowledge sharing

Stakeholders feel that FISFAP could have done more in terms of knowledge sharing in the past and that high quality, systematic and targeted learning and knowledge sharing should be a focus of FISFAP going forward.

4.8.3.1 Internal

AGRA staff believe that the learning that is emerging from FISFAP has played an important role in AGRA as an organisation, where agricultural finance used to be seen as very complicated and was a small component of AGRA interventions. Since FISFAP, the importance of an integrated approach is now central to the delivery of AGRA's institutional strategy. As discussed in *Section 4.7*

[24] http://www.betterevaluation.org/en/plan/approach/contribution_analysis

[25] http://www.gao.gov/special.pubs/10_1_9.pdf

[26] http://www.betterevaluation.org/en/plan/approach/most_significant_change | https://www.mande.co.uk/docs/MSCGuide.pdf

[27] There are networks of evaluators that FISFAP can access to recruit suitable service providers, such as the Pelican Initiative: Platform for Evidence-based Learning & Communication for Social Change https://dgroups.org/groups/pelican, and evaluation associations (KES, AfrEA, SAMEA).

Strategy, the connections FISFAP has facilitated between FISFAP partners and other AGRA partners have led to the realisation that a lot of 'standalone' achievements exist, for example fertilizer advice or financial literacy training, but that these need to be connected to partnerships that provide financial and non-financial services (often through digital channels) to reach farmers effectively and sustainably.

FISFAP has also influenced the thinking and conversations within Mastercard Foundation, and is testing innovations that the Foundation was not really aware of before funding AGRA, such as layaway schemes and mechanisation solutions.

AGRA interviewees reported that AGRA was historically quite a siloed organisation, but that informal cross-unit learning has been facilitated by the fact that the team leaders of PROFIT and FISFAP both report to the Chief Strategy and Partnerships Officer. Both team leaders have also been invited to be a part of the Financial Sector Policy Working Group in the Kenyan National Treasury. The PROFIT leader, Ronald Ajengo also sits on a number of steering committees composed of representatives from financial institutions and invites the FISFAP team leader, Hedwig Siewertsen, to discussions to speak specifically about digital financial solutions.

Internally, FIFSAP also shares their partner profiles and news items on their partners through AGRA's communication channels, including the website, newsletter, magazine and WhatsApp. The FISFAP team comments on the grant proposals put forward by other AGRA colleagues to ensure the financial inclusion sections are well covered and hosted a workshop with a selection of 15 staff members on the Enclude report, which gave an overview of financial activities of AGRA. **FISFAP plans to continue to improve the facilitation of internal learning and has planned to host learning sessions for AGRA staff on financial inclusion**.

4.8.3.2 External

The approach to knowledge sharing within FISFAP to date has been ad hoc and opportunistic (in response to, for example, being approached by another institution on a particular topic, or funding applications), However, stakeholders reported that **FISFAP still stands out as a positive example in this regard relative to the rest of AGRA**, and this is largely driven by the FISFAP team members, particularly the team leader. Going forward, the FISFAP team recognises that being more targeted and systematic in their approach to knowledge sharing is necessary, while still remaining somewhat opportunistic as the market evolves.

FISFAP's MEL plan lays out a set of learning activities that draw on the experiences of FISFAP partners. The expectation of AGRA is that sharing lessons is a requirement of partners that receive grant funding. Some grantees reported to not have participated in any FISFAP learning activities to date, but this may because they are in the early stages of implementation and so have not yet had the opportunity to do so.

To date, FISFAP has hosted three learning events for its partners. The first was a general session for all FISFAP partners to share their experiences in December 2016, and the second was for the mechanisation partners in June 2017. The workshop during the 2016 AGRF on ICT4Ag solutions' sustainability also brought partners together. Participants reported to find the sessions useful with the majority of participants rating the December event as valuable or extremely valuable in their feedback forms. However, there was a request for the sessions to be more interactive. Partners and Mastercard Foundation reported that **targeted learning events that bring together FISFAP partners with similar solutions, but slightly different models and different country contexts, are particularly valuable as they create a community of practice without partners having to reveal sensitive commercial information**. There is also already evidence of the benefit of this; ETC did not originally

have a payment mechanism as part of their solution, but through the discussions at the mechanisation event, they have started thinking about including it. Going forward, events should follow this thematic approach, and should include stakeholders that are external to FISFAP where possible, such as potential users and financiers, where appropriate. The RAF Learning Lab also reported that it is important to bring client voices to these types of events, and this has been done successfully through videos.

FISFAP has also produced a number of learning studies. These include the Digital Harvest ICT4Ag study, Alternative data study, Assessment of the Seed Replanting Guarantee product, and Assessment of the Mobigrow product through HCD. The Digital Harvest study was driven by a need for FISFAP to better understand what makes for successful business models and increased uptake of ICT4Ag solutions, and thus better support the sector, and was very well received. The alternative data study was also considered useful and was well received in the ICT4Development conference in Hyderabad in May 2017. but the process was less successful. It went through many iterations and Mastercard Foundation program manager for FISFAP thought that there were a number of inconsistencies and insufficient consultation with experts in the field. The study has resulted in a follow up project where the use of alternative data by financial institutions will be tested in practice. **For future learning studies, FISFAP needs to ensure sufficient time is taken to develop ideas, set the objectives and learning questions to be answered, and to consult the right people, and then ensure the studies are appropriately shared** through partner meetings and industry forums, in the FISFAP countries and beyond.

As mentioned in *Section 4.5 Impact and Additionality*, FISFAP team members are already actively engaged in industry-wide forums and events in Kenya, however, **there could be greater participation by the team in Ghana and Tanzania in these types of activities to further influence the ecosystems in those countries**. For example, FSDT facilitates a number of working groups in Tanzania regarding rural and agricultural finance that AGRA could make valuable contributions to.

As a Mastercard Foundation grantee within the Foundation's RAF portfolio, AGRA is automatically a partner of the RAF Learning Lab and is highly engaged in this role. The Learning Lab is focused on generating and sharing learnings for the Foundation's entire rural and agricultural finance portfolio and produces portfolio-wide research pieces and hosts events, but has 10-15 FTE days per year to support each individual partner with their MEL activities. The Learning Lab features AGRA's learning studies on its website, which it feels is more useful for sharing to a broader audience beyond the donor community, and participates in events hosted by FISFAP. However, the Learning Lab is not the primary means for AGRA to disseminate knowledge, and the majority of this is the responsibility of the FISFAP team.

Given the minimal hands on support the Learning Lab can provide to FISFAP given its capacity constraints, it will be important for AGRA and the Learning Lab to explicitly define and agree on what support is possible going forward. The FISFAP team leader reported that a key area where the Learning Lab could train and build the capacity of the FISFAP team is in the ongoing synthesis of learnings from the portfolio, the identification of what is interesting to which audiences and to then package those into high-quality publishable learning products that appeal to an external audience. In line with this, FISFAP has recently contacted CGAP to assist their team to develop learning products in the role of learning partner.

FISFAP partners reported that the studies produced by the Learning Lab are useful, but that they think the Lab could do more to facilitate discussions at partner and sub-partner level, even if this is through online platforms. They also feel that the Learning Lab and Mastercard Foundation more

broadly should do more to showcase FISFAP's work, for example at the Foundation's annual Symposium on Financial Inclusion.

While this knowledge sharing function is included in the FISFAP theory of change, there is currently no means in place for the project to measure its effect and the extent to which it crowds in other market players. FISFAP and Mastercard Foundation should consider the extent to which it would like to do this, and then make use of some simple methods to gather this data, such as follow up telephonic interviews with event participant.

5 CONCLUSIONS AND LESSONS LEARNT

Following a slow start, FISFAP has made significant achievements to date. Some of the key emerging findings are:

- **FISFAP's targets are ambitious and, while they might eventually be achieved, they will likely not be reached within the project's lifespan**. The delays at the start of the project contributed to this. The targets set per country seem to have been devised using a loose calculation, and potentially more consideration could have been given to the country contexts when setting these. However, FISFAP's focus is on achieving the overall target number and so is flexible on which country the numbers come from. Striving for ambitious reach targets creates the risk of being soft-touch (in terms of farmers' interaction with the solutions), but this can still generate benefits and lay the groundwork for broader ecosystem influence in the future. However, the project should also consider adoption and usage as part of its target indicators.

- The main delays that have occurred within FISFAP have been due to the insufficient staffing of the project at its inception, sometimes lengthy grant development processes, as well as the slow internal grant approval process. Partners that have been affected by this include VAELL, whose final proposal took 3 months to be approved, and EAFF, who was delayed by about 2 months at the start of their grant agreement while it was being finalised (AGRA has agreed to extend their grant term to account for this). **Delays are inevitable but the project team should be cognisant of the impact this has on FISFAP's pipeline and grantee implementation plans**, particularly when these are dependent on harvesting cycles, which then has a knock-on effect on the ability of the grantee to achieve targets. AGRA management has developed 'trackers' and performance targets to be able to manage the timelines of the grant process, which were considered too long.

- **Interaction with beneficiaries, in the form of financial literacy and capacity building that sensitises farmers and drives a behaviour, is critical to the success of these types of innovations**, particularly as they are starting out. Targeting early adopters in the early stages of rollout with these 'high touch' interventions is an important strategy for scaling up. FASL and ASI are doing this, as is KCB as part of their scale up initiative (funded directly by Mastercard Foundation). EAFF also makes use of field agents to help build the trust of farmers in their platform. EATIL targets lead farmers with the provision of finance for mechanisation, and gauges and encourages interest in the use of the mechanisation through their field agronomists. Umati works with agri-SMEs and so does not have direct contact with farmers. However, PIL and Acre Africa could consider adopting this approach given their early stage of implementation. This has cost implications that need to be factored in to the business case of the product or service, but are important in building farmers' trust in contexts where trust levels in technology and financial institutions are often low.

