



REPORT 2015



Schweizerische Eidgenossenschaft
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Swiss Agency for Development
and Cooperation SDC

State Secretariat for
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AGRI-FIN MOBILE PROGRAM PROFILE

Overall Goal

The overall goal is that smallholders increase and stabilise their incomes and manage their production cycle in a more effective way. This shall contribute to improved livelihoods and an increased food security at household and system levels. With well-designed products and services for dissemination, Agri-Fin Mobile has the mandate to share the knowledge of models developed, success and challenges during implementation.

Outcomes

1. Demand-driven bundled financial and rural advisory services via mobile phones are elaborated and made available.
2. Sustainable and scalable business models are established and work.
3. Smallholders have sustainable access and make accurate use of financial and rural advisory services.
4. Knowledge of models, services and products are captured and shared internationally for dissemination and replication.

Agri-Fin Mobile Bundle facilitates this Process

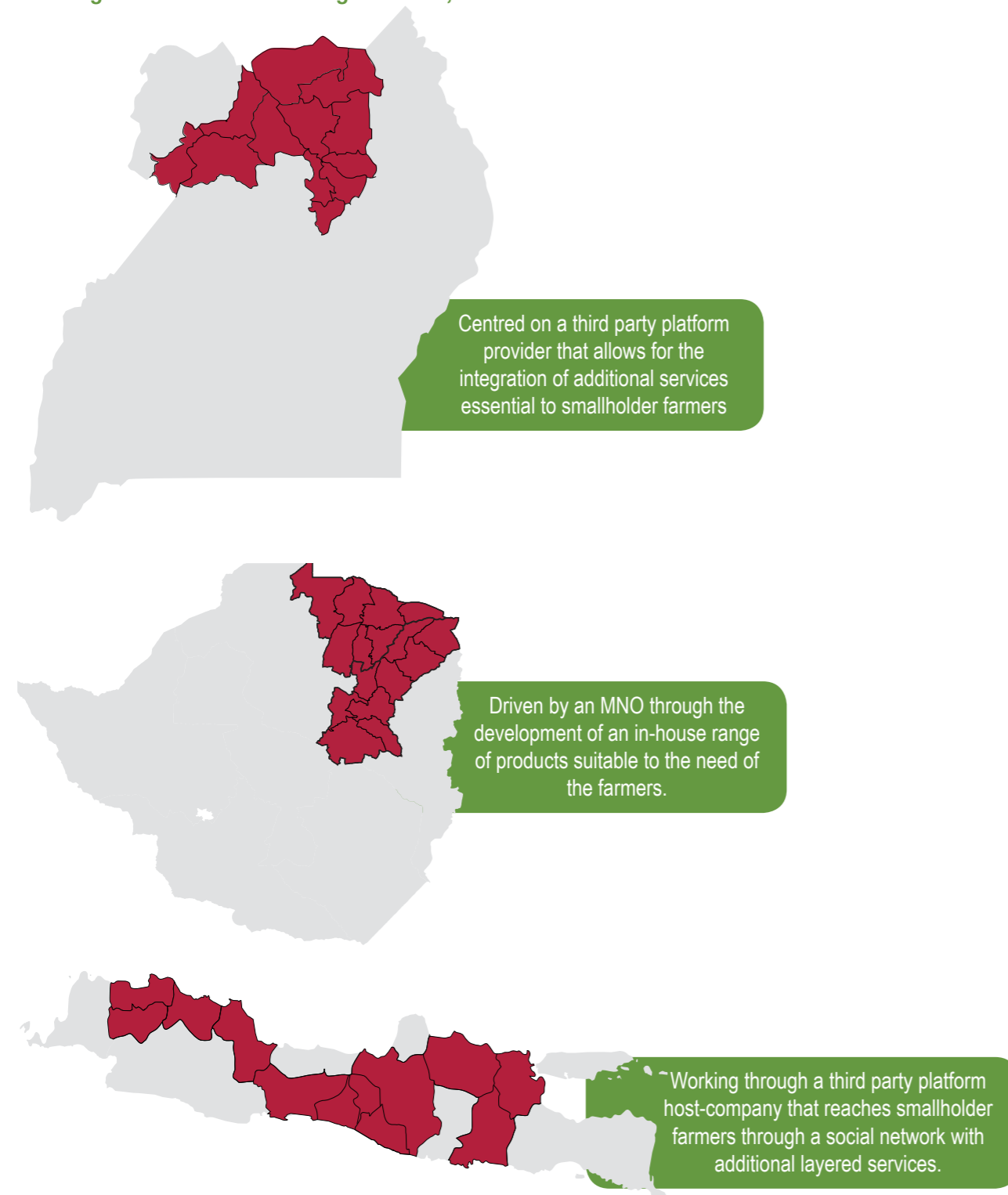


Taking Leadership in Agricultural Value Chains



WHERE WE OPERATE

Working in 3 countries reaching over 800,000 smallholder farmers.



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TABLE OF ACRONYMS

AECH	Africa Enterprise Challenge Fund
AGRITEX	Department of Research, Technical and Extension Services
AWM	AndaraLink Web Mobile
AWP	AndaraLink Web Portal
B2C	Business to Community
BOD	Board of Directors
BRI	Bank Rakyat Indonesia (a state owned bank)
FO	Farmer Organisation
Gapoktan	Gabungan Kelompok Tani/Farmer Group Union
KUR	Kredit Usaha Rakyat/People Business Loan
LISA	Layanan Informasi Desa/Village Information Service
MFI	Microfinance Institution
MNO	Mobile Network Operator
MOA	Ministry of Agriculture
MoU	Memorandum of Understanding
PISAgro	Partnership for Indonesia's Sustainable Agriculture
SHFs	Smallholder Farmers
SHU	Sisa Hasil Usaha/Annual Cooperative's profit shared to member
ToT	Training of Trainers
WG	Working Group
ZFU	Zimbabwe Farmers Union



EXECUTIVE SUMMARY

During the three years of implementation the Agri-Fin project has worked with over 15 different partners across Uganda, Zimbabwe and Indonesia. The goal has been to enable the cost effective and sustainable delivery of suites of financial and agricultural information services targeting smallholder farmers, which will enable them to increase productivity and income. The project has also worked with the many partners to establish sustainable and scalable business models. Over the course of the three years of implementation, the project has worked to ensure that smallholder farmers access and use the services provided to enable increases in production and incomes.

Smallholder farmers account for 60 percent of agriculture worldwide. In fact, one third of all people on Earth are fed by 500 million smallholder farmers who cultivate less than two hectares of land. In Asia and Africa, the dependence on small farmers is even greater, as they produce 80 percent of the food consumed. With the worldwide demand for food expected to increase by 70 percent by 2050, there is a clear need to improve the efficiency of food production and distribution. Mercy Corps is leveraging the power, convenience and prevalence of mobile phones to help smallholder farmers boost their harvests and incomes. Our project, Agri-Fin Mobile, directly connects farmers with a bundle of agricultural information and financial services through their mobile phones or on technology platforms. The project has done this by working with banks, mobile network operators, mobile application developers, agriculture research institutes and farmer organisations to sustainably deliver these services.

There has been significant evidence that access to formal financial services such as payments, savings, credit and insurance, positively impacts the lives of the poor. This evidence supports the longstanding convictions of many public and private sector actors who believe that financial inclusion is critical to inclusive and sustainable social and economic progress. Many of these same actors have also concluded that the magnitude of the challenge exceeds the capacity of any one country, sector, or industry to solve. In order to effect real change and create an ecosystem to foster inclusive growth, there needs to be broad collaboration between financial institutions, IT and telecommunications providers, retail and consumer industries, local and international development agencies, civil society organisations, regulators, policy-makers and academics. The question that the Agri-Fin Mobile project responds to is where to focus and how to orchestrate that coordination and provide

the collective suite of services and products across the three target countries, Uganda, Zimbabwe and Indonesia.

Over the past three years of implementation, the Agri-Fin Mobile project has achieved a number of results and outcomes. The project to date has over 800,000 smallholder farmers profiled and registered on the various technology platforms that have been supported by the program. Agri-Fin boasts over 5 million interactions between the various service providers and the smallholder farmers during the 3 years of the project, with the highest numbers being achieved in Indonesia. The Agri-Fin Mobile project has continuously built the capacity of the partners in the agribusiness and financial services sector to understand the needs of the smallholder farmers through enabling consultation with smallholder farmers. As a result of facilitating the interaction and ensuring that smallholder farmers are consulted and engaged the various providers of the financial and information services have been able to develop products and services that are appropriate and meet the demand. As a result of this support from the project, over 30,000 smallholder farmers have been able to access and use information and financial services to increase production and improve their incomes.

As part of the project's work to target vulnerable and poor smallholder farmers an assessment was conducted in the 3 countries to understand the needs and gaps of the poor and vulnerable smallholder farmers. The assessment identified women smallholder farmers as a target group that were being missed by the technology platforms and providers, but also that in fact women were the most receptive to the services being provided if they also were provided with basic skills and capacities. As a result, the project worked with over 40,000 women smallholder farmers across the program to build their basic capacities, primarily financial literacy, and provision of information services to ensure that the products were targeted at women. The uptake by women farmers has been overwhelmingly impressive because they, in turn, recruit other women farmers to join the platforms that have been presented to them. Indonesia took the initiative in targeting women farmers and providing information on pesticides, fertilisers, and seedlings. While recognising that women smallholder farmers want formal financial services for savings and credit, their limited access to cell phone technology, infrastructure, and vital social networks is a barrier to reaching their full productivity.

Over the course of the three years the project has been able to define the thinking around the concept of "bundling" financial and information services on technology platforms for smallholder farmers. The project over the second and third year defined the bundling process into four stages that would be incorporated into the business models that have been supported. The stages of the bundle were also disseminated across various technology platforms as follows:

1. Agricultural advisory services – through SMS, USSD
2. Financial advisory services – through SMS, USSD and training
3. Digital payments – through e-transfer, e-banking and mobile money
4. Linkage to financial institutions – credit facilitation

The project follows a 4 tier step that enables the farmer to fully achieve the bundle of services and increase yields and income. The four stages are provided in incremental order as the farmer benefits from these bundled services. The farmer receives agricultural advisory messages in Step 1 and while the project monitors, farmers start to improve farming habits and hence yields increase by about 20%. Once this income increases there is a need to be conscious of the funds as expense habits change for most farmers. As incomes increase step 2 then looks at the provision of financial literacy messages being sent and farmers are trained on financial management. The 3rd step kicks

in when farmers realise that they need to purchase or pay for more inputs and yet the distances to these facilities are really far. That being a problem for most farmers, the project introduces to the farmers the digital payments solution at stage 3, hence registration of mobile money, training on mobile usage and trust for the digital payments. Once the farmer starts using mobile money, transaction history is created which positions this farmer in the bankable bracket given his credit (transactional) history. Every bank looks at transaction history in order to provide credit to any low income farmer. The project will introduce the 4th step where the farmer is linked to a financial institution and using their transactional history can acquire a loan, if interested. Credit scoring will be done for a farmer to get a loan that fits within their spending patterns. This process details how the Agri-Fin Mobile bundled services are offered to each farmer. Farmers are willing to part with \$8 a year to ensure they get these services. These are 3 business models that are fostered by the 3 countries;

Within the concept of the bundling of services the project has supported three broad business models across the countries as follows:

ZIMBABWE: The project worked through an MNO led model with products and services developed for smallholder farmers being disseminated by the mobile network operator. The project built a partnership with the largest mobile network operator in Zimbabwe, Econet and supported the development of the "Eco Farmer" product. Eco Farmer provides the subscribers with agricultural information, crop insurance and credit



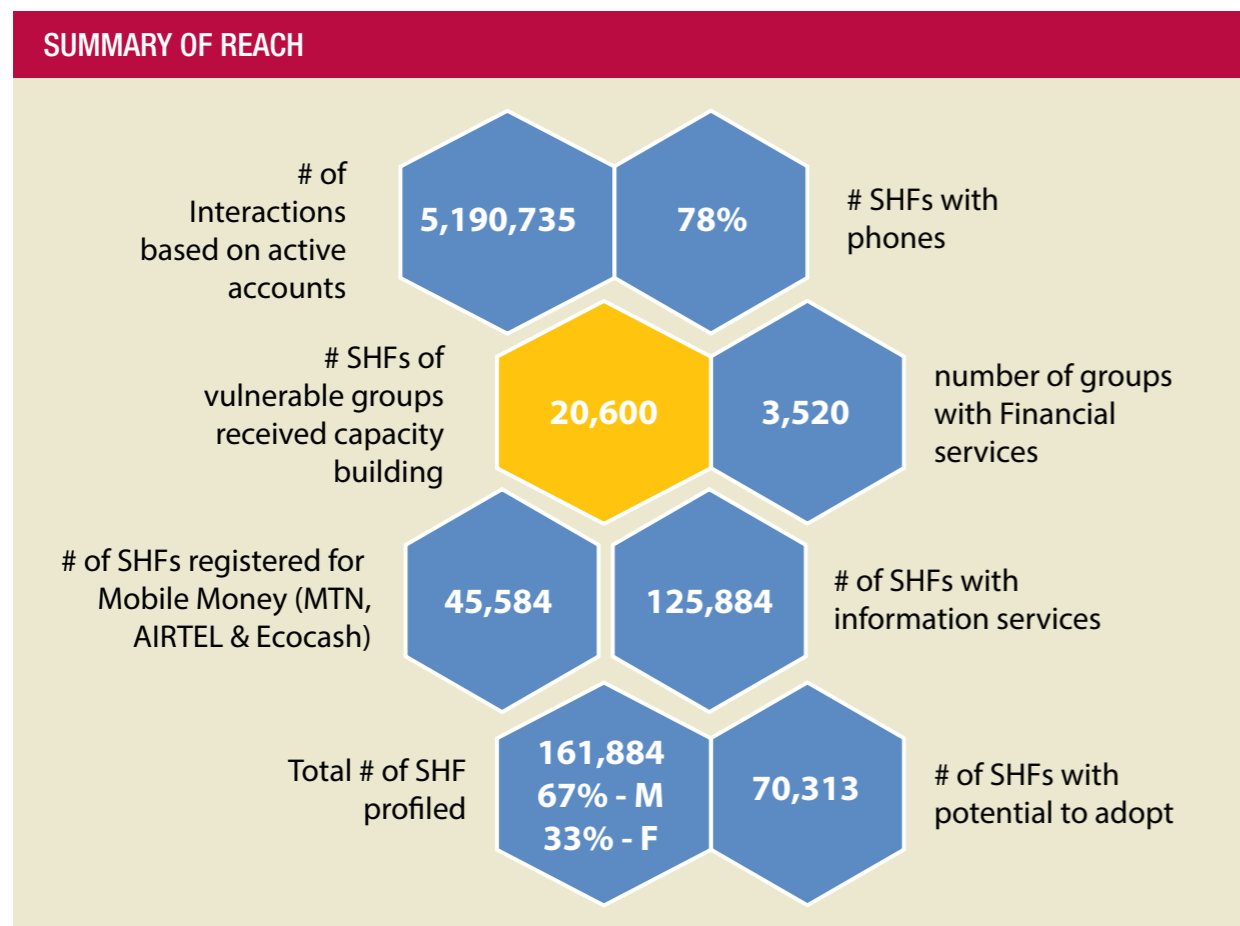
access. The project has also been working with Econet to bundle additional services to the Eco Farmer product including, micro-insurance and financial services.

INDONESIA: The project has supported the development of a bank led approach that is being implemented with Bank Andara. Over the course of the project Bank Andara promoted the use of the AndaraLink technology platform as a core service provider for agricultural payments for farmers. The AndaraLink has also been integrated with other service providers such as agricultural information provided through the LISA platform and powered by 8villages and access to credit through banks and other micro finance institutions.

UGANDA: The project has been working with a third party model whereby the project has worked with a variety of smaller technology companies and businesses that have information or financial services

that can be disseminated on technology platforms. One such provider has been Fit Uganda and their FARMIS platform. The FARMIS platform provides smallholder farmers with agricultural information and farm management tools on a technology platform. Additional financial literacy messages provided by the Bank of Uganda were combined with the FARMIS platform. Beyonic was supported to provide and scale up their digital payments platform working with agricultural companies and farmer cooperatives for making payments to smallholder farmers. The project has also been working with Ensibuuko, who have developed a technology platform called MOBIS that meets the needs of savings and credit cooperatives. MOBIS is designed to enable the digitalisation at the SACCO level of their financial record keeping and membership management thereby bringing more transparency and effective management of funds and speedy transactions while putting SACCOs at the same level as regulated banks.

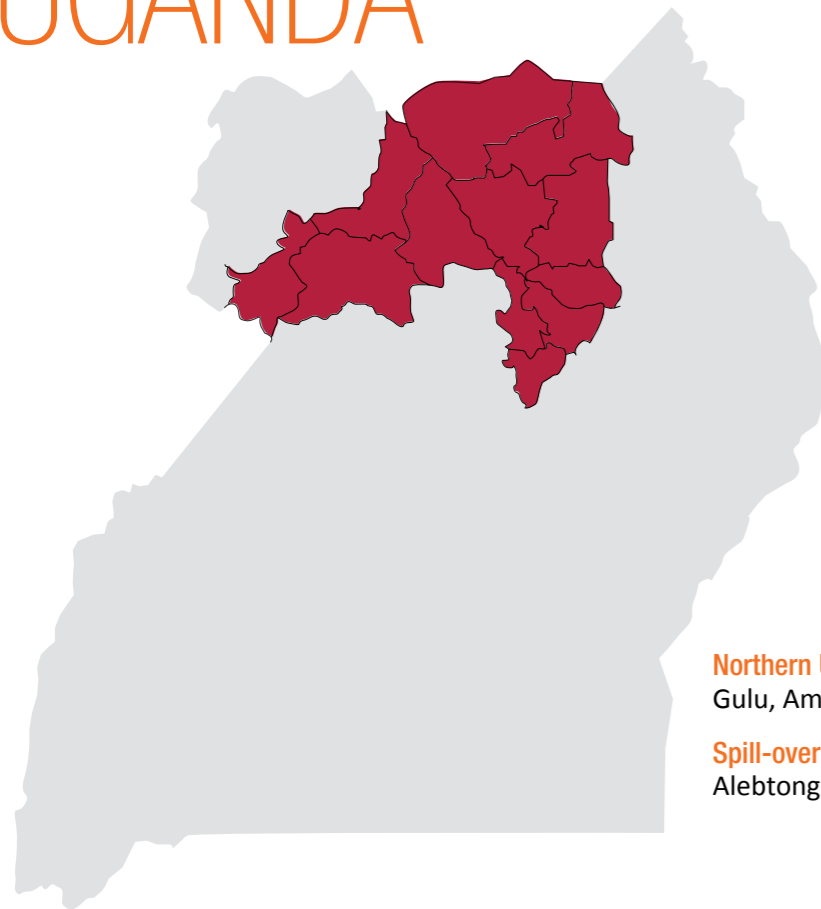
Program Reach!



THE ABOVE DIAGRAM SUMMARISES THE PROGRAM REACH ACROSS 3 COUNTRIES AT DIFFERENT LEVELS OF INDICATORS AS SHOWN.



UGANDA



Northern Uganda: Kitgum, Lamwo, Pader, Agago, Gulu, Amuru, Nwoya, Lira, Amolatar

Spill-over effects: West-Nile region: Nebbi and Alebtong

Partners

Private sector: FIT Uganda, Beyonic, Ensibuuko, AgriNet, Kitgum SACCO, Allied Sacco and others

Government: Bank of Uganda

MNO's: MTN, Airtel, Orange Telecom

47 Farmer cooperatives and associations in Northern Uganda

Program Outreach

Age group	Total	# of male farmers	# of female farmers
0-14	0	0	0
15- 24	6,153	105	6,153
25- 29	72,560	41,283	32,048
30- 59	20,044	10,806	9,238

“Over 93,000 smallholder farmers currently paying for services offered on the Agri-Fin Mobile platform.”

CASE STUDY



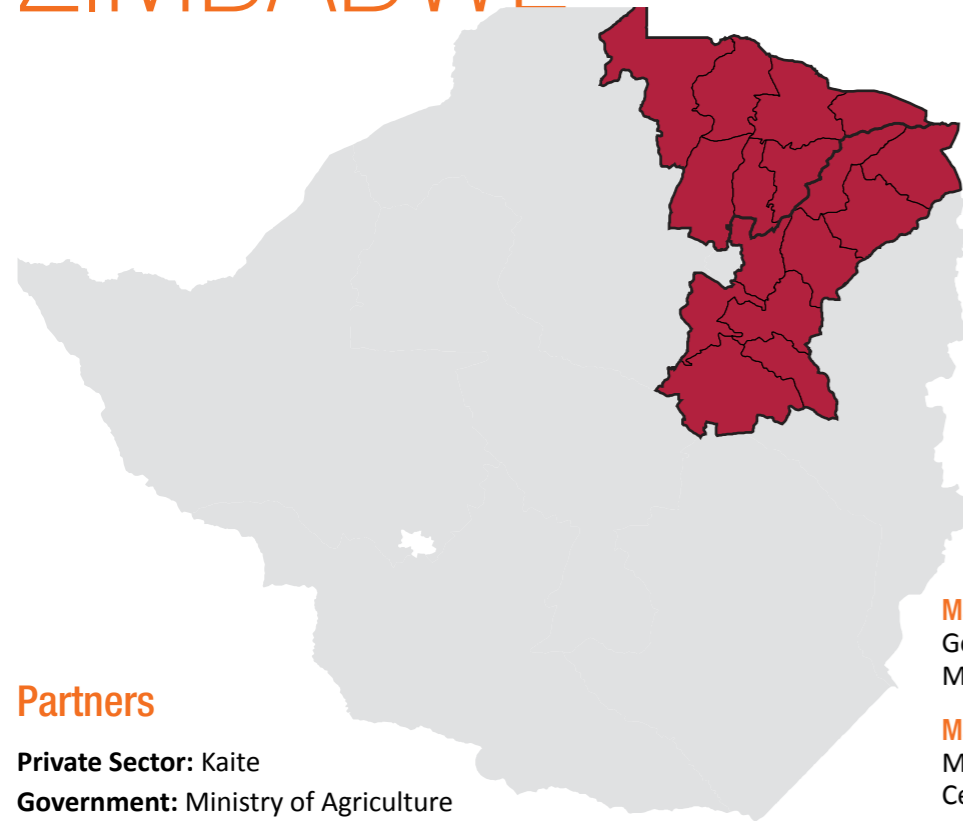
Through a partnership engagement process, a value proposition was developed with FIT Uganda to tailor its Farmer Management information system (FARMIS) to meet the needs of smallholder farmers. The project, together with Fit Uganda, also engaged the National Agricultural Research Organisation (NARO) and Ministry of Agriculture to provide technical input into the agricultural information services that are an integral part of FARMIS. The FARMIS was introduced to members of farmer cooperatives and associations in northern Uganda.

The FARMIS system (Farmer Record Management System) is an online application that provides farmers with tools to manage production data to improve planning. Features of the system include an internal accounting system which generates personal trial balances based on journal transactions and record keeping for all farm activities, from acquisition of seeds and farm inputs to harvest and sale of produce. The FARMIS business and revenue model is built around farmers paying subscriptions to access the services provided by FARMIS, with the farmer cooperatives or associations also paying an annual subscription.

FARMIS agents (known as production information agents) undertake the marketing and profiling of the farmers in the system. The profiling takes into account the farmers' bio data and the crop production information including up to three (3) crops for which they wish to receive information. Once profiled on the systems, the farmers will receive a month free of subscription, in which they receive all the agricultural tips. Once this month is over, they are required to either pay through mobile money an annual fee of \$8 or get disconnected at the end of their trial period. The FARMIS platform provides all information through mobile messaging, bringing the power of decision making to the palm of the farmer.

To date, the platform has been able to provide information services to 15,465 smallholder farmers with 950,703 transactions enabled through push and pull messages. The farmers comprise 56.8% male and 43.2% females and active farmers are 9,049. As a result of using FARMIS, farmers have been able to make better decisions in terms of how they plant their products and where they can sell their products.

ZIMBABWE



Mashonaland East: Marondera, Goromonzi, Mutoko, Murehwa, Mudzi, UMP, Seke & Chikomba

Mashonaland Central: Guruve, Mt Darwin, Bindura, Mazoe, Centenary, Rushinga, Shamva

Partners

Private Sector: Kaite

Government: Ministry of Agriculture

MNO's: Econet

Farmer Organisation: Zimbabwe Farmers Union



“Ecofarmer is helping me a lot because I am getting tips on farming which I am using on my farm. My extension officer is now in my home!”
Kutyaenda Maronda

CASE STUDY



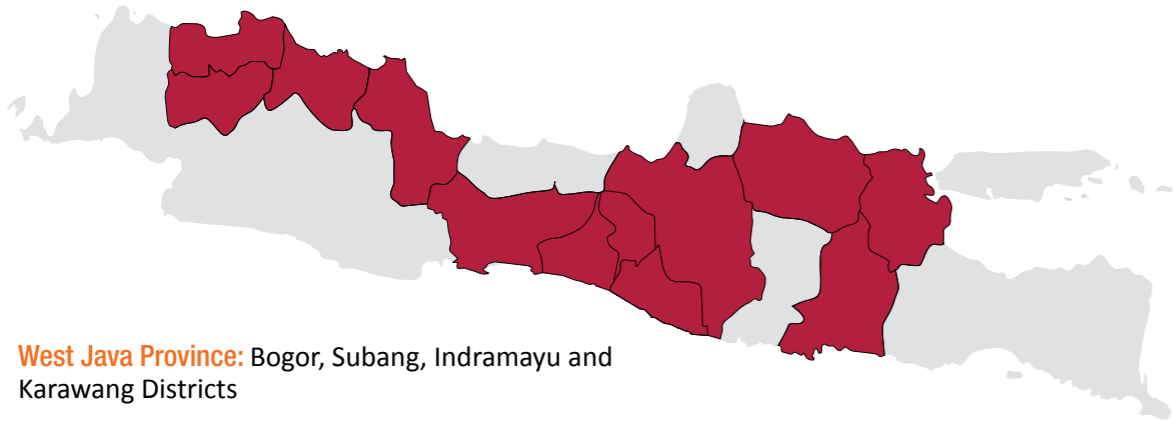
Kutyaenda Maronda is a 47 year old smallholder farmer with five children, three boys and two girls. She resides in Ward 22 Marova Village, Guruve district in Mashonaland Central province. She is married and her husband is a builder in Harare. Her husband visits the rural home regularly and together they make decisions about the farm. Although she did not manage to complete her secondary education due to financial challenges she supports the family through farming on her 4 hectare plot of land. During this last agriculture season she planted 2 hectares of maize, 1 acre of groundnuts and 2 acres soybeans. Although most farmers have realised poor yields due to the low rainfall last season, she was able to excel among her peers. Through her local farmers union, the Zimbabwe Farmers Union, she joined Ecofarmer in 2014. She has been receiving good agricultural practice messages from Ecofarmer since then.