- Face time with farmers is also important in differentiating a solution from numerous others that are being tested by other donors. **FISFAP operates in a context where donor 'crowding' is a challenge**, and donor funded solutions often compete with each other. Potential FISFAP grantees may also seek funding from other donors, where financial sustainability requirements and rigour are not as high. This is the case, for example, in Northern Ghana, where Esoko farmers reported that they often sign up for offers provided by donor-funded programs hoping to benefit from them, despite being unsure what the offers are about. However, this does not suggest that FISFAP should not seek grantees in these areas, but should acknowledge the greater investment in farmer face time and sensitisation that will be required there.

- **Grantees' that have adopted client-centric approaches have been successful, but this has often required external support** in the form of funding and technical assistance which is then internalised within the organisation. PIL received support from CGAP to adopt an HCD approach, and KCB and Acre Africa received support from AGRA to do this. Esoko also received external funding, and while the first pilot of their platform wasn't as successful as anticipated, they are using the lessons learnt during this to inform the second pilot. EAFF and VAELL have not adopted an externally-funded HCD approach, but their implementation teams collect feedback from the field and uses this to inform the design process, which appears to be working for them. Umati Capital developed its product using learnings from a previous pilot, the process of which could have been improved through greater client-centric research and piloting.

- Understanding and overcoming gender dynamics and barriers facing female smallholder farmers in accessing financial and non-financial services is a particular interest of Mastercard Foundation, however, FISFAP does not require grantees to achieve and report on gender-differentiated targets. FISFAP places greater emphasis on building farmers' resilience through a financially sustainable solution, and the funding of private enterprises means that hard gender targets cannot be imposed on them if they do not see a commercial case for doing so. Despite this, a number of partners have set targets for the number of female farmers they would like to reach, including VAELL, EAFF, PIL, EATIL, Esoko and SELF Microfinance, although not all of them are reporting against these targets yet.

- The FISFAP team is currently appropriately staffed **and the strength of the team, with their sectoral knowledge and networks in the three FISFAP countries, as well as their ability to work together to select the right partners, has been a significant driver of the projects' success,** particularly its additionality (which is heightened through the TA provided by the FISFAP team to grantees).

- **Given the stage of implementation of the current portfolio, it is too early to assess the impact of the project on farmer outcomes or its influence on the broader ecosystem**. However, given the FISFAP theory of change, and how the project is progressing along this, it is likely that this impact will be achieved. However, there are likely more opportunities for FISFAP to participate in industry forums and debates, particularly in Tanzania and Ghana, to increase its ecosystem influence.

- **The additionality of FISFAP is high.** Most grantees, such as EAFF, EATIL, VAELL and Esoko, would be pursuing these innovations regardless, but have benefited from the FISFAP support and partner selection process, which has catalysed and sped up the process. Some grantees, such as PIL and SELF Microfinance, would likely not have been able to pursue their innovations without the financial support provided by AGRA. However, the TA provided by FISFAP in particular, is the particular driver of additionality – while the grantees may have been able to access funding elsewhere, they may not have had the same level of access to TA.

- **It is too early to assess the financial sustainability of the solutions funded by FISFAP,** and grantees are hesitant to share sensitive financial information, but it is clear that grantees have a vested interest in ensuring these solutions are successful and sustainable, and that this is one of the core requirements by the FISFAP team. One concern is that the profitability projected in the grantees' financial models is often dependent on the achievement of high outreach targets and this level of outreach (and thus profitability) often takes longer than anticipated, which is a consideration for the FISFAP team.

- **The MEL function within FISFAP has strengthened significantly over recent months, however, there are still improvements to be made to monitoring and reporting processes**, such as reducing inconsistencies between narrative reporting, IPTTs and consolidated quantitative reporting to Mastercard Foundation, improving quality assurance of partner data, and moving to an electronic means of reporting. FISFAP recognises that this is a priority and is currently addressing these concerns.

- **Knowledge dissemination is an important component of FISFAP.** This is currently being done in an ad hoc way, and could be strengthened to be more structured and targeted going forward, while remaining opportunistic as the market evolves. The project could also increase the regularity of its learning activities. In terms of learning events, the facilitation of targeted events that focus on a type of solution that multiple grantees are pursuing have been particularly beneficial. Mastercard Foundation and RAF Learning Lab could also assist in showcasing FISFAP's achievements more at its own events. While the RAF Learning Lab has a small amount of days available to support FISFAP, the teams could work on defining this support more – building the capacity of the FISFAP team to identify, consolidate and share lessons on a regular basis and to a quality suitable for a broader audience would be particularly valuable.

- **The FISFAP strategy and TOC underwent a complete overhaul one year into the grant period and these changes have given the project much more strategic direction, and increased the project's cost effectiveness.** The learning that is emerging from FISFAP has also played an important role in AGRA as an organisation. Since FISFAP, the importance of an integrated approach is now central to the delivery of AGRA's institutional strategy. AGRA's new strategy is also well-aligned to the new direction of Mastercard Foundation's strategy.

6 RECOMMENDATIONS

It is imperative that the solid foundation that has been built in growing the FISFAP team, selecting and supporting partners that aim to provide client-centric, financially sustainable solutions for farmers, and knowledge sharing, be leveraged to continue to expand reach and catalyse innovation in the smallholder farmer sector. We suggest that AGRA consider and adopt the following recommendations, which were developed based on the findings and analysis of the evaluation:

- **AGRA should apply to Mastercard Foundation for a no-cost extension to the FISFAP grant for one year**. This is to account for the one-year delay the project experienced at its start. The additional year will likely not require the same full-time resources dedicated to the project, but would provide grantees with the time needed to extend reach and usage of their solutions. FISFAP resources could be solely dedicated to supporting existing grantees and measuring their progress towards targets during that year.

- **FISFAP should expand the target indicators that it reports on to Mastercard Foundation to include adoption and continued usage (retention) of the solutions provided by grantees**.

Financial inclusion is concerned with reach, as well as the usage of financial products and services and the quality of those interactions. These indicators are also important variables in the ability of a solution to be financially sustainable or not. While the individual partner IPTTs include indicators related to this (e.g. value of loans/transactions, portfolio quality), these should be included in those indicators that AGRA reports on to the Foundation.

- **Where possible, AGRA should work on streamlining grant development processes, and on speeding up the slow grant approval process within AGRA**. Grant proposals should be cognisant of and prepare for possible delays in approval. Where implementation is dependent on seasonality, this should be taken into account and proposals should build in possible delays in order to still rollout at the correct time in the harvest cycle.

- **FISFAP should continue to support partners (through TA and consultancy support) in becoming more client-centric** in terms of how they approach customer segmentation, conduct research to understand client needs, and use that information to adapt their products and services.

- **Ensure that grantees sufficiently account for the needed interaction with beneficiaries, in the form of financial literacy and capacity building that sensitises farmers and drives a desired behaviour**. This has cost implications that need to be adequately factored in to the business case of the product or service.

- To avoid delays in implementation caused by dependencies on sub-partnerships and the time taken to secure third-party relationships, the **FISFAP team could assess the buy-in and ability to implement of proposed sub-partners put forward in concept notes during proposal phase**. FISFAP partners could also explore the extent to which formal agreements with sub-partners and third parties can be put in place prior to grant award.

- **Given Mastercard Foundation and AGRA's mandate to reach female smallholder farmers, FISFAP should encourage grantees to target women**. As a first port of call, FISFAP should fund a learning study on 'The business case for serving female smallholder farmers' – this should include an in-depth analysis of the different business models funded under FISFAP that unpacks the costs and benefits of adapting approaches that overcome barriers facing women. This can be shared with grantees through a targeted learning event for all partners.

- If grantees are still not encouraged to target female smallholder farmers, **FISFAP should consider setting gender-disaggregated targets and amend grantee contracts to link grant disbursements to the achievement of these targets**.

- FISFAP is currently adequately staffed for its core functions. **However, the project should go ahead with staffing the West Africa PO position** to extend the additionality of FISFAP to AGRA and Mastercard Foundation within the region and francophone countries specifically.

- **The funding provided by MasterCard Foundation to AGRA for FISFAP should not be seen in isolation of the organization as a whole.** Certain activities that are currently being funded by FISFAP, such as the FISFAP team's contributions to Yieldwise, the AGRA Ghana and Kenya business plans, and PROFIT (among others), contribute to developing the mandates of both AGRA and the Foundation in the region and support the movement towards integrated programming and greater ecosystem strengthening. As such, FISFAP should define what these activities are, what their purpose is in the broader ecosystem, and budget line items should be allocated to them as part of FISFAP reporting.

- **The FISFAP teams in Ghana and Tanzania should participate more in industry forums and debates to increase the project's ecosystem influence**, such as donor working groups and regulatory review panels.

- **FISFAP should consider requiring its partners to report annually on the business case of their innovations.** This could include reporting on the actual achievement of the financial projections included in their proposals, and revising those based on implementation during the preceding year. This would allow the final evaluation team to conduct a more in-depth analysis of the financial sustainability of FISFAP-supported initiatives.

- **FISFAP should rethink the impact studies and consider reallocating the impact budget.** The types of impact evaluations proposed for Umati and Esoko are extremely difficult when implemented in a 'business-as-usual' environment. Theory-based evaluation, such as contribution analysis[28], the use of case studies[29], most significant change technique[30], and the use of farmer-level qualitative participatory research, may be useful approaches to explore, and would cost less to implement. These types of approaches and methods would also not necessarily need to be implemented universities, but could be done evaluators or researchers that have employed these methods before[31]. Shifting this approach would also allow the team to gather more outcome-level farmer data from more grantees.