She is member of the Good Farming Competition (GFC) group with a membership of 22. Smallholder farmers pay a joining fee of \$20 per person and additionally pay subscriptions of \$2 per month towards harvesting periods. Each season the members agree on the crops they will plant and they will compete against each other. These crops are usually maize, soya beans and sugar beans. The extension officers assist in providing agronomic advice during the season. At the end of the season the extension officer judges the crop and the

subscription and joining fees are used to purchase prizes for members that have done well in that agriculture season.

In May 2015 at a field day organised by her group she was placed fifth out of the twenty members in the group for her good maize and bean crop. She attributes her success to hard work and believes Ecofarmer played a key role in her recognition as a good farmer. She received agronomic tips during the season that guided her specifically on, at what stages to apply fertilizer, herbicides, and when to weed. These specifics assisted her to conduct her activities in a timely manner and her harvest also improved significantly because of these tips. She indicated that, as soon as she received the messages, she would immediately act on them as they were sent in line with her crop calendar. She insists that what differentiates herself from the rest of the group is that she follows the instructions on the Ecofarmer message fully. She believes that if her fellow farmers actioned the messages they would also excel and be recognised for their farming efforts. Additionally, Ecofarmer has encouraged her to be part of a group to ensure that she benefits from the group as a knowledge-sharing platform. She is now ready for the new 2015-2016 agriculture season and believes that with Ecofarmer she can continue to excel and be recognised more within her community for her hard work.

INDONESIA



West Java Province: Bogor, Subang, Indramayu and Karawang Districts

DI Yogyakarta Province: Bantul, Sleman, Kulonprogo, and Gunung Kidul Districts

East Java Province: Banyuwangi, Jombang, and Tulung
West Nusa Tenggara Province: Dompu and Bima Districts

Central Java Province: Semarang, Demak and Wonosobo Districts

Partners

National Level: Ministry of Agriculture, PISAgro, Financial Service Authority, Bank Andara, PT. Syngenta Indonesia, PT. 8villages Indonesia, Central Bank of Indonesia, National Team for Poverty Reduction Accelerating Vice President Office.

Regional Level: Agricultural Extension Offices in 10 Districts, Gajah Mada University, Rural Banks, Credit Union, Village Unit Cooperative, Farmer Group Union Cooperative, Male and Female Farmer Organisations.

Program Outreach

Age group	Total	# of male farmers	# of female farmers
0-14	172	77	95
15- 24	10,987	2,288	8,699
25- 59	93,346	52,218	41,128
69 and Older	993	446	547
Total all ages	105,498	55,029	50,469

“Around 40% of the 69,000 farmers registered on the LISA Platform are managing their production cycle in a more effective way, specifically in terms of the farmers’ capability and skill in using fertiliser, pesticide, fungicide and herbicide more effectively.”

CASE STUDY



Mrs Devina Yuliwanti, aged 30, wife to Mr Amrullah, received a bundled loan and agricultural information package from the microfinance project initiated by PISAgro in partnership with Bank Andara, Syngenta Indonesia, BPR Pesisir Akbar and the Agri-Fin Mobile project in Indonesia. Both Devina and her husband are members of the “Tani Mandiri” farmer group located in Nusa Jaya village, Manggelewa sub-district, Dompu District.

Devina and her husband own one hectare of land and the family has no savings. For the 2013 planting season, she and her husband had to borrow from informal sources (individuals and a production input kiosk) to prepare the land and purchase production inputs. The seeds they used were a Syngenta product, with a yield of dry corn grains of 8 tons/hectare. With the price of dry corn grains at Rp 2,700/kg (USD 0.2), in 2014, Devina earned sales proceeds of Rp 21.6 million (USD 1,548.7). After deducting the loan principal of Rp 8 million (USD 573.6) and interest for 6 months of Rp 1.92 million (USD 137.7), the income received by Devina and her husband from growing corn came to Rp 11.68 million (USD 837.4).

During the 2014 planting season, Devina’s husband received a loan of Rp 8 million (USD 573.6) from BPR Pesisir Akbar, of which Rp 5 million (USD 358.5) was used to purchase production inputs and Rp 3 million (USD 215.1) to pay labour costs (land preparation and harvesting). Although they had deposited money at the fertiliser seller’s kiosk to buy fertilizer, due to a scarcity of urea fertiliser (subsidised by the government) Devina was only able to buy enough fertiliser for one application (out of the three applications recommended in implementation of the ADB technology). Even though they only applied fertiliser once (compared to twice the previous year), by applying the ADB technology Devina and her husband still achieved an increase in dry corn grain yield of 9 tons per hectare. With the price of

dry corn grains at Rp2,300/kg (USD 0.16) in 2015 (lower than in the previous year), Devina received income from selling the corn crop of Rp 20,700,000 (USD 1,484.2). After deducting the loan principal of Rp 8 million (USD 573.6) and interest for six months of Rp 864,000(USD 61.9), the income received by Devina and her husband came to Rp 11.84 million (USD 848.9).

Despite the increased income, Devina and her husband have not achieved optimum results due to the unavailability of fertiliser and the lower price of corn as compared to the previous year. However, Devina has received many other benefits from her husband’s participation in the microfinance project facilitated by the Agri-Fin Mobile project as cited by herself below;

“I now have a savings account at BPR Pesisir and was happy to receive the financial literacy training which has enabled me manage our income for the family’s needs. I don’t have to go through a lot of trouble anymore and borrow from many different places to be able to plant, because the package of production inputs and cash for labour costs is available before planting starts. The availability of the AndaraLink mobile service at BPR Pesisir makes it easier for me to save without having to spend a lot pay on motorcycle taxi and travel a long distance to the bank office.”

When asked what she would like to see in the future, her response was:

“The microfinance project should be continued because it is very helpful for the corn farmers in our region. Many of my neighbours would like to join, after seeing the benefits I’ve received. Farmers should be facilitated with enough fertiliser in order to fulfil the ADB technology recommendations. In this way, corn farmers may enjoy a maximum increase in crop yield, as was experienced by other farmers who were able to do at least two applications of fertiliser.”

PROJECT ACHIEVEMENTS AND HIGHLIGHTS

OUTCOME 1: DEMAND-DRIVEN BUNDLED FINANCIAL AND RURAL ADVISORY SERVICES VIA MOBILE PHONES ARE ELABORATED AND MADE AVAILABLE

Agri-Fin Mobile worked with partners to build sustainable models, where farm and crop management tools and financial services were “bundled” in affordable, unified platforms on mobile phones like the LISA platform, FARMIS Platform and the EcoFarmer platform. The project targeted financial, Mobile Network Operators (MNO) and agricultural technical service partners who built mobile platforms or applications, or demonstrated interest in developing and investing in them. Agri-Fin Mobile then facilitated the development of partnerships, which incorporated a clear business model for the bundled services, and a strong value proposition for each partner, such as increased revenues, greater outreach or reduced risk.

Among the many examples of partnerships that were successful in Indonesia in December 2012, the Agri-Fin Mobile Project 8villages launched the Village Information Service (Layanan Informasi Desa, LISA) platform for farmers. Through the LISA platform, farmers can send questions via SMS relating to their farming activities, which will be answered by experts from a university. Farmers can also receive tips through SMS Blast and exchange information among group members through the group feature. Considering that the responses from experts are often not “real time” due to various reasons, 8villages then partnered with local agriculture extension workers to have them act as local experts. As of the end of Agri-Fin Mobile Project Phase 1, around 80,000 farmers were registered with the LISA Platform. Because the cost of SMS is steadily rising (compared with data packages) and more and more agriculture extension workers are using smartphones, in November 2013 the Agri-Fin Mobile Project partnered with PT, 8villages Indonesia and the School of Agriculture of Gadjah Mada University (UGM) to launch the Android-based PETANI application. Through the Petani application, local extension workers can upload questions they receive from farmers, and answers will be provided by experts from the UGM School of Agriculture, local extension workers, or farmers who use smartphones. From the launch up to the end of May 2015, around 2,096 users have registered with the Petani application. The results of monitoring show that although a majority of

farmers use basic phones, there are some farmers who have browser capability. With this feature, the LISA platform can send agricultural information to farmers in the form of a link, without the usual limit on number of characters (as is the case with SMS). In this way, as of the end of Agri-Fin Mobile Project Phase I, farmers and agricultural extension workers were able to access agricultural information through SMS, the Android application, and browser capability.

As well as providing agricultural information to farmers, through the LISA platform, farmers can also receive a bundle of agricultural information and financial advisory. In partnership with BRI (a state-owned bank with the largest number of branches/offices in Indonesia), PT 8villages facilitated financial education for BRI borrowers who receive rural credits through SMS Blast and a Q&A feature. In partnership with three district agricultural extension offices, Agri-Fin Mobile conducted financial literacy training for 10,000 female farmers. At the time of the training, the female farmers were also registered with the LISA platform so that they can receive bundled agricultural information and financial education material.

Key achievements from the Agri-fin Mobile project after 3 years

- Through the mobile phone, smallholder farmers across the three countries have accessed a collection of financial and information services in the communities where we work. Smallholder farmers have come to realize the role and value of mobile technology in accessing a diversity of services. The three platforms (Ecofarmer in Zimbabwe, FARMIS in Uganda and the LISA platform in Indonesia) have been instrumental in extending valuable services that have positively impacted farming practices of smallholder farmers.
- Access to agricultural and market information disseminated through the FARMIS, LISA and EcoFarmer platforms has improved their decision-making particularly when choosing lucrative markets to sell their produce. The weather information has guided farmers on timely ploughing, planting

and weeding. Additionally, the financial literacy messages have contributed to improved financial management in these farming households.

- Enabling mobile payments has contributed to the increased efficiency and improved cost effectiveness of farming activities particularly for farmers who received payments from buyers “off-takers” of their produce. In Indonesia, the project enabled smallholder farmers to access financial services (savings, loans, bill payment and cash remittance) at the farmers’ location performed by MFI field personnel who are trusted by the farmers. Farmers can now transact within the farm fields with agents visiting them in their locations to pay off their loans or even acquire the loans. Loan vetting and disbursements have been made easier due to the digitalisation of the payment systems. This is evident in Indonesia where a tablet syncs with the bank system to make and clear payments of farmers with assistance of the agents at the farmers’ location.

OUTCOME 2: SUSTAINABLE AND SCALABLE BUSINESS MODELS ARE ESTABLISHED AND WORK

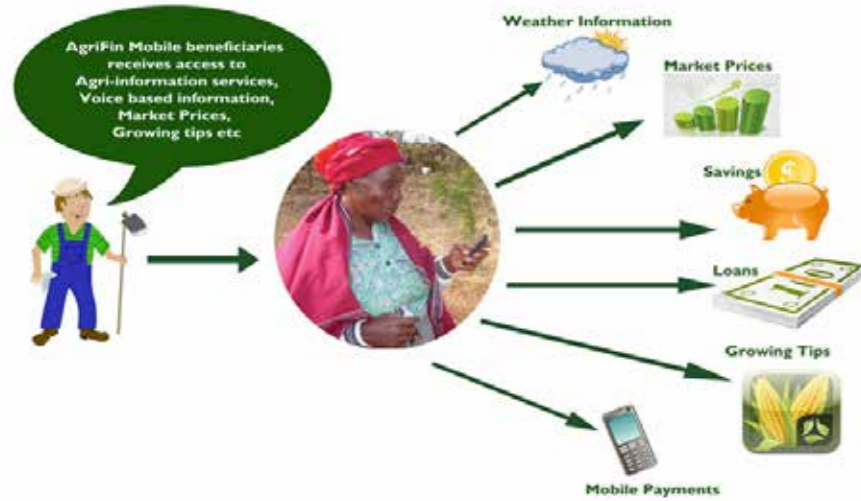
Over the three years of the project, the teams in the three countries have worked to identify providers of financial and information services that are appropriate for smallholder farmers. The project under outcome 1 worked with these providers to refine the content of the services or products. Outcome 2 worked with these providers to support the development of the business models to enable the products and services to reach the smallholder farmers, to understand the revenue streams and to build out economically viable business models. As part of the process and the learning over the course of the three years, the project supported individual providers to develop business models that were comprehensive and stand alone, and also supported business models that brought together different providers to create a bundle of services. As part of this process the project defined what was meant by bundling and then supported the evolution of the business models while understanding the challenges of reaching smallholder farmers and defining revenue streams.

Under outcome 2 the project has defined “Bundling” as follows:

A bundled service is defined as the addition of one or more services/products to a pre-existing service/product for the same farmer. If products and services are not delivered in a coordinated manner, the pathways and communication loops can become very confusing and chaotic. For the Agri-Fin project, the benefit of delivering bundled services is that they can be provided for the smallholder farmers in a coordinated and intentional manner, sequenced appropriately and in a way which is most useful for the intended recipient. Maintaining availability of products and a reliable supply chain is essential to ensuring that target groups have access to the bundled services when and where it is convenient for them. Agri-Fin Mobile’s first critical objective addressed this need: to ensure smallholder farmers have sustainable access and make accurate use of financial and rural advisory services. The Agri-Fin Mobile project’s technical approach for supply focused on strengthening public and private product supply networks in order to increase the quality of bundled service products. The project also ensured that these services were available to the target population (male, female and young smallholder farmers).

Bundling services ensures that farmers are exposed to a collective suite of products. However, it is critical to note that the essential services required by the farmers are offered first to ensure attraction and adoption of usage of the service. This will ensure that farmers are attracted to the bundle and effectively get access to other services that they may not have deemed relevant or priority within the bundle. The key feedback from the farmers indicated they appreciate the agricultural information when bundled with financial services or access to credit. The availability of a payment system service (including deposit and loan payment solutions) leads to an increase in the farmers’ income that is saved in the form of savings in rural banks without having to travel to the location of the rural bank. This proves that using the incremental provision of services to farmers is of great importance as one complements the other.

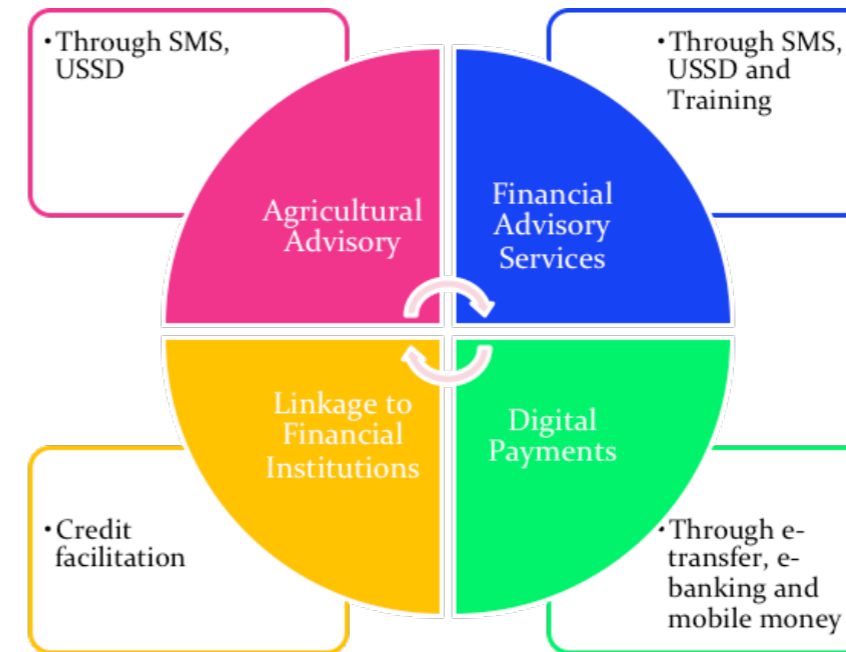
THE BUNDLE



1. Agricultural advisory services: When farmers register for the service, their interests are taken into account and they receive topical agricultural SMS messages on specific crops and market information to help them make better decisions at the farm level. The aim of this program is to help increase yield and therefore increase income.
2. Financial information / financial literacy: With increased income, the farmers will move to the next stage of receiving financial information to increase their financial literacy. In Uganda and Zimbabwe this information is based on 8 core messages developed by the Bank of Uganda/GIZ.
3. Digital payments – E-payments (e-transfers and mobile money): With increased income and financial literacy, the next stage aims to reduce transactional charges through encouraging farmers to use mobile payments or digital money transfers (e-transfers). This in turn forms a transactional history for the farmers, which has typically been the biggest obstacle for access to credit in the banking environment.
4. Linkages to financial services: Once a credit / transactional history is created its quite easy for the farmer to be linked to any financial institution. With mobile money transfers and e-transfers, farmers can now go to banks to receive a credit while using their transactional statement as guarantee to show they are credit worthy.



STAGES OF THE BUNDLE



the 8villages platform is also used by farmers to submit questions relating to BRI's savings and loan products, and giving feedback regarding BRI's services. Initially, the project is targeted to reach 5,000 micro and small enterprises, of which around 1,343 are farmers.

Model of bundled service initiated and facilitated by Agri-Fin Mobile Project

In the meeting of the PISAgro Agri-

finance WG held in April 2014, the CEO of Syngenta Indonesia made a presentation on the need for micro-financing for corn farmers and the options for cooperation with grain traders. In July 2014, an assessment was conducted on the demand for financial services needed by corn farmers. The results were presented in the quarterly meeting of the PISAgro Corn WG on 17 July 2014. After getting the green light from Bank Andara and Syngenta Indonesia, the Agri-Fin Project facilitated the development of the product in partnership with the Syngenta Indonesia team, Bank Andara's head office, Bank Andara's Denpasar branch, and rural banks. Once the scheme and draft specifications of the product were available, through a joint activity with PISAgro, the draft and scheme were publicised to key farmers, officers of farmer groups, and agricultural extension workers to receive feedback. From the feedback that was received, in mid-August a MoU was signed with 19 parties, including 10 heads of farmer groups and four grain traders. Subsequently, the bundled services were received by 198 corn farmers with land area totalling 385 hectares and loans totalling Rp 3.1 billion (USD 248,000). When the corn farmers signed their loan agreements with the rural bank, they received bundled services, which consisted of a package of production inputs (through vouchers), cash to pay labour costs, direct assistance from Syngenta's agronomists, a blast of information on ADB technology via SMS, financial literacy for farmers and their wives, and payment system services using AndaraLink Mobile.

Through this progression, the program registered astronomical success rates on reach and interactions of farmers. The program to date has over 180,000 farmers profiled and registered on the 3 country platforms. Agri-Fin boasts of over 5,000,000 million interactions over the 3 years of program, with the highest numbers coming from Indonesia and Zimbabwe.

Special focus on Bundling models from Indonesia

During the three years of implementation of the Agri-Fin Mobile Project in Indonesia, there have been two models of bundled services received by farmers: one facilitated by 8villages as a project partner, and one initiated and facilitated directly by the Agri-Fin Mobile Project.

Model of bundled services facilitated by 8villages

In March 2014, 8villages signed a cooperation agreement with Bank Rakyat Indonesia (BRI), a state-owned bank that has products including rural savings and rural credit for micro and small enterprises, as well as farmers. In this cooperation, each micro or small enterprise (including farmers) that opens a rural savings account or receives a rural loan at the Bantul branch office (a district in the Province of Yogyakarta) will receive financial literacy which is delivered using the 8villages platform. The content of financial literacy comes from BRI. As well as conveying financial literacy,

AGRI-FIN MOBILE PROJECT BUSINESS MODEL

The business models adopted were all considering the 4 bundling stages described in the diagram above, but not in chronological order. Indonesia started with 'Agricultural Advisory' then moved to 'Linkages to Financial Institutions'. Zimbabwe also started with 'Agriculture advisory' and then progressed on to 'Linkages to financial Institutions'. Uganda started with Agricultural Advisory services too, however using a different approach.

The four stages all have different providers; stage one and two can use content providers, but stage two embodies training, whereas stage three works with banks and mobile network operators and stage four operates purely with banks. The countries selected a provider that would serve, taking into account all the stages in order to ensure that the farmers are getting bundled services or a collection of services that complement their way of life for better yields.

Zimbabwe: The program is working through an MNO led model with products and services developed for smallholder farmers all in one suit. The Ecofarmer suite of services has been developed to allow for subscribed farmers to receive agricultural information, weather data, market prices and access to weather index insurance. Partnerships with other providers are thought on value propositions and business models such as market linkages, savings and loans service providers. Agri-Fin is looking at expanding this service platform further, through the MNO to provide financial literacy messages over the same channel, provide digital payments and facilitate credit scoring of farmers to access credit.

Uganda: A third party model is being amplified, where a host provides agricultural content and dissemination through the FIT Uganda's FARMIS platform. Bank of Uganda/GIZ provided valuable input on financial literacy, which was disseminated through the FARMIS platform. With almost 30,000 Smallholder farmers registered and receiving information, Beyonic facilitated digital payments by encouraging farmers to use mobile money to pay for their FARMIS subscription on the FARMIS, and to receive payments for their produce as well. Ensibuuko was the 4th partner in the Uganda model that created access to credit at the lowest level in digital form. With the MOBIS platform developed, Agri-Fin/Ensibuuko have signed MoUs with the Ministry of Trade to work with all the SACCOs in Uganda in order to push for SACCO information management and encourage the usage of the mobile wallet. This wallet will reduce the transactional costs and distances travelled by farmers to access credit or banking facilities. To date, eight SACCOs across Uganda

are participating and about 15,000 farmers have been trained and have sampled the mobile wallet.

Indonesia: A bank-led approach is being implemented with the Bank AndaraLink with a core service of agricultural payments for farmers and integrated with other service providers such as agricultural information provided through the LISA platform and powered by 8 Villages and access to credit through Bank Andara in partnership with a Rural Bank and others. The Indonesia model fronted credit facilitation as a means to provide services to farmers that had signed on to receive the loan. Financial literacy was given to them and they were encouraged to start e-payments by paying for their utility bills through bank Andara. They received Agricultural advisory messages through Syngenta platform, who partnered with bank Andara.

Case Study of the Bank-led Business Model: Indonesia

1. Agricultural advisory services for farmers

Provider: 8villages

Services: Agricultural information through SMS or the PETANI Application (Android based)

Fees: Farmers and agricultural extension workers can receive tips, send questions to experts, and access information by purchasing pulsa (mobile phone usage units) or data packages provided by the MNOs that partner with 8villages. In other words, the farmers or agricultural extension workers do not pay directly to 8villages, but instead pay by buying pulsa (to maintain a minimum balance) for basic phones or data packages for Android phones.

8villages obtains its funding through grants and partnership with MNOs to conduct joint programs and promotional activities, and service contracts from agribusiness companies, private companies or programs carried out by International Donor Agencies to use the 8villages platform.

2. Digital payment services for farmers

Provider: Bank Andara, which provides the AndaraLink mobile platform, and microfinance institutions as the delivery channel. The microfinance institutions invest in the purpose of smartphones/tablets and Bluetooth printers.

Services: Bill payments, credit top-up, domestic cash remittance, and savings deposit and loan repayment collections, all performed using smartphones/tablets and Bluetooth printers brought by the MFIs' field personnel to the farmers' locations.

Fees:

- For bill payment, top-up, and domestic cash remittance services, the farmers pay a fee set by the service providers (Bank Andara's partner) plus an administration fee. The microfinance institutions will receive a commission, which is taken from the administration fee.
- For savings deposit and loan repayment services, the farmers do not pay fees, but the microfinance institutions pay a monthly maintenance fee to Bank Andara based on the number of smartphones/tablets they use. The more smartphones/tablets that are used, the lower the monthly maintenance fee per unit becomes.

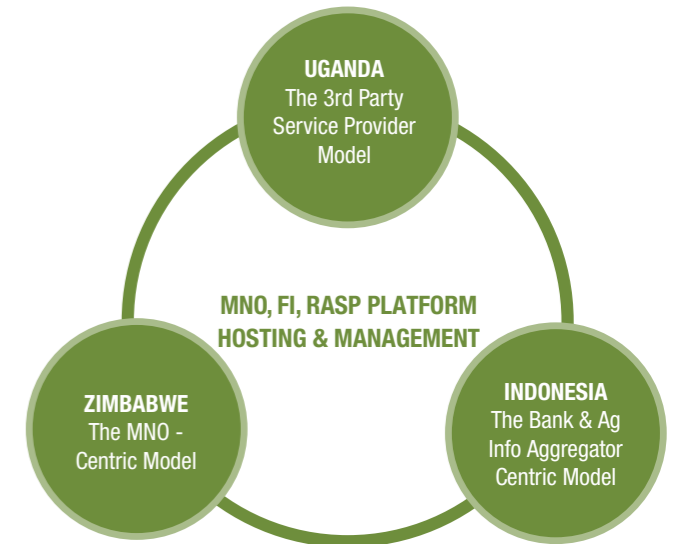
3. Access to credit / Financial services

Providers: Bank Andara and Syngenta Indonesia.

Services: Bank Andara provides loans to farmers, which are channelled through rural banks (in an executing scheme), and Syngenta Indonesia provides "Start It Right" (ADB) technology and information through agronomists and SMS Blasts.

Fees: Credit agreements are entered between the farmers and the rural banks. The credit received by the farmers is Rp 8 million/HA (USD 650/HA), consisting of Rp 5 million (USD 400) in the form of costs of production inputs and Rp 3 million (USD 250) in the form of cash to pay labour costs. The farmers pay a bank commission, notary fees for the collateral commitment, and monthly interest, calculated at a flat rate of 1.8% per month over six months. Syngenta Indonesia provides three agronomists to assist the farmers and conduct monitoring (at 30, 60, and 90 days after planting) and provides information on implementation of ADB technology through SMS Blasts. Information services and the assistance given to farmers during this process is free

COUNTRY BUSINESS MODELS



Key achievements

As a result of supporting the various business models across the three countries the project achieved the following results:

Key Indicators	Current Month	Last Month
# Active SHFs	155,308	131,533
# Profiled SHFs	222,015	184,046
# SHF receiving Bundled services	5,128	3,463
# SHFs with financial services (lit & info)	1,541	1,758
# SHF total interactions	4,925,852	4,601,358
#Messages sent monthly	2,436,502	4,385,737

OUTCOME 3: SMALLHOLDERS HAVE SUSTAINABLE ACCESS AND MAKE ACCURATE USE OF FINANCIAL AND RURAL ADVISORY SERVICES

Over the three years of the project, smallholder farmers have been able to access and use financial and rural advisory services through the support to the three rural advisory service providers' platforms, Ecofarmer in Zimbabwe, LISA in Indonesia and FARMIS in Uganda. In addition to rural advisory services and agricultural information, the project worked to provide financial literacy messages and training to smallholder farmers.

In Indonesia the financial literacy services were disseminated via the LISA platform. Financial services were disseminated to the smallholder farmers via the partners including bank Andara in Indonesia and their AndaraLink platform, while also working with microfinance institutions.

Uganda worked with the Bank of Uganda financial literacy messages (see: www.simplifymoney.co.ug) to convert the core messages to text messages and then the messages were disseminated via the Ecofarmer and FARMIS platform to the smallholder farmers. In Uganda the project worked with BEYONIC to enable farmers' access to financial services and specifically digital payments, while also supporting the establishment and scaling up of mobile money agents in rural areas.