- **As the innovations funded by FISFAP progress, and their success is documented, AGRA should consider which of these can be replicated in other countries,** either by the existing partners that have a presence in other geographies, or by different partners adopting the proven models. AGRA can explore different means through which this can be funded e.g. through the Mastercard Foundation Fund for Rural Prosperity or an internal AGRA 'acceleration' fund.

- **FISFAP should focus the next few months on consolidating its monitoring and reporting processes.** This includes reducing inconsistencies between narrative reporting, IPTTs and consolidated quantitative reporting to Mastercard Foundation, improving the quality assurance of partner data, and moving to an electronic means of reporting.

- **FISFAP should be more structured and targeted in its approach to knowledge dissemination going forward**, while remaining opportunistic as the market evolves, and increase the regularity of its learning activities. In terms of learning events, FISFAP should focus on the facilitation of targeted events that focus on a specific theme e.g. a type of solution that multiple grantees are pursuing (e.g. layaway schemes), a cross-cutting challenge (targeting and delivering to female farmers), or common support functions (e.g. effective sensitisation and marketing to farmers).

- **To leverage the learning budget further, FISFAP could consider implementing more smaller learning activities.** As the FISFAP team build its skills and capacity in extracting learnings from across the portfolio and converting these into publishable learning products (such as case studies, learning briefs, farmer videos and guidance notes), they should explore simple

[28] http://www.betterevaluation.org/en/plan/approach/contribution_analysis

[29] http://www.gao.gov/special.pubs/10_1_9.pdf

[30] http://www.betterevaluation.org/en/plan/approach/most_significant_change | https://www.mande.co.uk/docs/MSCGuide.pdf

[31] There are networks of evaluators that FISFAP can access to recruit suitable service providers, such as the Pelican Initiative: Platform for Evidence-based Learning & Communication for Social Change https://dgroups.org/groups/pelican, and evaluation associations (KES, AfrEA, SAMEA).

and inexpensive means of knowledge sharing to a broader audience, such as blog posts, newsletters and emails (shared to an up-to-date email database of interested parties).

- **Linked to this, AGRA should define and agree on their support from the RAF Learning Lab.** Specifically, the Learning Lab could train and build the capacity of the FISFAP team in the ongoing synthesis of learnings from the portfolio, the identification of what is interesting to which audiences and to then how to package those into high-quality publishable learning products that appeal to an external audience. FISFAP has recently contacted CGAP to assist their team to develop learning products in the role of learning partner, and could further build this function within the FISFAP team with their support.

- **Mastercard Foundation and RAF Learning Lab should assist in showcasing FISFAP's achievements more at their own events**, such as the annual Symposium on Financial Inclusion hosted by the Foundation.

- **FISFAP and the Foundation should consider the extent to which the project should measure the effect of its learning activities**, and explore how it can possibly piggyback the data collection the RAF Learning Lab plans to do to understand its influence on the market, which includes follow up interviews with learning event participants.

- **Given Mastercard Foundation's strategic focus on youth livelihoods, with financial inclusion as an important means through which this is achieved, and agriculture as a core sectoral focus**, AGRA should consider engaging partners that specifically target young people (either as smallholder farmers or through agri-SMEs) and focusing a learning activity on the ability to create employment and enterprise opportunities for young people in agriculture through the provision of bundled services that leverage technology.

7 APPENDIX 1: PARTNER PROFILES

7.1 KENYA COMMERCIAL BANK (KCB)

7.1.1 Overview of solution

KCB received a six-month grant from FISFAP to develop and pilot a USSD platform to service smallholder farmers with an end-to-end finance solution. This platform, known as Mobigrow, is KCB's strategic response to the largely underserved agriculture sector in Kenya.

Mobigrow offers smallholder farmers the opportunity to access input finance and crop insurance, along with links to aggregators so that they are able fetch better prices for their produce. Farmers register on Mobigrow in partnership with cooperatives, SACCOs, or aggregators. Once registered, farmers are then able to apply for an input loan from KCB, which is issued to the farmer via a voucher in their e-wallet. After the loan has been approved and issued to the farmer, he or she is then able to purchase inputs using mobile money from KCB-approved agro-dealers, who redeem the e-voucher from KCB. Thereafter, once the farmers have harvested their crops, they sell their produce to the aggregator, who pays them the amount owed to them less their outstanding loan repayment. The payment is done via mobile money, and both the agro-dealers and the aggregators are also required to have accounts with KCB. The loan repayment is structured such that the farmer only makes small repayments over the life of the crop, and one final lumpsum payment at harvest and sale.

The Mobigrow pilot, and FISFAP support, came to an end in December 2016. However, KCB has leveraged this pilot to motivate for further support, and has since received a grant from Mastercard Foundation to scale the operation to 2 million farmers over five years.

7.1.2 Key metrics

The following key metrics apply to the Mobigrow pilot supported by FISFAP. The pilot was completed in December 2016.

Metric	Value
Total approved grant amount	USD 385 869
Total amount disbursed	USD 299 675
AGRA contribution as % of total cost	100% KCB contributed resources in kind.
Target number of farmers	6 000
Number of farmers reached	2 348

7.1.3 Implementation successes and challenges

KCB experienced a number of challenges during implementation. These included language and literacy barriers. The majority of farmers are uneducated and do not always speak Kiswahili, let alone

English. KCB therefore required an interpreter in the field, particularly in the pastoralist areas. They are still faced with the challenge that the Mobigrow platform is currently only offered English. While there are plans to offer it in Kiswahili, this may prohibit mass uptake.

A further challenge noted by KCB was the state of the farmer data they obtained from the farmer based organisations (FBOs) for farmer registration. This data was reportedly very 'dirty' and required a great deal of cleaning, which consequently delayed implementation as KCB only had a few resources dedicated to the pilot at the time and a great deal of their time was spent on cleaning data.

KCB also experienced external challenges related to mobile network operator costs. According to KCB, individuals incur charges from their mobile network operator when opening up an account with KCB on their mobiles. However, many of the farmers would not have any mobile money on their phones at the time and so KCB staff would have to sponsor the farmers the money required to set up the accounts.

Despite these challenges, KCB has also experienced a great deal of success. The KCB brand is reportedly trusted by farmers, which has helped them in attracting and registering farmers on the platform. KCB is aware that they need to capture the "early adopters" who tend to be more literate farmers with larger farms and more advanced needs (for example asset finance). These farmers will be the ones to promote the platform to other farmers, or "late adopters". In this way, KCB is relying heavily on word of mouth to attract farmers to the platform. This was one of the outcomes of the HCD research conducted by Frog.

KCB now has a full team dedicated to the scale up of Mobigrow and is currently six months into their scale up operation which was largely informed by the findings of the pilot.

7.1.4 Understanding client needs

According to KCB, Mobigrow was initially designed "in a boardroom" and consequently achieved very low uptake in the initial stages of the pilot. It was therefore decided that KCB should conduct client research to investigate how Mobigrow could be improved. The initial AGRA grant had made budget available for a risk management specialist to assist in the development of the platform; however, given that KCB had their own risk management expertise in house, this budget was reallocated towards hiring a company called Frog to undertake a HCD client research process. This research was used to understand the low uptake previously experienced by KCB, and to assess how the product should be redesigned to increase uptake. The findings of this research process were used to redesign the Mobigrow platform, which is now being scaled up.

7.1.5 Business case

According to the KCB staff consulted, there is a strong commitment from the senior management of the bank to capture this segment of the market and expand into the agriculture sector. They have therefore been willing to commit resources to the pilot and the subsequent scale up operation. A Mobigrow business unit was established at the end of 2016 and the KCB retail team is an integral part of the scale up operation to ensure that they are getting the numbers required to become profitable. Mobigrow has not yet broken even, but is expected to do so within two and a half years (half way through the Mastercard Foundation grant). KCB staff also noted that there has been a marginal improvement in the bank's bottom line as they have managed to reduce the cost of operations through the development of the Mobigrow platform.

KCB considers themselves a first mover in terms of commercial banks offering this kind of digital solution in the agriculture sector, and is hoping to capture a substantial portion of the market through the Mobigrow platform. They have reported that farmers are expressing appreciation that one of the big banks in Kenya is going out of their way to meet their needs, and this appreciation is likely to generate a degree of loyalty from this target group, which they expect to translate into more business in the future.

7.2 UMATI CAPITAL

7.2.1 Overview of solution

Umati Capital (hereafter Umati) is a non-bank financial institution offering supply chain finance (SCF) to smallholder farmers. This product, a form of trade financing, is a post-harvest credit product that covers the period between delivery of the produce by the farmer and payment by the buyer.

The solution is aimed at addressing cash flow difficulties that deter farmers from selling to professional buyers who might only pay for the produce a few months after receiving it, for example after they have processed the raw produce and sold it on to buyers up the value chain. Instead of waiting months to receive payment, many farmers choose rather to accept lower prices from informal traders who pay cash on delivery for the goods. Farmers can make significant losses this way; however, they are often forced into operating in this manner as they require the cash flow for other expenses such as household goods, education, healthcare, or other farm inputs.

The SCF product addresses this challenge by offering farmers the opportunity to access up to 80% of the invoice value they are owed through mobile money at any time before they are paid by the buyer. The buyer will then pay Umati the full purchase price, and Umati will pay the farmer the balance of the payment (20%), less the interest owed, which is typically in the region of 3-4% of the purchase price. The logic behind the SCF product is that the possibility of getting cash on delivery will give farmers a reason not to side sell to traders at low prices, and instead choose to sell to a professional buyer who offers a better price and other additional services like input credit and extension services.

Umati is using the AGRA grant to develop an efficient and effective outreach strategy, including marketing and capacity building material, and delivery channels that facilitate enrolment of farmers to the SCF product.