In Zimbabwe the project worked with Econet to support the roll out of the Ecofarmer information service to the smallholder farmers. This was complemented with work to enable the same subscribers to access mobile money via Ecocash.

In all three countries, substantial work was done to understand how the various technology platforms and products targeting smallholder farmers could be complemented with a level of human interaction. The project learnt that to really ensure that smallholder farmers not only access, but actually use the services, there is a need for constant support, mentoring and when required training. This has to be achieved by building into the models a level of human interaction at farm level. In Zimbabwe this was achieved through the establishment of "Brand Ambassadors" for Ecofarmer. The brand ambassadors support the smallholder farmers who receive Ecofarmer messages with interpretation, as well as act as sales agents for Econet mobile products. In Uganda, the FARMIS platform was primarily provided to farmer cooperatives and associations and so the leaders of these cooperatives and associations provided the human interface for helping farmers interpret and use the FARMIS services.

Key Results

- Through the mobile phone, approximately 400,000 smallholder farmers have accessed a collection of financial and information services, and have come to realise the role and value of mobile technology in accessing these services. The three platforms (Ecofarmer in Zimbabwe; FARMIS in Uganda; and LISA in Indonesia) have been instrumental in extending valuable agricultural extension services that have positively impacted farming practices of smallholder farmers.
- Access to agricultural and market information disseminated through these platforms has

improved smallholder farmers income, maximising decision-making. Weather information has guided farmers on timely ploughing, planting and weeding. Financial literacy messages have improved financial management. To date 200,000 farmers have been profiled to receive these messages.

- Mobile payments have contributed to increase efficiency and cost-effectiveness of farming activities particularly for farmers who received payments from buyers for their produce. Accessing financial services at the farmers' location and performed by MFI field personnel who are trusted by the farmers is convenient and cost effective. With continuous payments to smallholder farmers using the payment platforms, approximately USD 30,000 has gone through the platform.

The project has given smallholder farmers the opportunity to access bundled financial and information services. These services have begun to improve their farming activities and income and to positively impact their livelihoods. A total of 2,000 smallholder farmers have received the complete bundled services of financial and rural advisory services in Indonesia, under a pilot with PISAgro and key private sector partners Syngenta and the rural banks.

CASE STUDY

“The Female Farmer Group (KWT) was already holding routine meetings every month. Because they felt that the LISA platform would be useful, in the last session of the training all the participants who were users of Telkomsel and Indosat SIM cards immediately registered to join LISA and formed a group. As follow-up, the KWT members agreed to practice family financial record keeping. To make it easier to record family finances, the Head of the KWT prepared books containing forms for financial recording and passed them out to all the members who participated in the training. The members will record all their family financial transactions for a month and the records have to be brought to the next month's KWT meeting for collective evaluation.”

Ms. Dian Hardianti, female extension worker Leuwiliang sub-district Agriculture Extension Office.

OUTCOME 4: KNOWLEDGE OF MODELS, SERVICES AND PRODUCTS ARE CAPTURED AND SHARED INTERNATIONALLY FOR DISSEMINATION AND REPLICATION

The Agri-Fin project, over the course of the three years, has worked at a variety of levels to capture the various business models that have been supported, the products and services that have been developed by the project partners, and relevant information and results have been shared and disseminated. The project has held an annual meeting where all staff working on the project have come together to meet and discuss the project. The annual meetings have looked at each country's work in terms of the four outcomes, lessons learnt, challenges and opportunities. The annual meetings were also complemented with field visit to meet with partners and understand first-hand the products, models and how smallholder farmers were accessing and using the services. The project has also produced two Ebooks (see links below) that have captured critical learnings over the project and were widely disseminated via the internet, social media and through the project's network. At the end of the second year, a review of the project was conducted by an external reviewer, the report (see annex 4) generated some key lessons learnt and recommendations that have been incorporated into the design of the second phase of the project. The project team also captured results and impact on a monthly basis and this information was disseminated as a dashboard to key stakeholders both within and outside Mercy Corps. The project also has established a website (www.agriofinmobile.org), Facebook, LinkedIn and Twitter accounts to enable the dissemination of project learnings and documents.

Agri-Fin has also participated in a vast number of global, regional and country level workshops, fora and meetings to present the project, our models and learnings. The following section details these many efforts and working partnerships:

- The project continuously shares its experience in various fora including the GSMA, GFRAS, CGAP and Mobile world congress.
- The Uganda Financial literacy model that was developed with the Central Bank of Uganda was shared with the Zimbabwe program is now being replicated in Zimbabwe with a partnership with EcoNet. The same model of mobile financial literacy has been adopted for its Ecofarmer clients.

- The model of mobile agricultural information for farmers that was launched by 8villages in Indonesia in December 2012 was then replicated and launched for farmers in Myanmar in 2014. Nevertheless, the platform developed by 8villages in Myanmar is already Android-based, because Android handsets are already available at a price affordable by farmers. In November 2014, the farmer application (Android based) was also launched in Indonesia with a primary target of agricultural extension personnel, because as time goes on more and more agricultural extension personnel are using Android phones.

Global representation of Agri-Fin Mobile

- FIN4Ag Agriculture Digital Finance Conference

Agri-Fin Mobile program was invited to present and moderate 2 sessions of the three Agri digital finance panels at the Fin4Ag and Plug N Play Session featured the FIT Uganda process of Farmer profiling.

Links:

<http://www.fin4ag.org/en/session/s45-economic-landscape-of-agricultural-digital-finance.html>

<http://www.fin4ag.org/en/session/s47-agricultural-digital-finance-more-than-payments.html>

<https://www.youtube.com/watch?v=vlu-1xQ6VHU>

- GFRAS 5th GFRAS Annual Meeting RAS Policies – Evidence and Practice, Buenos Aires, Argentina

Agri-Fin Mobile was allowed representation at the GFRAS meeting in Argentina. A joint paper of Agri-Fin Mobile and GFRAS was written prior to the conference called **Note 3: Mobile Based Bundled Services**. The Agri-Fin "Good Practice" notes.

Links:

<http://www.betterextension.org/>

<http://www.g-fras.org/en/ggp-home.html>

<http://www.g-fras.org/images/activities/better-extension/ggp-notes/GFRAS-GGPNote3-Mobile-financial-services.pdf>

Partnerships and achievements

The integration of the Agri-Fin Model into the Extension Ministry of Agriculture in Nigeria, as well as AFAAS' interest in integrating Mercy Corps into its platform as one of its stakeholders and selling the Agri-Fin model as a sustainable initiative for agricultural extension in Africa.

- GSMA mobile conference, Mobile Innovation: The Future is here.

GSMA mobile series summit had several topics of interest to allow for different categories of participants attending parts that would fit within their portfolio these where, LTE: Creating New Opportunities for Innovation, Mobile Innovation: The Future is Here and Connected Living – Connecting Opportunities. Agri-Fin attended the mobile innovations sessions and we had the chance to sit on a side event panel discussing mobile improvements in Africa focusing on integration of new ICT initiatives in Agriculture. This panel will then present at the South Africa GSMA conference in November where Agri-Fin will still be presented at the GSMA mAgri events.

Partnerships and achievements

Equity Group Foundation (of the Equity Bank in Africa) are interested in discussing mAgri Tools for a medium size farm project that they are launching.

The Agri-Fin Mobile Case study will be published on the GSMA website and a link shall be communicated at a later time. This will showcase some of the mAgri initiatives that have been successful across different countries.

- Dahlberg Think-tank Design lab - Nairobi on Agri-Financial ecosystem in East Africa.

Direct-to-Farmer Finance: Investing in innovation that can help direct-to-farmer finance providers' scale up to more quickly and effectively meet the vast global demand for smallholder finance. A team of 20 experts were invited and Agri-Fin had the privilege to showcase the models being used in the 3 countries and how we are implementing the combined products, agriculture and finance.

- Financial literacy sharing working group:

Stock-taking of the financial literacy strategy for Uganda, with FURA being present, a key organisation with operations in western Uganda undertaking financial literacy with funding from MasterCard foundation.

- AIDF 2nd Food Security Summit:

Asia 2014 in Jakarta on October 9th. Agri-Fin Indonesia delivered a presentation on the Agri-Fin Mobile project focusing on agricultural finance work in the AIDF 2nd Food Security Summit. http://www.aidforum.org/docs/foodsecurity2014/agriculture/Andi_Ikhwan_Agricultural_Financing_FOODSecuritySummit_Asia%202014_FINAL.pdf

- Presentation in the PISAgro Corn WG meetings on July 17, 2014 and October 7, 2014 at Ministry of Agriculture Office.

The first presentation was a description of the assessment results of corn farmer demand for loan, while the second presentation was a description of the loan scheme for the corn farmer in Dompu and Bima Districts, West Nusa Tenggara Province.

- Presentation in the Communication Science and Community Development Department, Faculty of Human Ecology, Bogor Agricultural Institute Workshop on September 12, 2014.
- Agri-Fin Mobile's work in the Financial Service Authority Workshop on Branchless Banking on June 24, 2014.
- PISAgro member on the plenary Building of a New Spirit of Partnership at the Grow Asia Agriculture Forum in Manila, which was organized by the World Economic Forum East Asia on May 21, 2014.
- Citi FT Financial Education Summit , Kuala Lumpur, November, 2014.

Citi Foundation has granted approval for funding of USD 150,000 for the FEED Mobile program Phase II, which will conduct financial and business literacy for farmers and small business owners through classroom and digital channels.

- Agri-Fin Financing Agriculture Forum 2015, World Bank, Istanbul, May 2015.

This meeting afforded the opportunity to discuss with the Head of Agribusiness at Rabo Development the possibility of replicating the business model from Dompu/Bima with Rabo Bank's network in Indonesia. Currently Rabo Development is helping in formulating a new Food and Agribusiness strategy for Rabo Bank Indonesia and sees the possibility of partnering in the implementation of the Agri-Fin Mobile Program Phase II. As a follow-up, during the presence of the Head of Agribusiness, Rabo Development in Jakarta, on 13 July 2015 the Indonesia Agri-Fin Mobile Program Coordinator was invited to present the value chains financing model to the Rabo Bank Indonesia team. The Head of Rabo Development will also facilitate the possible cooperation between Mercy Corps and Rabobank Foundation in Indonesia.

- Presented the Agri-Fin Mobile Project in the OJK (Financial Service Authority) and TNP2K (the National Team for the Acceleration of Poverty Reduction, Vice President Office) Workshop, Jakarta, June 2014.

- Presented the Agri-Finance Model for Corn Farmers in Dompu and Bima Districts in the PISAgro Agri-Finance WG Meeting, Jakarta, January 2015.

- Presented the Agri-Fin Mobile Project in the Bank Indonesia Transformation Office Electrification and Financial Inclusion Program, Jakarta, March 2015.

- Africa Enterprise Challenge Fund (AECF) programs in the Financial Sector in Zimbabwe.

- Food Security and Poverty Eradication Cluster meeting on the 10th Sept 2014 in Mudzi. A presentation by EcoFarmer on bundled financial services for farmers.

- Agriculture Coordination and Information Forum (ACIF) meeting which was held on Thursday June 26 at the Celebration Centre.

The focus of the meeting was on market access and financial inclusion of smallholder farmers.

- Regional Rural and Agricultural Finance Thematic Conference Theme: "Regional Experiences on Knowledge Sharing and Networking in Rural And Agricultural Financing", on 9-14 June 2015, Harare, Zimbabwe. Presented the work with CGAP on emerging innovations in digital finance.

Partnerships

Over the 3 years the Agri-Fin Mobile program has been approached by several partners who have found the success achieved by the project very exciting and well aligned with what they would like to offer. In other instances, donors have leveraged what the project has accomplished to build studies like the one on Human-centred design (HCD) in Zimbabwe and several others that are listed below. Some key partnerships formed by the project are listed below (for a more comprehensive summary see appendix II);

1. Agri-Fin with CGAP and EcoNet on Human-centred Design in Zimbabwe
2. Agri-Fin Mobile with Syngenta and Bank Andara in Indonesia - Provision of credit for corn farmers in Dompu and Bima districts
3. 8Villages expansion to 80,000 farmers in Indonesia
4. Agri-Fin with Beyonic in Uganda; Agri value chain payments through Mobile
5. Agri-Fin with Agritex in Zimbabwe on training financial literacy
6. Agri-Fin with Basic transfer in Uganda on provision of enterprise funds to farmers

7. Agri-Fin with Enisibuuko in Uganda facilitation of a Management information system to SACCOs in Northern Uganda.

Publications

The Agri-Fin project has published several case studies, papers, blogs and very many interesting papers on the achievements over the past 3 years, those that stand out are detailed below with links to the articles that were written.

1. Balancing Act: <http://www.balancingact-africa.com/news/en/issue-no-722/top-story/uganda-s-beyonic-loo/en#sthash.ZGHRw0Al.uxf>

2. GFRAS: <http://www.betterextension.org/> or <http://www.g-fras.org/en/ggp-home.html>

“The Agri-Fin services have been characterised by the timely dissemination of information e.g. the relaying of planting recommendations during the planting season and crop post-harvest management information during harvesting time. There has been a noted improvement in access to technical production information and this has improved the timeliness of production activities.”



GOING FORWARD TO PHASE II

Phase II and how the project will evolve and build off the results and partnerships from Phase I

The Agri-Fin Mobile project envisions to;

Conduct three product customisation and research studies to determine how best to improve on the products and business models currently being offered in each country. Significant research will be conducted across the project to refine and scale farmer products and services already developed. This research will examine how to improve the content delivered in the selected crops by making it more interactive with farm management planning, more tailored to farmer segments within each value chain, and by pushing more actionable agricultural and financial information to farmers such as updated market prices and targeted planning notifications according to cropping calendars, savings tips, investments or budgeting.

Develop first stage product bundling in new market areas: Phase II will facilitate the development of new bundled services in expanded geographic areas of each target country. The project will maintain focus on the crops selected under Phase I, but expand geographically to reach more farmers. This expansion will build on lessons learned during Phase I (see appendix) on product development, marketing, and partner selection for new markets. We will select geographic areas that are in line with current Mercy Corps programming wherever possible to allow for economies of scale. Where this is not feasible, we will coordinate with SDC to select regions complementary to other ongoing initiatives to ensure complementarity and opportunities for leverage.

Develop second and third stage product bundles: Increasing the number of products available to client farmers not only increases the range of services, but also raises the value for the overall bundles. A success of Phase I was to roll out at least one core product/service in each of the countries. The project will build on this by working with partners to introduce new product offerings to smallholder farmers. Phase II will focus on deepening the availability and uptake of mobile financial services, beginning with digital payments, and moving rapidly into insurance and credit facilities. This activity will be closely linked with our colleagues working on the MasterCard Foundation funded Agri-Fin Accelerate project, which is currently starting up in Kenya, Tanzania, and Zambia and is primarily focused on financial services.

Develop partnerships with commercial banks and MNOs to improve provision of financial services through mobile money. A range of agent networks both with banks, MNOs and agricultural buyers with reach to smallholder farmers have proven to have an impact in delivering services and products in phase I. In Phase II, the project will look to support the expansion of the various agents' networks with the key partners. In Zimbabwe, the project will work with EcoNet to continue to build out the EcoNet Brand Ambassadors network. The Brand Ambassadors will continue to provide the human touch essential for the uptake of the services. The project will therefore continue to build capacity of this network of agents for increased uptake of the Ecofarmer suite of services. In Indonesia, the Financial Service Authority has launched the branch-less banking regulation and just approved four commercial banks to appoint the bank agents. Therefore, in Indonesia the project will improve the capacity of farmer organisations to become eligible to act as bank agents to provide the commercial bank products and services for SHFs. In Uganda, the project will support the agricultural buyers to build out their buyer agents and look to embed with the buyers' agents' mobile solutions for rural advisory and financial services. These agents will be aligned with the products to increase interest and value proposition for the various actors to create a win-win situation across the value chain.

“The Agri-Fin Mobile program over the past 3 years has shared resources across the 3 countries and the replication of the financial literacy training and messages developed by bank of Uganda / GIZ from Uganda to Zimbabwe has been a major program success and has benefited both companies that are holding the realm of information in Uganda (FIT Uganda) and Zimbabwe (ECONET).”



To improve on the delivery of services, Radio and Interactive Voice Response (IVR) will be considered as options for the purely illiterate environments in order to enable SHFs to access and use the services offered. IVR is a unique approach to receive voice messages through a short code or USSD menu. This interface will be developed specifically for financial literacy and explored. Mercy Corps' experience in the Philippines indicates that IVR's was 70% more effective compared to other channels of reaching beneficiaries, especially due to the literacy level of the communities the project operates in within Africa.

Improving access and uptake of products and services: The project will embrace marketing strategies that have been successful in Phase I of the project; especially peer to peer marketing, agent to farmer marketing and other digital outlets. These marketing strategies increase social cohesion and trust among farmers and increases interdependence of services.

The agent networks (MNO, bank and third party) have proven to be an effective and critical channel for the establishment of service providers and creating the human interface between SHFs and the providers of the rural advisory and financial services. In phase II the project will work with the partners to continue

to expand and build out their agent networks, while also providing training to the agents to equip them with skills to interact with SHFs and provide support as SHFs interact with the technology platforms and services. One of the key learning's of phase I was that despite the reach of technology, farmers still require human interface to build their trust and increase their confidence in using the services provided.

In phase I the project identified that the introduction of more feedback mechanisms for SHF who use the services provided will increase access and accurate use of services. A social networking component was supported in Indonesia on the LISA platform that allowed SHFs to seek advice and information from other SHFs as well as the experts on the platform. In Uganda a call centre component was established with a toll free number provided to fully registered and paid farmers to enable them to access further information in case they had questions. Both of these approaches will be replicated and expanded during Phase II. Furthermore, we will establish an iterative voice response (IVR) messaging system to increase interaction and monitoring of action to messages by SHF on the relevant platforms.

Financial literacy will be an integral part of all the services provided by the platforms. Phase II will continue to build out the initial activities that were initiated with the Central Bank of Uganda and the GIZ project for Uganda and Zimbabwe. The financial literacy messages have been developed and in phase II work will continue to support the dissemination of these messages within the technology platforms and business models supported. In Indonesia phase II will continue with the financial literacy activities conducted Phase I which include, further integration of the messages into the LISA platform and expansion of financial literacy messaging within the bank led model. In Uganda and Zimbabwe the project will work with the all the MNO partners (EcoNet, MTN and Airtel) to enable financial literacy messages to be included as a value added service to their subscribers. Farmers receiving agricultural information, receiving digital payments, or accessing credit through their mobile phones will now receive financial literacy information as an embedded service.

A public website including all project-generated learnings and publications will continue to be supported, see: www.agrifinmobile.org

Regular publication of blogs, case studies, success stories and reference notes will be continued. This will be supported by ongoing engagement in social media platforms.

Working groups and forums are another platform where the project will seek membership and present or blog on the different aspects of the project, the key working groups being GSMA and GFRAS, as well as the World Bank Agri-Fin Mobile site.

Presentation of papers and project findings at key conferences including the GSMA's Mobile World Congress, ICT4D/ICT4Ag annual conference, Citi-NIE Financial Literacy Conference and the Global Forum for Rural Advisory annual meeting.

Rapid-iteration impact assessments to determine the viability of project innovations will be carried out. These trials will be published so that the lessons learnt on either success or failure of an approach are well articulated and our peers can learn from the Agri-Fin Mobile project.

Ongoing, regular information sharing and coordination with the MasterCard Foundation supported Agri-Fin Accelerate Project. This sister projects represents an important learning opportunity by comparing different approaches, sharing resources (see Digital Farmer Capability Lab), and benefiting from each other's research and learning.



Over 4.9 million
smallholder farmers currently receiving
information through the Agri-Fin Mobile
program.



LESSONS LEARNT

Like all projects, the Agri-Fin Mobile program has experienced successes and challenges as well. This program has provided Mercy Corps an opportunity to grow as an innovator in Agriculture using technology based solutions and hopes to scale up leveraging these lessons learnt.

Human interface still critical in promoting services through technology

The notion that once you deploy technology, it should be able to quickly drive mass uptake by directly empowering farmers has been overly held. However, it has been observed that farmers are still sceptical about some of the technologies, especially on services from the mobile phones. One of the key bottlenecks to the adoption of technology is trust issues that farmers develop. Education levels among the farmers are also still a challenge and this requires routinely interfacing to boost their knowledge on how to access and to gain confidence of the product. The existence of a human interface is also very important to guarantee availability of content that is specific and relevant to the farmers based on their region and value chain. Defining a human interface while promoting a service will be critical for adoption, it will require the services of the more skilled early adopters within the communities that are willing to act as points of reference to the farmers. One farmer in Uganda was quoted saying: "We need someone within our community that we can rely on for support if we have any issue with the service"- clearly a social capital that rural populations have depended on over time.

Understanding the last mile distribution and influence to the farmers

Often times, like any other product or service, understanding the last mile distribution is critical in developing channels for reach to smallholder farmers. Each context of course provides its own structure and should be clearly used. These channels for last mile distribution can act as a strong and localized marketing and reference point; they can also be used to drive adoption and uptake of services. In Uganda the input/output agents are emerging as the power tool in reaching farmers while in Zimbabwe the "Brand Ambassadors" are strongly becoming the drivers for services under Eco Farmer and any other embedded service. Empowering and branding this category with the right information is critical in delivering the right information. In Indonesia, the model is a little upstream with a lead farmer being consulted by the rest of the

farmers and acts as the agent within the community.

Pricing models and structures should be tested in the actual pilots

Sometimes businesses are very enthusiastic about prices that can create break-even for their products without necessarily testing them out with the final consumers. It is critical that during the piloting of the products and services, testing out different pricing models and structures are critical in gaining acceptance of the product for commercial purposes. Some of the factors for this are that farming, being a seasonal activity in most of the regions, has a seasonal trend that greatly affects any pricing and payment structure for a service or product.

Private sector alignment and financial commitment should be tagged to a payment by milestone basis

Dealing with private actors is sometimes a challenging process and needs to be well managed. Balancing the priorities and the goals set are sometimes more complex as private sector actors try to survive as well in a very competitive world. To make this process smoother, it is critical to align the interest and value proposition/shared value of the private actor to the service. Management of the private partners with financial commitment and payments by milestones has proven to be simple management on streamlining expectations and targets, this approach reinforces Mercy Corps own principle in playing a "facilitator" role in catalysing the private sector.

Feedback loops are critical in the product development

These should be provided for throughout the product cycle. Environments that these products are launched in are very dynamic and as such require constant market intelligence in understanding the farmer interest and providing that specific adjustment to the product or service. This process as well increases on the demand for the product/service.

Not pushing farmers to change their SIM cards

It is vital to let farmers keep their SIM cards during the introduction of technology services irrespective of the MNO. Since most farmers own only one mobile phone, forcing them to use a new SIM card (through

bundling of information services) indirectly creates a problem, because the farmers have already been using the number linked with their original SIM card to do business with other farmers or other agricultural stakeholders. Thus, simply introducing a new service will not lead farmers to switch from the SIM card that they have already been using for a long time.

Partner buy-in especially for development of new financial products takes time

There is a perception that the agriculture sector is a high-risk sector and that the tangible benefits of providing financial services to farmers are uncertain (particularly if measure from the perspective of commercial). The project was gradually able to eliminate this perception by presenting a business case. The successful introduction of the use of AndaraLink Mobile with a Savings and Loan Cooperative in Bali to serve farmers provided evidence to the management of Bank Andara that commercial benefits could be achieved by Bank Andara and Microfinance Institutions in providing financial services to farmers. The partnership with 10 Microfinance Institutions and the Agri-Fin Mobile project has provided significant advantages to Bank Andara, as the number of savings and loan payment collection transactions in the first quarter of 2015 exceeded 150,000 transactions per month.

Engagement with the District Extension Offices is a key factor for collaboration with farmer organisations

One result of the baseline study by the Agri-Fin Mobile Program in Indonesia was that farmers expressed constraints in interacting with agricultural extension workers. The constraint arises from the limited number of agricultural extension workers relative to the number of farmer groups that need to be served. Nevertheless, the agricultural extension workers are a source that is trusted by the farmers, particularly for consultation about innovations or new services conveyed to farmers. Therefore, program buy-in from the Agricultural Extension Offices at the activity locations (districts and sub-districts) to cooperate with farmer organisations is a requirement for success. As an example, the rollout of the financial literacy program for female farmers in partnership with female agricultural extension workers as trainers was supported by approval from the Head of the District Agricultural Extension Office, who assigned the agricultural extension coordinator to serve as the focal point for the Agri-Fin Mobile Program.

An incentive system mechanism is vital for successful implementation

During the loan period, when farmers face problems relating to their crops, the first people they contact are the heads of the farmer groups or the produce traders. Because the farmers' locations are remote and widely dispersed, often the heads of farmer groups or produce traders have to spend extra money to reach the farmers' locations so that the problems the farmers are facing can be explained clearly to the field personnel of the rural banks. For the future scaling up of the program, it is necessary to identify the additional costs that will be needed so that the process of monitoring and ensuring repayment by the farmers can proceed. These costs will be used as an incentive for the parties whose role is needed to ensure that the program objectives are achieved, and both the agribusiness companies and financial institutions should meet this cost.

Cash-in and cash-out points

Cash-in and cash-out points are highly critical for the successful achievement in the broad form of payment platforms. Agri-Fin Mobile's approach is to build strategic alliances with leading MNO's and "off takers" to develop an ecosystem for cash-in and cash-out points; the current situation is that agents are located on average 10kms away from rural smallholder farmers and this presents a major constraint. The approach does not only increase transactions and access, but is also a springboard for entrepreneurial persons within the rural environment.

Business value proposition

Payment platforms are developed around strong revenue models but this should be consistent among all the partners in the system. Experience from Uganda shows that value is gained by the different players with the buyers "off takers", having faster procurements and safety in delivery of payments at a low cost, while for the agent this becomes an increased revenue stream through transactions. The farmers in this case have an opportunity to postpone immediate expenditure, while having their payments secure with transactional data for credit scoring generated.

Inclusiveness of partners or stakeholders

Having a lot more inclusiveness of partners on payment platforms increases the product offerings and value of the product. In Uganda, the current mobile value payment platform with MTN and Airtel has attracted a financial literacy component to the payment offering, to allow users increase their knowledge on financial management and decision making. Another mobile

banking platform will be providing weather data and financial literacy to all credit borrowers at the Savings and Credit Cooperatives (SACCO's) with disbursements through mobile, a typical bundled service definition. SACCO's are informal member based rural banking institutions that are joined through buying shares.

In Indonesia, Agri-Fin Mobile in partnership with Bank Andara and microfinance institutions (rural banks and cooperatives) facilitates the AndaraLink mobile payment platform for farmers, there are several factors to take into consideration to ensure its overall success;

How can public and private sector players collaborate to establish a regulatory environment that enables and encourages investment and innovation?