7.2.2 Key metrics

Metric	Value
Total approved grant amount	USD 500 000
Total amount disbursed	USD 250 001
AGRA contribution as % of total cost	6%
Target number of farmers	50 000
Number of farmers reached	1 667

7.2.3 Implementation successes and challenges

Umati is the second longest FISFAP partnership, which started at the beginning of 2016. However, despite being more than a year and a half into implementation, they have only reached 1 667 of the 50 000 farmer target (3%) to date. This is due to a number of implementation challenges.

One of the main issues cited by Umati is the fact that the retail sector in Kenya has experienced a great deal of turbulence over the last couple of years and big retail supermarkets have not been

paying their suppliers on time. This has a ripple effect downstream which means that intermediary buyers are also unable to pay their suppliers, the smallholder farmers, on time. This uncertainty, coupled with the fact that farmers do not know, and therefore do not trust, Umati, has resulted in slow uptake of the product.

A further challenge encountered by Umati has been identifying their clients. To qualify for Umati's SCF, there must be a formal contract or agreement in place between a supplier and a buyer. The solution thus works best in a situation where farmers are aggregated and able to sell to professional buyers as a group. Therefore, Umati does not approach farmers directly, but rather goes through the end-buyers who already have organised supply chains and eligible smallholder farmers that might be able to benefit from SCF. According to the FISFAP team leader, Umati took some time to identify exactly who these target clients would be (smaller SMEs buying directly from farmers), which has caused some delays in implementation. A further challenge is that the supply chain management software tool was initially too sophisticated (and expensive at USD 10 000) for this type of client, so there has been time spent redesigning the solution to be simpler and cheaper.

Lastly, a further issue encountered by Umati thus far is that because they work with the buyers and not the smallholder farmers, it is the buyers that inform Umati when the farmers have delivered their produce and how much the farmers are owed. Umati does not have sight of whether or not this information is accurate and timely, which poses a reputational risk to Umati.

FISFAP has suspended grant disbursements due to the failure of Umati to reach their quarterly milestone targets. When certain targets are met, FISFAP will resume the grant disbursements.

7.2.4 Understanding client needs

Umati was established in 2012 and piloted its first products in late 2013 with a dairy processor, Eldoville Dairies. Umati started out by offering invoice discounting to the processor, but soon identified an opportunity to also finance the smallholder farmers supplying the processor. Therefore, it was through this pilot that Umati came to understand how smallholder farmers might be able to use a SCF product and what benefit such a product could bring.

In a further effort to address the challenge that farmers do not know about Umati or understand the SCF product, Umati has worked with MicroSave and Arifu to develop financial literacy material that will be offered to smallholder farmers via USSD code.

7.2.5 Business case

Umati is a young organisation with the sole aim of providing finance, through the use of technology, to agri-business supply chains, retailer value chains and fast moving consumer goods manufacturers. They view the underserved smallholder farmer market as a huge opportunity to offer a disruptive product in the financing industry, and therefore have a vested interest in making this SCF product successful enough to scale. While they have not been performing as well as anticipated up until this point, Umati projects that they will break even in the next nine months.

Umati has secured funding from Oikocredit and FMO to on-lend for SCF. With funding secured, the focus will now be on increasing their buyer client base so as to reach more smallholder farmers, and generate more revenue.

7.3 EASTERN AFRICA FARMERS FEDERATION (EAFF)

7.3.1 Overview of solution

Smallholder farmers in Kenya are confined to the poverty trap as they are unable to expand their farming activities due to low incomes and limited access to credit. On the input side, smallholder farmers do not have finances and/or access to certified inputs such as seeds and fertilisers, while on the output side, farmers usually sell on an ad hoc basis to middlemen and receive poor revenue as a result.

The Eastern Africa Framers Federation (EAFF) has partnered with MO-DE to develop e-Granary, an output aggregation and marketing platform to address the access to markets and credit challenges faced by smallholder farmers. e-Granary is a mobile platform that provides farmers with a history of their business transactions; information on input use and projected production; access to affordable loans based on actual or expected production; and, virtual produce aggregation and forward contracting.

Due to the various activities in the agribusiness value chain such as input purchase, planting, harvesting, processing and selling produce, smallholder farmers are not well-positioned as key value chain actors. This is because they lack access to markets and affordable credit. Through e-Granary, the creditworthiness of a farmer is determined by collecting pre- and post-harvest farmer data and identifying off-takers to purchase the produce, via mobile money, at a higher price than informal traders would pay. Farmers are further de-risked by working through farmer groups that have an incentive to ensure farming success so as to get a higher share of the profits. The project focuses in the Central, Rift Valley, Upper Eastern and Western regions of Kenya and targets the rice, maize and pulses value chains.

7.3.2 Key metrics

The table below provides a summary of the grant and other key indicators:

Metric	Value
Total approved grant amount	USD 830 213
Total amount disbursed	USD 201 328
AGRA contribution as % of total cost	18%
Target number of farmers	90 000
Number of farmers reached	25 500 smallholder farmers are registered on the platform and 2 400 farmers have accessed credit.
Number of women reached	Over 50% of smallholder farmers registered on the platform.

7.3.3 Implementation successes and challenges

During the pilot phase, the e-Granary solution has sold 30 000 tons of maize and soya crops. The evaluation team found that the success of the e-Granary solution can be attributed to the use of

technology that is low-touch, combined with field agents that work with smallholder farmers in their communities to help build the trust of the product and educate farmers on how to best make use out of the platform. The platform has registered 25 500 farmers and approximately 2 400 smallholder farmers have accessed loans in the recent farming season. From this number, 56% of the smallholder farmers registered onto the platform and 70% of the farmers accessing loans are women thereby surpassing the set women target number.

Some of the challenges faced by the e-Granary platform include repeatedly having to educate farmers on the importance of the platform and how it works. This is because many farmers register on the platform and attend training but do not make use of the platform. The strength of the various farmer groups that EAFF works with varies so there is need to provide weak groups with additional guidance on how to use the platform. Lastly, capturing the data collected on the platform is challenging as sometimes the data input by farmers is incorrect and there is need to verify and correct the data. Given the recent drought in Kenya, e-Granary was unable to complete the data aggregation as farming activity was low and farmers did not record any data onto the platform. The lack of data collection by farmers made it difficult for EAFF to provide a credit score for the farmers as not all the required data was available. This has a negative impact on the following farming season as farmers will not be able to successfully apply for credit from financial institutions.

7.3.4 Understanding client needs

Although, no formal research and design process was conducted to inform the design of the e-Granary platform, EAFF and MO-DE are actively working to improve the platform through feedback from fieldworkers on the ground. The platform has been tailored to the Kenyan market and is offered in Kiswahili to make it more user-friendly.

7.3.5 Business case

EAFF is still in the initial stages of implementation and will only prove a business case if a large number of farmers are reached and using the e-Granary platform. Current cashflow projections show that the business will breakeven with approximately 90 000 active farmers. Given, the current level of success attained, EAFF might possibly achieve this number. However, there are other factors to consider that will result in the project's success and sustainability.

The key risk factors include the number of contracts converted into real sales, farmer participation on the platform, ease of access and repayment of loans, revenue streams generated and the smooth operationalisation of the platform.

EAFF is positive that e-Granary will be a profitable and financially stable once initial costs are progressively reduced and a critical mass number of farmers is mobilised onto the platform. Using data collected during the pilot phase, EAFF is doing a production costing to analyse which goods are more productive and profitable and will revise the platform services. According to key informant interviews with the EAFF, e-Granary is well-positioned to overcome any competition in the market. The platform acts as a data aggregator for farmer information and any other company can easily partner with the various components to work towards adding value to smallholder farmers in Kenya These partnerships will include EAFF charging other service providers for providing them with the relevant farmer data and has potential to be a substantial revenue stream.

7.4 VAELL

7.4.1 Overview of solution

Mechanisation is important for agricultural production and has not been well-utilised in the context of smallholder farmers in developing countries. The lack of sufficient farm power compromises the ability to sufficiently cultivate large plots of land, and therefore lowers production. VAELL has launched a rental product, TingA, that provides agricultural mechanisation services to smallholder farmers. These services include ploughing, chiselling, harrowing, spraying, planting and harvesting.

TingA is a timeshare leasing solution whereby farmers are able to order and plan for mechanisation services using the TingA app, SMS short code, and TingA community hubs. Farmers only pay for mechanisation services when using the equipment and 40% of the total rental cost is paid upfront via mobile money services. Farmers are charged either per hour or acre when hiring the mechanisation services. All farming equipment offered on the TingA platform is owned by VAELL or a third-party and is operated by a TingA representative when hired by farmers. There are two approaches to the TingA product offering:

- TingA app/SMS where individual farmers book for direct services one week in advance; and,
- TingA community which is the leasing of equipment with implements where farmers from the same community can form a group and book equipment. This involves farmers providing a schedule on how TingA services are to be delivered.

TingA is offered through strategic partnerships with financial institutions such as OikoCredit and Family Bank that provide smallholder farmers with access to financial services such as credit, bank accounts, insurance and payment services that allow farmers to lease or purchase machinery from VAELL.

7.4.2 Key metrics

The table below provides a summary of the grant and other key indicators:

Metric	Value
Total approved grant amount	USD 500 240
Total amount disbursed	USD 0
AGRA contribution as % of total cost	47%
Target number of farmers	20 000
Number of farmers using the TingA platform	6 000
Number of farmers trained in financial skills, agronomy and farm mechanisation technology	N/A

Target number of female smallholder farmers using the TingA platform	2 000

VAELL has not yet selected any impact indicators for the TingA leasing solution as they have been focusing all their resources towards operations such as servicing equipment and delivering it on time. They do not think the project is well developed to collect data towards performance.