In Uganda, a partnership with the FIT Uganda, a private company providing agricultural advisory information to farmers together with Mercy Corps have integrated a mobile literacy component previously developed by the Central Bank to the Agricultural content. The central bank's key interest is to fully embrace the approach if it is impactful and to have other players such as MNO's and financial institutions on board to strengthen the partnership and delivery of services which in one way increases their product offering.

In Indonesia, through our PISAgro platform, the government, the private sector, and NGOs such as Mercy Corps have continuously engaged in sharing the various challenges that have been faced and lessons learned from several successful partnership models. In this way, all parties are able to communicate openly without suspicion or prejudice towards one another. In addition, the government sector has recognized that the main role of the government is as a facilitator. Thus, the discussion of regulatory issues that impede investment and innovation are held openly, and solutions sought.

Collaborative work with the regulators for the various sectors should avoid the overlap in offering financial services to the underserved. The overlapping of different sectors particularly for the insurance product calls for different regulators to be i.e. insurance regulator, central bank (financial services) and telecommunications regulators. The government could play a key role in coordination of regulatory efforts for the different sectors. However, NGO's could be neutral partners that can coordinate regulatory efforts through working groups to ensure regulations of the different sectors do not stifle innovation.

What new partnership models are needed to support sustained coordination?

The aspiration for more product offerings to products and services being provided by current players should be explored. Our own experience with smallholder farmers indicates that a vertical alignment of increased interest to products and services being offered, is a slow but steady graduation to embracing and growth along the spectrum for more providers.

The PISAgro platform model should be further developed by inviting several other stakeholders that have not yet joined, such as telecommunications companies and mobile platform providers. The existence of work groups on cross-cutting issues such as Agri finance and ICT will be highly effective. In order to ensure the model's sustainability, we should put the commercial principle as a necessary condition and involve more local farmer organisations and local rural advisory providers.

New partnership models that embrace new roles of partners are fundamental for the coordination of efforts for improving access to formal financial services. The emerging partnerships between NGOs and MNOs are important however continuously engaging the public sector players will ensure sustainability of interventions and improved coordination.



CONCLUSION

This final report demonstrates the importance of digital agricultural finance as a key enabler for agricultural growth in the 3 countries we have implemented over the past 3 years where over 200,000 smallholder farmers were profiled and had access to products and services under the program. Despite significant improvements in this area in previous years, and several ongoing efforts by the Agri-Fin Mobile project and its development partners, there is still further improvement potential for the project especially in the area of bundling the products and services from the 5% to at least 30% of the profiled farmers to receive bundled services across the 3 countries.

This report recommends addressing these with a set of interventions that focus on four key themes (a) improving incentives and regulatory environment to increase financial services in the rural sector, (Uganda and Zimbabwe) (b) expanding financial inclusion by strengthening rural financial institutions as channels,

(c) accelerating the introduction of new product offerings, and (d) improving the overall "fitness" of the digital financial sector across the 3 countries and Agri-Fin mobile to champion these initiatives.

The initiatives outlined above seek to provide a platform for future growth, which can lead to an acceleration of productivity in the agriculture sector and increases in income as a whole. The phase II project will also lead to financial services that are more responsive to smallholder farmers, the agricultural environment and the rural community by becoming more inclusive, healthier, better regulated and supervised. Agri-Fin Mobile project can be used as a strong starting point for further initiatives to enable rural digital financial and agricultural information services to reach smallholder farmers and support the next wave of agricultural growth while increasing production and incomes of smallholder farmers.



APPENDICES

1. AGRIFIN MOBILE END OF PHASE I DASHBOARD AS OF: MAY 30, 2015

Program Key Indicators (All Cumulative)	Current Month	Last Month:
Total # of Interactions	4,925,852	4,601,358
Total # of SHF receiving Bundled services	5,128	3,463
Total # SHF reached by the program	638,679	601,416
Total # of Active SHF	155,308	131,533
Total # of Farmers receiving loans	1,541	1,758
Total # of profiled SHF	222,015	184,046
#Messages sent monthly	2,436,502	4,385,737

Indonesia Key Indicators	Current Month	Last Month:
Stage of the bundle	3rd stage	3rd stage
# SHFs	105,498	90,410
# Active SHFs	93,314	79,597
# Profiled SHFs	105,046	87,145
# SHF receiving bundled services	5,128	3,463
# SHFs with financial services (lit & info)	2,615	2,417
# SHFs with Agri-info. services	73,570	70,407
# Digital Agri payments	19,546	6,575
# SHF paying for the service	93,116	76,982
Female farmers (Fit Lit or interactions)	12,382	12,382
# SHF total interactions	3,542,510	3,128,945
#Messages sent monthly	155,256	175,199
#SHF linked to Financial (loans /savings)	1,541	1,758

Zimbabwe Key Indicators	Current Month	Last Month:
Stage of the bundle	1st stage	1 stage
# SHFs	491,779	478,722
# Active SHFs	39,652	39,127
# Profiled SHFs	75,567	64,617
# SHF receiving bundled services	0	0
# SHFs with financial services (lit & info)	2,562	1,644
# SHFs with Agri-info. services	487,043	487,722
# Digital Agri payments	2,050	2,050
# SHF paying for the service	1,611	1,611
Female farmers (Fit Lit or interactions)	0	0
# SHF total interactions	491,779	478,722
#Messages sent monthly	2,238,246	4,187,038

Uganda Key Indicators	Current Month	Last Month:
Stage of the bundle	2nd stage	2nd stage
# SHFs	41,402	32,284
# Active SHFs	22,342	12,809
# Profiled SHFs	41,402	32,284
# SHF receiving bundled services	0	0
# SHFs with financial services (lit & info)	6,730	2,399
# SHFs with Agri-info. services	15,237	11,497
# Digital Agri payments (Value in USD)	36,700	28,673
# Digital Agri Payments	1,410	973
# SHF paying for the service	2,588	2,588
Female farmers (Fit Lit or interactions)	320	120
# SHF total interactions	891,563	933,691
#Messages sent monthly	43,000	23,500

Definition of Bundled services:

The addition of one or more services/product to a pre-existing service/products to the same farmer.

Definition of Interactions

The total number of farmers that receive information services from the Agri-Fin Mobile program.

Definition of active SHF

The total number of farmers that pay for the services offered by the Agri-Fin Mobile program through our partners.

Stage of the Bundled services:

1. Agri Advisory services
2. Financial Advisory services
3. Agri payments
4. Credit facilitation (linkage to financing)

Publications:

1. GFRAS paper on Global good practices
2. Article online on Balancing Act web page
3. GSMA case study on Agri-Fin Mobile

Conference/important meeting attended:

1. Attended Fin4Ag conference in Nairobi
2. GFRAS
3. GSMA -Mobile world
4. GSMA, Mobile series -Atlanta and South Africa
5. ELEVATE II
6. Mobile integration in Agriculture in Netherlands
7. eAgriculture Conference 2014 in Malaysia

2. SUMMARY OF PARTNERSHIPS

Agri-fin Mobile Zimbabwe

Partner	Period of partnership	Nature of partnership and activities	Beneficiaries
Kaite	Sub-grant 1 May 2013 – 30 August 2013 - \$9,000	A sub-grant was issued to KAITE a specialized produce buyer to support the testing of digital agriculture value chain payment. Specifically KAITE has: <ul style="list-style-type: none"> • trained smallholder farmers on mobile literacy and on using Ecocash • facilitated payments via mobile money to test the concept • promoted mobile money for agriculture value chain payments 	<ul style="list-style-type: none"> • 488 smallholder farmers trained on Ecocash and paid through Ecocash
Econet Wireless	MOU 1 June 2012 – date	Econet has worked with us to develop and rollout of the bundle of services. Econet has: <ul style="list-style-type: none"> • handled the system development of the project • developed marketing campaigns, and launched the service in two provinces • developed branding material for the services and use by the brand ambassadors • participated in workshops to refine products and provided a platform to pilot and test new ideas • facilitated engagements with other subsidiaries to develop other components of the bundle – Ecocash, steward bank • provided product training to selected brand ambassadors and to smallholder farmers in financial literacy trainings • facilitated the delivery of financial literacy sms to trained smallholder farmers • provided access to data to test and refine concepts • worked with the project to develop new proposals and concepts for additional funding 	<ul style="list-style-type: none"> • 39,652 farmers have been manually registered on to the Ecofarmer platform and 1 611 smallholder farmers accessed the weather index insurance through the Econet ,ZFU and Ministry of Agriculture partnerships • 918 smallholder farmers have received training on financial literacy in partnership with Econet, ZFU and the Ministry of Agriculture, Mechanisation and Irrigation Development. • 490 agents were trained and facilitate registration of farmers onto the platform.
ZFU	MOU – 1 June 2015 – May 2015 (phase 2 MOU being processed) Sub grant agreement - \$28,575	ZFU committed to supporting the development and rollout of the services and were contracted identify and pay agents to manually register farmers on the platform. They have : <ul style="list-style-type: none"> • consistently provided product development input by participating in various research exercises, workshops and meetings • facilitated the selection and established a network of brand ambassadors • facilitated the payments of the brand ambassadors through the sub-grant • supervises activities of the brand ambassadors in the field • played a critical role in registration and promotion of the Ecofarmer suite of services • facilitated valuable feedback sessions • conducted periodic product training in the two provinces • conducted financial literacy training – • Played an effective coordination role for all Agri-fin related activities at the grassroots level. 	

Ministry Of Agriculture, Mechanisation and Irrigation Development	Letter of Intent dated 22 April 2013(ongoing)	<p>The ministry registered their support of the program particularly on content development and training of extension officers and farmers. They have supported the project in the following areas:</p> <ul style="list-style-type: none"> • Extension staff has promoted the Ecofarmer suite of services • Extension staff has assisted in coordination of any Agri-fin related activities in the field including trainings and research exercises • The Ministry has supported the development of content and the development of a content database • The Ministry has supported the selection of brand ambassadors • The Ministry supports the call center for Ecofarmer 	
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Agri-fin Mobile Indonesia

Partner	Period of partnership	Nature of partnership and activities	Numbers reached
8villages/ PT. 8villages Indonesia	1 st Sub-grant, 15 November 2012 – 30 May 2013 - \$31,067	<ul style="list-style-type: none"> • 30 marketing events are held • 1,500 Agricultural Extension Workers receive socialisation and training on LISA platform • 9,000 new farmers registered on LISA 	<ul style="list-style-type: none"> • 30 marketing events are held • 222 Agricultural Extension Workers trained • 802 farmers registered on LISA platform
	2 nd Sub-grant, 1 July 2013 – 30 June 2014 - \$108,761 NCE, 30 June 2014 - April 2015	<ul style="list-style-type: none"> • Minimum eighty thousand (80,000) and maximum one hundred thousand (100,000) farmers enjoying the platform service on a daily basis • Minimum three (3) and maximum ten (10) of agri-business/agricultural programs signed up utilizing the 8villages platform • LISA marketing events in collaboration with carriers and ministry of Agriculture 	<p>As end of April 2015:</p> <ul style="list-style-type: none"> • 7 marketing events in collaboration with Ministry of Agriculture are held • 67 marketing events in collaboration with MNOs are held • 1,115 Agricultural Extension Workers trained • 80,005 SHFs registered on LISA platform • 6 agribusiness companies signed up
Bank Andara	Partnership Agreement, 23 May 2013 – May 2015	<ul style="list-style-type: none"> • Each party agrees that it will proactively works toward achieving the aim of reaching 80,000 SHFs (on a best effort basis) over a two year period to conduct agriculture value chain payments utilizing Andara Link and will provide regular updates 	<ul style="list-style-type: none"> • Through partnership with 10 Microfinance Institutions (rural banks and cooperatives), 20,273 SHFs are used Andara Link services • 104,339 payment transactions are made by farmers
	MoU, 11 October 2014 – 30 April 2015	Provide loan funds to BPR Pesisir Akbar that will be used to finance a maximum of 200 corn farmers with a maximum planting area of 400HA	Lent IDR 3.1 billion (USD 248,000) to a rural bank and rural bank lent microfinance loans to 198 corn farmers