7.4.3 Implementation successes and challenges

VAELL, has not yet started implementing the TingA leasing solution as they are still in the process of finalising the grant award documentation with AGRA. Through key informant interviews, the evaluation team found that the TingA solution has experienced a few implementation challenges during the initial pilot phase due to the following reasons:

- The use of the TingA platform has not been successful as smallholder farmers are weary of using digital platforms to hire equipment and prefer physically visiting a mechanisation hub to verify the quality of the equipment that they will be using. VAELL, is currently working to ensure that TingA is more relevant to farmers and have suggested the use of WhatsApp messaging in place of the current android app and USSD short code.
- In order to meet equipment demand, VAELL requires approximately $7 million in additional financing to provide farmers credit, purchase and brand equipment, and create TingA community hubs to store the equipment.
- VAELL is still in the process of securing more partnerships with financial institutions that will provide farmers with the required financing to purchase the equipment. This credit offering will be provided against expected and actual production.
- There is a long-time period for farmers to change agricultural behaviours. VAELL is seeking to run a pilot of training farmers to move from manual to mechanised agricultural practices.
- There have been implementation delays due to the lengthy grant development process with AGRA.

7.4.4 Understanding client needs

VAELL currently has a project implementation team that collects feedback from the piloting of the TingA solution and informs the design process of the service offering. As a part of the grant agreement with AGRA, VAELL has requested support to assist with the redesign of TingA so as to make the digital platform more relevant for smallholder farmers and improve the service offering.

7.4.5 Business case

VAELL is unsure of whether there is a business case for the TingA in Kenya as they initially projected that the project would breakeven in 2 years but majority of the interest that has been received is from outside Kenya. As a result, VAELL needs to revise its initial project dynamics and projected profitability. Additionally, there are certain aspects of the project that are profitable (pre-harvest cycles) while other are loss making (post-harvest equipment) thus there is need to capture more information regarding this. VAELL plans to engage AGRA to assist with the financial sustainability of TingA.

7.5 ESOKO

7.5.1 Overview of solution

Access to and proper use of inputs such as fertilizer and pesticides are key to increasing productivity. However, input usage among smallholder farmers in Ghana is low. Among the reasons for this low input usage are the high costs of inputs and lack of access to finance to purchase these inputs. To address this challenge, Esoko developed 'Tulaa', a lay-away mechanism that creates a virtual marketplace for inputs and a mobile wallet to enable farmers to save toward the purchase of those inputs. The farmer sets a goal/target (working with Tulaa and the input provider) which they then save weekly or monthly towards in their registered mobile wallet. Once they have reached the target, the inputs are delivered by the supplier at a central location in each community.

Tulaa is offered through strategic partnership with agro-input dealers (currently RMG Concepts) and Mobile Network Operators (MTN, Airtel, Tigo, and Vodafone). Though Ghana does not have mobile money interoperability, the platform is made network agnostic through a partnership with SMSGH MPower, a payment aggregator. Tulaa targets Maize, Rice, and Soybean value chains in the Brong Ahafo, Northern, and Volta regions working through FBOs and android enabled local agents.

7.5.2 Key metrics

The table below provides a summary of the grant and other key indicators:

Metric	Value
Total approved grant amount	USD 867 788
Total amount disbursed	USD 268 554
AGRA contribution as % of total cost	32%
Target number of farmers using the platform to purchase inputs	15 000
Number of farmers using the platform to purchase inputs	103 smallholder farmers in the Northern and Brong-Ahafo regions have managed to save and purchase inputs worth about USD 2 834

7.5.3 Implementation successes and challenges

Out of the 1000+ farmers registered on the Tulaa platform, only 10% of them have managed to purchase inputs – well below Tulaa's and RMG Concepts' expectations. According to key informant interviews this was due to a number of reasons:

- The product was introduced quite late in the production cycle and smallholder farmers did not see a need for the product. Based on this, it is expected that uptake and usage will be higher in the following season.
- Esoko's farmer sensitisation and education regarding the product had some shortcomings. Focus group discussions with farmers revealed that they were not well acquainted with the service, and in some instances, registered for the product without even knowing what inputs they would receive. Additionally, discussions with RMG concepts suggest that the lack of trust in

mobile financial services was not sufficiently accounted for during farmer sensitisation which had a negative impact on farmer savings. The target regions were hit by a number of fraudulent scams by MFIs which made farmers reluctant to take part.

- Farmers often do not have enough money to save on a regularly basis, and often require some form of credit to be able to purchase inputs. During the design of Tulaa, this need was recognised and credit was meant to be incorporated as an element within the platform. This is yet to be done and could have negatively impacted the perceived value of the product.
- Communication between Esoko and RMG Concepts also seems to have been broken/halted. This is based on discussions with RMG Concepts officials who say they haven't heard much from Esoko since the order purchase by the first 103 farmers. This could have negative implications for future partnership between the two organisations unless engagement is reinvigorated.

7.5.4 Understanding client needs

Esoko conducted human centred design (HCD) research in selected pilot communities to understand product design considerations from farmers' perspectives. The findings from this research influenced the Tulaa product design and implementation. Since attitude and behaviour change takes time, Esoko seeks to continue working with researchers to identify the incentives and disincentives for farmers putting funds aside for inputs. The findings from this research will be used to promote uptake of the Tulaa product.

7.5.5 Business case

In terms of proving a business case, Tulaa has been limited given its recent nature. According to Esoko, they are working to mainstream the learnings from the pilot to make sure that the next season reports positive results. At this point, Esoko is convinced that the project will be financially sustainable. In addition to providing layaway services, they look to expand their services to include credit and has a potential partnership with FASL in the pipeline to provide this. Additionally, Esoko is looking to have a wider variety of input providers thus diversifying the revenue stream.

The key risk for financial sustainability for Tulaa is getting economically viable smallholder farmers that can transact on the platform. This was a major learning from the pilot given a 10% participation rate. Therefore, Esoko needs to not only focus on registrations but registrations that will lead to usage. According to Esoko this was partly because of the incentive structure for their staff, which would go into these communities with a sole purpose of increasing registration onto the platform. However, this time round Esoko plans to conduct quick assessments before registering people to determine commitment. How this will work however is not clear.

With these changes in mind Esoko targets 25 000 – 30 000 smallholder farmers registered by March 2018. According to their estimates if about 25% of those farmers used the layaway product, it will show vendors that Esoko can aggregate enough demand to make the product profitable.

7.6 AGRIBUSINESS SYSTEMS INTERNATIONAL

7.6.1 Overview of solution

Since most smallholder farmers in Ghana lack access to formal financial accounts and services, they are typically paid in cash which predisposes them to robbery attacks and other risks associated with cash payments and carrying huge sums of money. Additionally, the smallholder farmers lack formal mechanisms to save any money they have in surplus to investment in their farms, children's education, or family's healthcare.

To address this challenge ASI is implementing a project titled "Smallholder Financial Inclusion (SFIN)" which seeks to develop the mobile money ecosystem to enhance uptake of mobile money through the offering of appropriate financial services and products (payments, low-cost saving and high interest earning investment accounts). The SFIN project will provide a digital payment and saving solution so that farmers can receive payment for their produce in a mobile money wallet and also save their money in a bank account. This is done through building partnerships with MNOs (Tigo and Vodacom), value chain actors (Heritage Seed, Savanna Food Marketing Company Limited, Masara N'Arziki, and Shinkafo-Buni Farmer Coop), and financial service providers (Dalex Finance and Capital Bank) to develop appropriate and affordable digital financial products and services for smallholder farmers in Northern Ghana.

7.6.2 Key metrics

The table below provides a summary of the grant and other key indicators:

Metric	Value
Total approved grant amount	USD 594 981
Total amount disbursed	USD 102 009
AGRA contribution as % of total cost	34%
Target number of farmers	10 000
Number of farmers reached	0

7.6.3 Implementation successes and challenges

The project is still in its early stages and no mobile payment has been completed. However, some notable achievements have been made. Thus far: ASI has trained 3 947 farmers selling to 4 off-takers in mobile wallets; 1 437 farmers have been enrolled for mobile payments; 3 500 rice farmers linked to Shinkafo-Buni received USD 813 953 in credit from Dalex; and a total of 454 farmers opened an investment account (SWIFT) with Dalex.

Some challenges have been experienced as well. Firstly, network availability continues to be an issue. The MNO partners provide the mobile wallets and the network infrastructure. According to ASI, even with Vodafone on board, there will still be some strategic areas that will not have adequate network, and these will be served later once the MNOs have put the infrastructure in place. As a result, the project will target farmers in areas with sufficient network coverage who will spread the message to

farmers that will be reached at a later stage when network infrastructure is in place. Secondly adoption of the product among farmers in the Northern region is negatively impacted by the low level of trust. According to ASI, this will be mitigated by more farmer sensitisation/training and initial payment of float to early adopting agents. These farmers and early adopters will be used as peer marketers since they will already have experienced the benefits of mobile money. The aim is therefore to use farmer to farmer education to penetrate the low trust levels. Thirdly in August 2017, the Bank of Ghana announced the collapse of Capital Bank, an SFIN partner, after failure to turnaround its negative capital adequacy position. This poses a risk to the implementation of SFIN if ASI is unable to engage another partner or Dalex does not have the capabilities to serve all the customers within the project. Lastly ASI is still trying to broker MNOs fees and negotiate with the MNOs to reduce the cost of farmers using the mobile money service. However, ASI has limited control of competition between MNOs. The outcome of these negotiation will have an impact on the level of uptake among farmers.

7.6.4 Understanding client needs

The FISFAP SFIN project is a scale-up of ASI's RimFin project with rice farmers selling to GADCO. The learnings and insights of the RimFin project were used to inform the SFIN scaling project. Additionally, recruited a consultant to conduct training needs assessment, baseline, and market surveys in Northern Ghana to establish a foundation of knowledge for the SFIN project. The survey results are used as an input when developing financial literacy training modules, training materials, and establishing the basis upon which project impact will be measured.

7.6.5 Business case

It is currently too early to tell whether this product is financially sustainable. It is important to keep in mind that this ASI product is different from standard mobile money since different, more concessional, revenues/prices are negotiated with the FBOs and MNOs. It is assumed that this can be tracked separately from traditional mobile money once ASI exits after SFIN. Previous ASI project experience suggests this product may prove to be financially sustainable. According to ASI, they previously implemented two similar projects in the rice and oil palm value chains. The first project was implemented about two years ago and initially benefitted 700 farmers. Since then the number increased to 2000 and farmers continue to receive payment. Based on this ASI is convinced that this project will prove the business case.

7.7 FIRST ALLIED SAVINGS AND LOANS

7.7.1 Overview of solution

The Northern, Volta, Upper West and Upper East regions are the most underserved areas in terms of financial access in Ghana. These are the only regions that remain below the national median for the ratio of number of financial access points per 10 000 inhabitants. Technology-enhanced alternative delivery channels present a major opportunity for the elimination of barriers to financial access. Banks, MFIs, MNOs, and other providers are now able use mobile phones and point-of-sale devices, along with networks of small-scale agents to offer basic financial services at greater convenience and lower cost than traditional brick-and-mortar infrastructure allows.

In line with this FASL seek to develop and promote 250 point-of-sale (POS) enabled non-exclusive bank agents including small-scale agribusinesses (agro-dealers, aggregators, processors, etc.) to offer financial products and services for farmers in the Brong-Ahafo region and Northern Ghana. The FASL agents are able to provide account opening (application then official account is finalised at a FASL branch), cash-in and cash-out, loan repayments, bill payment (electricity, water, DSTV, GOTV etc.), mobile money transfers, and E-zwich transactions (for social transfers), and initiation of loan applications.

7.7.2 Key metrics

The table below provides a summary of the grant and other key indicators:

Metric	Value
Total approved grant amount	USD 609 632
Total amount disbursed	USD 75 961
AGRA contribution as % of total cost	35%
Target number of agents	250
Actual number of agents	14
Target number of farmers	50 000
Number of farmers reached	358

7.7.3 Implementation successes and challenges

The project is still in its early stages of implementation but a number of achievements have been made. FASL has opened 14 new bank agencies, enrolled 358 new farmers and disbursed USD 220,712 worth of credit to 69 farmers and 39 value chain actors (co-ops, nucleus farmers or buyers). Strategic partnerships to expand outreach have also been built with the Department of agriculture in 6 districts as they better the communities and business area location; Women Integrated Development Organization (WIDO) who have a lot of VSLAs that FASL links to their products but this

is a gradual process; Esoko Tulaa with the aim to set-up agents and provide credit to farmers using the platform; and Root Capital which provides payment solutions for its clients.

The project has faced a number of implementation challenges to date:

- Ghana experienced a number of microfinance scams especially in the Brong-Ahafo and Northern regions. Due to the large number of people who lost their deposits, FASL faced challenges at the community entry stage as people are sceptical of who to trust.
- High levels of financial illiteracy amongst the target group meant a lot of effort was required to educate the target communities on savings, banking, etc.
- The growing number of agents has an impact on agent and liquidity management logistics. This is especially a challenge given the sparsely located communities which means agents have to travel long distances.
- Network availability is an issue which has affected POS and e-Zwich transactions;
- FASL had difficulty when on-boarding the agents in relation to convincing them of the product business case. This required a lot of follow up with agents in rural areas in comparison to urban areas.

In conversation with FASL's agents, they raised a number of challenges that they face (some of which are similar to those above), including: network connectivity affecting transactions; the frequency of agent visits being too low – which also poses a safety risk as they often sit with large sums of money; and the length of time to open accounts at the branch being too long.

7.7.4 Understanding client needs

To ensure that the Allied agency banking project reaches the targeted beneficiaries and meet their needs, FASL engaged a consultant to undertake a financial needs assessment and geo-mapping of strategic locations for agency banking operations in Brong-Ahafo and Northern Ghana. The Survey results will be critical in developing the financial literacy training modules, training materials and establishment of access points for financial services in project implementation areas.

7.7.5 Business case

It is still too early to determine whether FASL's agency banking product is financially sustainable, however some early signals can be identified. FASL has gone through an iterative process to set the incentive structure for agents.[32] According to the management team, this has proven to be financially sustainable. FASL conducted an analysis to see the impact of the agency banking product on the entire bank's operational income. At the time, it was measured at 4.71% and this is expected to have increased. The savings mobilized under agency banking also allows FASL to provide lending which is a form of additional revenue.

FASL expects to break even in a short period of time but this is dependent on retention of customers and deposits. Currently, only 37% of customers who open deposit accounts with FASL remain active

[32] Initially agents received 0.8% on the value of deposits. This incentivised them to focus on high deposit values from a low number of farmers. Subsequently FASL introduced compensation on a value of transaction 60 pesewas for every account that transacts within the month. For each withdrawal, customers are charged 1%, 0.6%, and 0.5% depending on the value. About 40-60% of the fee is split between agents and FASL. For every new account, agents receive GHS1 (but must be KYC compliant and show some activity before the commission is paid so that agents does not just register people to gain commission).

and the rest become dormant or infrequent users. For the product to be sustainable in the long run this retention rate will have to increase

7.8 POSITIVE INTERNATIONAL (PIL)

7.8.1 Overview of solution

Many farmers in Tanzania lack knowledge around the correct use of inputs and/or can only afford poor quality inputs, as inputs in rural areas tend to be more expensive than in urban areas. This is because they have to be transported large distances and agro-dealers place a substantial mark-up the goods they sell to cover their costs and also make a profit. As a result of the above, smallholder farmer productivity is reduced.

The objective of the PIL solution is to increase the productivity of smallholder farmers by providing good quality, affordable inputs, as well as agronomic advice around the best use of inputs. PIL, in partnership with the Grameen Foundation, has developed a Digital Input Financing Toolkit (DIFT) which is comprised of services that will increase the farmers' ability to afford and use the high quality agricultural inputs offered by PIL.

Agro-dealers are the main point of contact for this solution. Agro-dealers will register the farmers on the DIFT, who will receive a digital farm management plan (FMP) that prescribes a customized input package based on his/her production goals. The farmer will then commit to pay for their selected package of inputs over time via M-Pesa. Agro-dealers aggregate the demand from smallholder farmers and then receive the bulk inputs on credit from PIL for distribution to the farmers. The farmer will pay PIL directly via M-Pesa for the inputs received. Payment is done on a layaway scheme such that farmers make regular small payments based on the inputs usage schedule prescribed to them. Farmers will also receive precisely-timed SMSs containing instructions on the correct application of the inputs contained in his/her package. Lastly, the agro-dealer, will receive a fixed price commission from PIL which is equivalent to the profit amount they would have received had they bought the input from PIL and sold it on to farmers at a marked up price.

The solution is mutually beneficial for farmers, agro-dealers and PIL. Farmers are able to access cheaper inputs as well as agronomic advice, which will increase their productivity, and ultimately their incomes. Agro-dealers will receive fixed price commission and will not have to stock products using their own working capital or deal with cash on site, while PIL gathers data on the demand of smallholder farmers and will be able to capture a segment of the market they have been unable to reach as yet. They will also be able to reduce their outstanding balances with agro-dealers through the commissions paid to those agro-dealers.

7.8.2 Key metrics

Metric	Value
Total approved grant amount	USD 400 000
Total amount disbursed	USD 40 500
AGRA contribution as % of total cost	82%
Target number of farmers	15 000
Number of farmers reached	2 246

7.8.3 Implementation successes and challenges

The DIFT is still in the research/design phase and will be officially launched in October. However, during the research phase, PIL has already experienced some success. They have reached 2 246 farmers thus far and sold USD 25 000 worth of inputs via the new fixed price commission-based model.

With the help of AGRA, PIL launched the product concept in May 2017, presenting the idea to key stakeholders such as regulatory bodies, agro-dealers, financial institutions and farmers. PIL received positive feedback from this launch as well as advice around the proper selection and training of participating agro-dealers, who are key to making the product work. Other success drivers thus far include PIL's pre-existing network of 555 agro-dealers, who have an established pool of loyal customers, as well as the HCD process (through CGAP support), which has helped them develop a user-friendly digital platform that farmers want to use.

However, PIL has also experienced some challenges. The project was delayed at the start due to contracting processes which has reduced their time available for research and design as they have to launch in October to align with the planting season. Further to this, in terms of actual implementation, it was reported that many smallholder farmers in the PIL catchment areas do not visit the agro-dealers as they believe that they cannot afford inputs or that the inputs provided to them are fake. This is a challenge that PIL is hoping to address through farmer sensitisation and marketing.

7.8.4 Understanding client needs

A key component of the AGRA grant was earmarked for a client-centric research phase to inform the design of the DIFT. The Grameen Foundation led this component of the project and, through CGAP support, Dalberg was contracted to assist them in the process. The research was conducted using a HCD approach.

The purpose of this client-centric research process was to understand: farmers' willingness to enrol in a layaway scheme; the willingness of agro-dealers to use the proposed payment system; the preferences of farmers in terms of what they want from an FMP; the preferences of farmers with respect to how they would like to receive agronomic advice; and the extent to which mobile money is used among the target farmers.

This research has been used to refine the DIFT in line with the needs and preferences of the farmers before they officially launch the product in October.

7.8.5 Business case

PIL is a large for-profit organisation with an interest in capturing the smallholder farmer market. This initiative will not only contribute to increased profits for the organisation, but will expand their brand presence in Tanzania, as well as customer loyalty.

At proposal stage, PIL expected to break even in within two years (by 2019). It was reported that in order for the DIFT to be a sustainable business model, they would need to serve approximately 14 000 farmers per year. PIL noted while this target might not be achieved within the grant period, they are confident that they will reach this number beyond the AGRA support and continue to reach this number in future as they scale the operation.

PIL plans to reinvest the profits from this into franchise expansion.

7.9 ETC AGRO TRACTORS AND IMPLEMENTS LIMITED (EATIL)

7.9.1 Overview of solution

EATIL, the mechanisation division of Export Trading Group (ETG), is implementing a mechanisation model in Tanzania which allows smallholder farmers to access timely and quality mechanisation services through lead farmers, and which allows lead farmers to build a business case from mechanisation services. The solution is developed against the realisation that smallholder farmers have an unmet demand for mechanisation services and face challenges accessing mechanisation services because few tractors and implements are available and their land surface does not justify ownership of such equipment.

The model is that EATIL, through its field agronomists, identifies lead farmers and links them to financial institutions for asset finance to purchase a tractor. At the same time, the agronomists are creating a database of smallholder farmers who are then contacted by the EATIL call centre to ascertain their interest in hiring a tractor. The interested farmers will then be put in touch with the lead farmer closest to them. The idea is that the lead farmer will own the tractor, use it for his/her own farm and thereafter hire out the tractor to other smallholder farmers for use. The proposed ratio of lead farmer to smallholder farmers is 1:1500, but this will to a large extent depend on the proximity of smallholder farmers to the lead farmer and the smallholder farmers' willingness and ability to hire the tractor. Lead farmers are selected based on the following criteria: minimum landholding of 20 acres, bank statements and records for a least a year.

EATIL has signed a contract with Akiba Commercial Bank (ACB), CRDB Bank and Equity for Tanzania to provide asset financing to its lead farmers. Loans are extended to lead farmers on the basis of land (acreage), previous loan history, and land documents (from the village executive officer who certifies the use of land and the crops of the farmer). Depending on the arrangement between the farmer and the financial institution, lead farmers are required to provide a down payment of between 25% and 40% of the value of the tractor with the balance financed by the financial institution over a period of three years. Loan repayments are usually bi-annual. Hiring costs are negotiable between the smallholder farmers and the lead farmer but typically range between TSH 60,000-TSH 70,000 per acre for ploughing and TSH 60,000 per acre for harrowing. Smallholder farmers are not linked to financial institutions to access credit, and currently they will pay cash to hire the tractor. This has prompted EATIL to consider developing a digital payments platform to facilitate payments between farmers, and to start levying a fee for the matchmaking services and call centre.

EATIL provides capacity building to lead farmers on creating employment (hiring tractor operators/drivers) and how to use the machinery. Training is delivered through EATIL agronomists over a period of 3-4 days. In addition, agronomists provide extension services on maize and rice production, including efficient use of inputs.

7.9.2 Key metrics

Metric	Value
Total approved grant amount	USD 517 280

Total amount disbursed	USD 28 050
AGRA contribution as % of total cost	71%
Target number of farmers	26 lead farmers and 39 000 smallholder farmers
Number of farmers reached	2 lead farmers
Target number of female farmers	50%
Number of female farmers reached	1 of the 2 lead farmers is female.

7.9.3 Implementation successes and challenges

EATIL has been implementing its project for just over six months and has managed to link two lead farmers, one from Kilolo District and another from Iringa Rural District, to financial services to purchase tractors. Approximately 2 500 smallholder farmers have been registered on the EATIL database so far; however, hiring of the tractors has not yet commenced as cultivation season is from September to December.

EATIL is anticipating reaching 80-90% of its target farmers and has since revised its lead farmer-to-smallholder farmer ratio from 1:1500 to 1:1000. Some of the implementation challenges cited include the following:

- Network challenges and lack of smartphones among most smallholder farmers create challenges for rolling out sophisticated digital solutions like one that they are currently using for a similar programme in India. Any kind of digital platform they implement will have to be USSD code based.
- Interest rate changes and non-disbursement of approved loans by one of its partners, ACB.

7.9.4 Understanding client needs

EATIL is implementing the mechanisation project in recognition of the challenge that low access to mechanisation and widespread adoption of the hand hoe cultivation approach has limited smallholder farmers' ability to improve incomes and productivity. The argument is that mechanisation services will improve smallholder farmers' productivity and income as a result of increased acreage, higher yields per acre and access to markets. Further, EATIL recognised that most smallholder farmers will not be able to access financial services to purchase tractors and other mechanisation implements from formal financial institutions and may not have the production capacity to fully utilise tractors due to their small landholdings. As a result, EATIL took a decision to implement a mechanisation model that built on the needs of the smallholder farmers as well as their capacity by leveraging larger lead farmers.

7.9.5 Business case

EATIL's business is in selling tractors and other farming implements to farmers, and they are in this business regardless of the AGRA support. EATIL is therefore approaching the mechanisation project with purely business interests in mind. Currently EATIL is selling 60-70 tractor units per year and they are seeking to increase this to approximately 100 units per year by expanding beyond the commercial farming market in Tanzania, which this project will help them with. The current target they have set

for themselves is 26 units (one for each lead farmer) in 30 months; however, the project manager is confident that they will be able to reach more lead farmers in this time and therefore sell more units. According to the project manager, the business move will be sustainable, in terms of increasing business volumes and operating the match-making service (call centre), once they reach 20 units sold.

7.10 SELF WHOLESALE MICROFINANCE

7.10.1 Overview of solution

SELF Wholesale Microfinance (SELF) in partnership with Meru Community Bank (Meru), Mucoba Bank (Mucoba) and Mahanje SACCOS (Mahanje) are looking to implement a project focusing on improving income and agricultural productivity of smallholder farmers through the development of a (digital) income smoothening solution tailored to the needs of the smallholders during the farming cycle. Under the project Self will provide wholesale loans to Meru, MOCUBA and Mahanje for on-lending to smallholder farmer beneficiaries.

The solution is designed to smoothen smallholder farmers' incomes during the farming season through tranche disbursements of the input loan and a top up amount to sustain their household needs through the 'hunger season', which is the period just before harvesting. The tranche disbursement will assist farmers to invest loan funds into agricultural production instead of diverting it to other non-productive activities. The product will also assist farmers to stop selling their crops when ripening in the field at very low prices to meet household needs. Additionally, the banks will be linked to warehouses where the farmers can store their produce. This will prevent farmers from selling at low prices immediately after harvest as they will be able to store their produce and receive an agreed percentage of the floor price as an advance payment from the participating financial institutions based on the depository receipt.

The proposed solution will include partial integration of management information systems of SELF and the participating banks that will enable the loan facility to use branchless banking to reach more farmers, minimise operating costs and ultimately reduce default risks for SELF and its partner financial institutions by enhanced monitoring capacity.

7.10.2 Key metrics

Metric	Value
Total approved grant amount	USD 568 000
Total amount disbursed	USD 0
AGRA contribution as % of total cost	88%
Target number of farmers	15 000
Number of farmers reached	0
Target number of female farmers	30-45%
Number of female farmers reached	0

7.10.3 Implementation successes and challenges

SELF has not started implementing its project as they have only recently received their grant award letter at the time of the evaluation. As such, there were no implementation successes and challenges that were reported.

7.10.4 Understanding client needs

SELF and its implementing partners based the design of their solution on the understanding that smallholder farmers have an unmet financial need for non-agricultural household activities. This need was identified through SELF and its implementing partners' lending experiences where it was noted that smallholders often divert loans and sell farm produce immediately after harvest in order to finance their household needs, which makes them default on their loans.

7.10.5 Business case

At the time of the evaluation, SELF had not yet put together any business projections to establish the business case for the income smoothening product. This is because SELF is still in the process of developing certain aspects of the solution, as well as negotiating some of the terms and conditions. However, objectively speaking reducing loan diversions and increasing yields by farmers will reduce the probability of farmers defaulting on loan payments thus reducing the non-performing loans for SELF and it the partner financial institutions.

7.11 ACRE AFRICA

7.11.1 Overview of solution

With agriculture contributing 35.6%[33] to the Gross Domestic Product in Kenya, there is need for insurance products that are designed to address the challenges that farmers face when there are large production shocks, such as droughts, floods, diseases and poor-quality inputs. In response to this, ACRE Africa designed a seed replanting guarantee (RPG) product that aims to facilitate access to insurance products for smallholder farmers.

Through partnership with Seed Co Limited Kenya, ACRE Africa provides the RPG product using a mobile registration based pay-out platform. There is no insurance cost transferred to farmers as the cost is built into the price of the seeds. Farmers access this insurance offering by purchasing a packet of Duma 43 maize seed and an access card is inserted inside the seed packet. The RPG product is an insurance cover that enables smallholder farmers to receive cash reimbursement in the event that the seeds fail to germinate within 21 days of planting. The payment is index-based and is calculated based on the number of days without rainfall. The purpose of the reimbursement is to enable farmers to purchase additional seeds and replant affected farms or parts of the farm before the end of the planting season. Facilitating farmers to replant seeds reduces farmers' loss in terms of capital used to purchase the seeds but more importantly enables them to maximize farm production.

Additionally, ACRE Africa is seeking to increase access to finance for smallholder farmers by developing a credit option linked to insurance products. This will involve designing products that reduce the rate of non-performing loans caused by weather related and/or production risks. This product will reduce risk of lending to farmers by determining the correlation between weather patterns and farmer production, and will result in an increased appetite of financial institutions to lend to smallholder farmers.

7.11.2 Key metrics

Through the RPG product, ACRE Africa is targeting 1.5 million smallholder farmers in Kenya, Tanzania and Ghana by 2018.

The main key performance indicators (KPIs) of the RPG product are the number of registrations made by farmers which are traced through the USSD platform that farmers use to activate the insurance cover. Secondly, the outcomes and impact of the product are measured every season through RPG product promoters recruited and trained by the ACRE Africa sales team. The role of the promoters is to collect feedback and monitoring data through their interaction with farmers on the ground.

ACRE Africa, is unable to measure the gender reach of the insurance products as the farmer is registered on the platform with their phone number, which does not allow for gender differentiation of beneficiaries. Despite this, ACRE Africa conducts periodic surveys through the in-season call centre and, based on past surveys, the majority of the beneficiaries registered on the product platform are female farmers.

[33] World Bank Data, 2017. Agriculture value added (% of GDP) per country.

7.11.3 Implementation successes and challenges

Following inception in 2013, ACRE Africa conducted a GSMA review of the RPG product in 2014 to measure the piloting success of the product. The study revealed that there was poor uptake of product activation by farmers which was mainly due to farmers not being comfortable with frequency of messages sent once activated. ACRE Africa implemented suggestions made from the study in August-November 2015 such as adopting the use of a USSD system from an SMS based registration system and provision of airtime for mobile phone based product promotion resulting in a marginal increase in the uptake of product by 5%.

It is important to note that ACRE Africa is still in the concept discussion stage with AGRA. This partnership will be a build-up of the first phase of the project where MicroSave was engaged as a consultant to re-design the retail marketing strategy of the RPG product. The new model will be scaled to other regions in Kenya based on the recommended village champion model.

7.11.4 Understanding client needs

Despite adopting changes to the RPG product as per the GSMA study recommendations, ACRE Africa still experienced low product uptake and approached AGRA to assist with a grant to conduct an assessment focusing on identifying and developing a retail marketing strategy to scale the registration and uptake of the RPG product. With assistance from AGRA, MicroSave was contracted to conduct the consulting assignment to redesign the retail marketing strategy of the RPG product using a HCD approach. The purpose of this assessment was to assist ACRE Africa develop a sustainable business case for the RPG product in the retail market and to pilot the product using this strategy. The pilot has been running since January 2017 using a promoter-champion model where one promoter has several champions (advanced farmers) who assist farmers to pre-register the product at the point of purchase and register their packet of seeds at when they start planting.

The RPG is still in pilot phase and has trained a total of 3064 farmers, pre-registered 12 868 seed packages and registered only 988 farmers for the insurance cover. The low registration number was due to farmers not planting as a result of the drought in certain regions in Kenya. The success of the promoter retail strategy will be adopted by ACRE Africa and implementation will supported by a cost sharing grant with AGRA.

7.11.5 Business case

Given that the RPG product is still in its infancy stage, it is not possible to project whether it is financially sustainable. With support from AGRA, ACRE Africa intends to further develop and pilot the solution in Kenya and also plans to roll out in Tanzania and Ghana.

8 APPENDIX 2: STAKEHOLDERS CONSULTED

Organisation	Name	Title	Location
Program staff			
AGRA	Hedwig Siewertsen	FISFAP Team Leader	Nairobi
AGRA	John Wakiumu	Interim Head – Innovative Finance	Skype
AGRA	Anne Mbaabu	Head of Markets	Nairobi
AGRA	Reuben Gicheha	Associate Program Officer (Kenya), Branchless Banking	Nairobi
AGRA	Mutiga Wanjohi	Monitoring and Evaluation Officer, Innovative Finance	Nairobi
AGRA	Lilian Mwamdanga	Program Coordinator (Tanzania)	Dar Es Salaam
AGRA	Peter Shao	Program Officer, Agri Finance East and Southern Africa (Tanzania)	Dar Es Salaam
AGRA	Paa Kwesi Awuku Darko	Associate Program Officer (Ghana)	Accra
Mastercard Foundation	Anne Maftei, Ashley Onyango	FISFAP Program Managers	Nairobi
RAF Learning Lab	Jason Wendle	Director	Skype
RAF Learning Lab	Anne Murage	Learning Associate	Skype
Kenya			
Eastern Africa Farmers Federation (EAFF)	Norbert Tushiime	Project Manager	Nairobi
Mobile Decisioning Africa Limited (MODE)	Anthony Kanyoko	Business Development Manager	Nairobi
Umati Capital	Patrick Huang	Project Manager	Nairobi
Impact Leasing Limited (VAELL and TingA)	Paul Njeru	Project Manager	Skype
Acre Africa	Muthithi Kinyanjui	Business Development Manager	Nairobi
KCB	Clarisse Aduma Joy Musube	Project Manager M&E Manager, Mobigrow	Nairobi
PROFIT (AGRA)	Ronald Ajengo	Project Manager	Nairobi
FSD Kenya	Michael Mbaka	Senior Innovations Manager	Nairobi
MicroSave	George Muruka Oliver Barasa Justus Njeru	Principal Consultant, Private Sector Development Manager, Private Sector Development Manager, Private Sector Development	Nairobi
Blue Inventure	Sam Ndonga Jeff Temba Phillip Olan'g	Director Strategy & Business Development Director Operations & Service Delivery Senior Associate	Nairobi
Advantech	Joseph Waruingi Eric Ndung'u Muriithi	Managing Director Business Development Assistant	Nairobi
Ghana			

Organisation	Name	Title	Location
Agribusiness Systems International	Wisdom Alorwuse	Project Manager	Tamale
TIGO	Judith Bossman	MFS Payment Service Manager	Accra
Vodafone	Godwin Doagbodzie	Head of Key Accounts	Accra
Savanna Farmers Marketing Company	Abdulai Abdul-Rafiu	Managing Director	Tamale
Heritage Seeds Company Ltd			Tamale
Esoko Ltd. - Tulaa (m-commerce)	Esi Nana Sekyiama Billey Adamu Gordon Kotey	Country Manager M&E Manager Field Operations Manager	Accra
RMG (Esoko partner - input dealer network)	Eugene Amoako	Sales Manager, Irrigation Systems	Accra
First Allied Savings & Loans Limited	Joel Adusei Yaw Bonsu Augustine Amakye-Ansah	Agency Banking Manager Head of Legal Compliance Head of HR	Kumasi
Fingap - USAID	Victor Antwi	Deputy Chief of Party	Accra
Advans Bank	Barbara Odei Samuel Gyasi	Chief Operating Office Project Manager in Rural and Agricultural Finance	Accra
Tanzania			
SELF Microfinance Fund Limited	Faustine Mananga Gift Kudema	Director of Strategic Partnerships Director of Business Development	Dar Es Salaam
Meru Community Bank	Lazaro Andrew	Manager Credit and Projects	Skype
Mufindi Community Bank/MUCOBA Bank	Ben Mahenge Yoely Sangana	General Manager Credit Manager	Iringa
Positive International Limited	Victor Okeyo	Project Manager	Nairobi
Grameen Foundation	Raphael Wolf	Program Manager	Nairobi
ETC Agro Tractors and Implements Limited	Praveen Chandra	Project Manager	Iringa
FSDT	Mwombeki Baregu	Head of Agriculture and Rural Finance	Dar Es Salaam
Tanzania Agriculture Development Bank	Agustino Chacha Geoffrey Mtawa	Director of Credit and Business Management Business Development Manager	Dar Es Salaam
NMB	John Machunda Isaac Masusu	Relationship Manager Senior Manager	Dar Es Salaam
BRITEN	Josephine Kaiza	Managing director	Skype

9 APPENDIX 3: DOCUMENTS REVIEWED

Name of Document
Stakeholder information
FISFAP Stakeholder engagement list (Kenya and Tanzania)
Quarterly reports
FISFAP Quarterly project reports (Q1 2014- Q3 2017)
Project management
AGRA proposal to MasterCard Foundation
Signed MasterCard Foundation and AGRA contract for services
FISFAP Budget (Year 1-3)
Overview of FISFAP
Inception report: AGRA Assessment of the financial services delivery and demand landscape in Ghana, Kenya and Tanzania
Final report: AGRA Assessment of the financial services delivery and demand landscape in Ghana, Kenya and Tanzania
AGRA Strategy Theory of Change and Results Framework (2017)
FISFAP Strategy, approach and work plan – October 2015
FISFAP Monitoring, Evaluation and Learning Plan (2017)
FISFAP Results Framework
Indicator Performance Tracking Tables (IPTTs)
IPTTs (Q3 2017): EAFF, EATIL, Esoko, FASL, PIL, SFIN and Umati Capital
Partner selection
Request for concept notes Tanzania
Request for concept notes Ghana
Ghana classification criteria
Grant documentation
Grant memorandums: Umati Capital, Esoko, EAFF, ASI, EATIL, PIL, SELF, FASL, VAELL
Grant proposals: Umati Capital, Esoko, EAFF, ASI, EATIL, PIL, SELF, FASL, VAELL
KCB Mobi Grow business case and proof of concept
Learning Agenda Studies
Sustainability and uptake of ICT4Ag solutions
Review of AGRA's finance portfolio and value proposition of AGRA
Bridging the Gap: The role of data in deepening smallholder financing report and summary
Improved retail strategy for a seed replanting insurance scheme
Desk review report on SACCO operations in the Western, Nyanza and Rift Valley regions in Kenya
HCD research reports (Esoko, KCB, PIL)
Proposal for Umati Capital impact study
Proposal for Esoko impact study
Learning event reports
FISFAP partner learning event – December 2016
Uber in Mechanisation Services
RAF Learning Lab documents
RAFLL AGRA Partner notes
RAFLL Plan of support – AGRA 2016-2017
RAFLL AGRA MOU
RAFLL stakeholder archetype mapping - Proposal