Syngenta Indonesia	MoU, 11 October 2014 – 30 April 2015	<ul style="list-style-type: none"> • Provide information on ADB technology to farmers/farmer groups that receive loans from BPR Pesisir Akbar, either in person or through mobile devices; • Provide field assistance personnel to give assistance to farmers in applying ADB technology; • Prepare the assistance schedule for each farmer/farmer group that will receive a loan from BPR Pesisir Akbar 	<ul style="list-style-type: none"> • Introduced the ADB Technology • Provided three agronomist to train and assist 198 corn farmers (385HA) • Sent monitoring report for 30 DAP, 60 DAP, 90 DAP, 100 DAP to Bank Andara and Mercy Corps Indonesia • Sent SMS Blast on the ADB Technology to 198 corn farmers
Agriculture Faculty, Gadjah Mada University	Cash grant, November 2014 – April 2015, IDR 67 million	<ul style="list-style-type: none"> • Organize launch for the Farmer Application • Provide experts to Rumah Pintar Petani members (Smart Farmer House) • Organize training of the Farmer Application to Agriculture Agency and Extension Office representatives • Upload article onto the Farmer Application 	<ul style="list-style-type: none"> • The farmer android application has launched in Gadjah Mada University • 62 articles have uploaded onto Farmer Application • Hold two trainings during the launch event • 1,658 users has registered in the Farmer Application (mostly agricultural extension workers)
Agriculture Extension Offices in four districts	Agreement with Coordinator of Agriculture Extension Workers, December 2013 – October 2014	<ul style="list-style-type: none"> • Provide female agriculture extension workers as trainer • Coordinate with sub-district Agriculture Extension Offices to deliver the financial literacy training to 10,000 female farmers 	<ul style="list-style-type: none"> • 16 female agriculture extension workers are trained through ToT (pilot phase) • 71 female agriculture extension workers are trained through ToT (pilot phase) • 71 female extension workers are delivered financial literacy training to 10,000 female farmers
Koperasi Gapoktan Sinar Langgeng (Farmer Group Union Cooperative)	Cash grant, 1 May 2013 – 31 August 2013, IDR 34 million Amendment Agreement, until 30 November 2013	<ul style="list-style-type: none"> • Minimum of 500 payment service transactions per month • Open demand deposit account at Bank Andara, minimum of Rp 5 million/month • Marketing/promotion plan and strategy available 	<ul style="list-style-type: none"> • Demand deposit in Bank Andara: IDR 65 million • Three marketing events are held • Four field officers are trained • 103 users are using Andara Link payment services
BPR ADY Banyuwangi (Rural Bank)	Cash grant, December 2014 – 30 April 2015, IDR 30 million	<ul style="list-style-type: none"> • At least 750 farmers (clients and prospective clients) are using AndaraLink Mobile services • A minimum of a cumulative total of 3,500 bill payment, domestic remittance and collection solution transactions by farmers by 30 April 2015 	<ul style="list-style-type: none"> • 9,662 farmers are using AndaraLink services • 62,700 transactions made by farmers
CU Rahayu (Credit Union)	Cash grant, December 2014 – 30 April 2015, IDR 30 million	<ul style="list-style-type: none"> • At least 750 farmers (clients and prospective clients) are using AndaraLink Mobile services • A minimum of a cumulative total of 3,500 bill payment, domestic remittance and collection solution transactions by farmers by 30 April 2015 	<ul style="list-style-type: none"> • 2,513 farmers are using AndaraLink services • 21,956 transactions made by farmers

BPR Jombang (Rural Bank)	Cash grant, December 2014 – 30 April 2015, IDR 30 million	<ul style="list-style-type: none"> At least 750 farmers (clients and prospective clients) are using AndaraLink Mobile services A minimum of a cumulative total of 3,500 bill payment, domestic remittance and collection solution transactions by farmers by 30 April 2015 	<ul style="list-style-type: none"> 1,795 farmers are using AndaraLink services 2,343 transactions made by farmers
KUD Dwi Karya (Village Unit Cooperative)	Cash grant, December 2014 – 30 April 2015, IDR 30 million	<ul style="list-style-type: none"> At least 750 farmers (clients and prospective clients) are using AndaraLink Mobile services A minimum of a cumulative total of 3,500 bill payment, domestic remittance and collection solution transactions by farmers by 30 April 2015 	<ul style="list-style-type: none"> 1,822 farmers are using AndaraLink services 7,514 transactions made by farmers
BPR Pesisir Akbar (Rural Bank)	Cash grant, March 2015 – 15 May 2015, IDR 25 million	<ul style="list-style-type: none"> At least 250 farmers (clients and prospective clients) are using AndaraLink Mobile services A minimum of a cumulative total of 1,000 bill payment, domestic remittance and collection solution transactions by farmers by 30 April 2015 	<ul style="list-style-type: none"> 560 farmers are using AndaraLink services 648 transactions made by farmers
KSP SAS (Saving and Loan Cooperative)	Cash grant, February – 15 May 2015, IDR 30 million	<ul style="list-style-type: none"> At least 500 farmers (clients and prospective clients) are using AndaraLink Mobile services A minimum of a cumulative total of 2,000 bill payment, domestic remittance and collection solution transactions by farmers by 15 May 2015 	<ul style="list-style-type: none"> 320 farmers are using AndaraLink services 1,691 transactions made by farmers
KUD Mintorogo (Village Unit Cooperative)	Cash grant, February – 15 May 2015, IDR 20 million	<ul style="list-style-type: none"> At least 500 farmers (clients and prospective clients) are using AndaraLink Mobile services A minimum of a cumulative total of 2,000 bill payment, domestic remittance and collection solution transactions by farmers by 15 May 2015 	<ul style="list-style-type: none"> 123 farmers are using AndaraLink services 123 transactions made by farmers
KOSPIN Bersama (Saving and Loan Cooperative)	Cash grant, February – 15 May 2015, IDR 30 million	<ul style="list-style-type: none"> At least 500 farmers (clients and prospective clients) are using AndaraLink Mobile services A minimum of a cumulative total of 2,000 bill payment, domestic remittance and collection solution transactions by farmers by 15 May 2015 	<ul style="list-style-type: none"> 1,875 farmers are using AndaraLink services 3,948 transactions made by farmers
KJKS Maslahat Ummah (Shariah Financial Service Cooperative)	Cash grant, February – 15 May 2015, IDR 30 million	<ul style="list-style-type: none"> At least 500 farmers (clients and prospective clients) are using AndaraLink Mobile services A minimum of a cumulative total of 2,000 bill payment, domestic remittance and collection solution transactions by farmers by 15 May 2015 	<ul style="list-style-type: none"> 1,500 farmers are using AndaraLink services 3,373 transactions made by farmers

AIRTEL	Partnership Agreement April 2013 – on going	Provide support to all data and Mobile ICT solutions that require activation by Telecom	<ul style="list-style-type: none"> Signed on Beyonic on the PI platform Signed Ensibuuko as an aggregator for mobile money)
FIT Uganda	Sub -rant, October 2013 – May 2014 \$76,000	Agriculture Extension to deliver the Agricultural tips, weather and financial literacy training to 15,000 female farmers	<ul style="list-style-type: none"> 21,000 farmers registered and profiled to the Farmis platform
Ensibuuko Tech	Sub-grant \$53,000 November 2014 – May 2015	Develop a robust system to support SACCOs in Uganda with a mobile wallet to help VSLA transact better	<ul style="list-style-type: none"> \$28,000 transactions on the system 22,000 smallholder farmers approached
BEYONIC	Sub-grant \$35000 November 2014 – May 2015	To develop a fund to pay platform enabled with mobile money and use of bulk payments platform with buyers to farmers	<ul style="list-style-type: none"> \$40,000 transactions on the platform Mobile money capacity building done at farmer level, merchants / buyers and Farmers 62,700 transactions made by farmers
SWIFT aka Basic Transfer	Agreement September 2014 to December 2014	Work with 200 female farmers on cash transfers for new enterprises to jump start their economic growth	<ul style="list-style-type: none"> Worked with 340 female farmers
CTA	Grant to Mercy corps of £17,890	Develop and train farmers on mobile applications using traditional means to ensure adoption and impact on the use of mobile application in Agriculture and finance	<ul style="list-style-type: none"> 1200 farmers trained 3 SACCOs trained

Agri-fin Mobile Uganda

Partner	Period of partnership	Nature of partnership and activities	Numbers reached
MOBI PAY	<ul style="list-style-type: none"> 1st sub-grant, November 2012 – May 2013 \$70,000 	<ul style="list-style-type: none"> To work with cooperatives on digital financial inclusion To profile and connect 30,000 Build the capacity of the cooperative plus farmers profiled 	<ul style="list-style-type: none"> 16,000 farmers profiles and 7 cooperatives
Orange Telecom	<ul style="list-style-type: none"> Partnership Agreement, May 2013 to May 2014 	<ul style="list-style-type: none"> Work with farmers on promoting e payments and mobile money as a add on to digital financial services 	<ul style="list-style-type: none"> Provided Sim cards to 20,000 farmers in Northern Uganda
MTN	<ul style="list-style-type: none"> Partnership Agreement April 2013 – on going 	<ul style="list-style-type: none"> Provide support to all data and Mobile ICT solutions that require activation by Telecom 	<ul style="list-style-type: none"> Signed on Beyonic on the PI platform Signed Ensibuuko as an aggregator for mobile money

3. FINAL RESULTS FRAMEWORK

Hierarchy of objectives	Key Indicators	Progress	Data Sources
Strategy of Intervention			Means of Verification
Impact (Overall Goal)	Impact Indicators		
Incomes of small-holders increased and stabilised	% increase in Smallholders income at the end of a 3-year phase (farmers' investments)	To be measured from the final evaluation in April/May, 2015	Baseline study through focus groups in each country
	- Proportion of Smallholders managing their production cycle in a more effective way	To be measured from the final evaluation in April/May, 2015	- Sample evidence from selected case- studies and smallholder survey in each partner country
Outcomes	Outcome Indicators		
Outcome 1			
Demand-driven bundled financial and rural advisory services via mobile phones are elaborated and made available	In each country, at least 1 set of context-specific and appropriate mobile services are available to target groups	Mobile and web applications have been developed, allowing farmers to access agricultural advisory and financial literacy through their Mobile phones. These include Ecofarmer, FARMIS and LISA.	Statistics on use of services (delivery, downloads, transaction fees...)
		Aggregated mobile payment platforms allow not only for farmers to be paid through multiple MNOs, but also for farmers to make payments for bills, loan remittances. These include Fund to Phone and AndaraLink.	Surveys with key stakeholders and farmers (focus groups) starting year 2) to show utility
		A core banking information system is available for SACCO's integrated with mobile features for mobile money and sms. This allows for farmers to access credit and remits loan payments through mobile. The sms component will be used to send loan payment reminders and financial literacy messages. This is MOBIS.	Progress reports MC and partners
Farmers and RAS providers have contributed to the content of the services		Content Management and dissemination to smallholder farmers has been achieved through Agribusiness enterprise platforms. These include FIT Uganda and 8Villages. Zimbabwe Farmers Union and extension officers have also been involved in product development, marketing and roll-out.	
		Various local experts from Universities and Agriculture ministries as well as agriculture extension workers are available to engage with farmers. This has also helped provide feedback from the farmers about the services offered. Some of these communication channels are AgriNet and PT. Syngenta.	

	There is a measurable/tangible utility of services at farmers' level	There is an improvement in quality of harvest due to the empowerment of farmers with information. Quantitative changes in yields, incomes and margins will be determined in the end line survey.	
		Farmers can interact with other farmers and extension workers through the communication and group features of the information platforms they now have access to.	
		Farmers can save their time and travel costs because they have quick and easy access to content and financial management platforms.	
Outcome 2			
Sustainable and scalable business models are established and work	In each country, at least one partnership of 4 stakeholders with a working business model has been established	The program has partnered with various financial institutions (banks, credit unions, village unit cooperatives, farmer groups) for the provision of financial literacy services, loans, mobile money payment platforms to mention but a few.	Signed MoUs, contracts, other legal documents, minutes of meetings...
		Testing of Business models has been done in phase I, measurement of efficiency and functionality of the business model has been established as some of the services are still at a development stage and the services that have been rolled out are offered at no cost to the farmer. The second phase will work on improving and stress testing of the business models.	Three completed business plans are shared by stakeholders and used for implementation
		Full-fledged participation of the agricultural sector (RAS provider and/or FO and/or input supplier in partnership- (product specifications show direct inputs from product development research questionnaires from farmers and RAS providers)	Product development research was conducted with farmers and farmer associations.
		Findings of the research were used to engage input suppliers for product development (agricultural and financial services)	
Outcome 3			
Smallholders have sustainable access and make accurate use of financial and rural advisory services	180'000 smallholders have access and make accurate use of services	As of the end of February 2015, 151,008 SHFs had access to and active use the mobile agriculture information, technology, financial literacy, mobile payment services and loan services provided by the Program.	Baseline study and comparison with sample survey each year to show access, usage (gender disaggregated)

	Number of farmers accessing agricultural advisory services	As of the end of February 2015, 122,342 SHFs have access to services and were actively using the agricultural advisory services through the SMS Based and Farmer Android Applications.	Specific sample surveys for vulnerable groups each year to show access and usage (gender disaggregated)
	30'000 farmers of vulnerable groups have the capacity to make accurate use of the services	As of the end of February 2015, more than 56 agents had received a ToT whereas 13,626 female farmers had received training on the use of the agricultural information services.	Analysis and qualitative assessment of efficiency: bundled mobile services vs. standard services (possibly baseline study) Progress reports MC and partners
	Reduced transaction costs of financial advisory services for smallholders and service providers(- % change in average transaction utility (to include financial cost, as well as cost of time, convenience & security, and net impact to income)	The availability of agricultural information on the farmers' mobiles means that they can save on expenditure for purchase of production inputs (especially fertilizer and pesticide) an estimated average of 30%. At the same time, they experience an increase in output averaging 20%. More precise figures will be determined in the final evaluation	
Outcome 4			
Knowledge of models, services and products are captured and shared internationally for dissemination and replication	Similar initiatives are in planning (scaling up)	The LISA platform that was launched by 8villages in Indonesia in December 2012 was then replicated and launched for farmers in Myanmar in 2014. In November 2014, the farmer application (Android based) was also launched in Indonesia with a primary target of agricultural extension workers	Survey on socialisation and dissemination activities within knowledge networks One joint publication with GFRAS
	- participation and product positioning in 3 international knowledge networks (Fin, ICT, RAS)	Presented Bundled Agriculture Information and Financial Services for SHFs in Food Security Summit: Asia 2014 in Jakarta	
		Presented Mobile Agriculture Information model in Share Event GFRAS 2013, Berlin	
		Presented Mobile Agriculture Information and Payment Services for Indonesian Farmers in ICT4Ag 2013, Rwanda	
		Program also participated in FIN4Ag in Nairobi, GFRAS 2014, and GSMA 2014/2015 and also presented at the World bank's Agri-Fin Forum.	
	The program is part of the GSMA mAgri group and attends the annual working group workshops and GSMA Africa mobile summits.		

Outputs (per outcome) and cost	Output Indicators		
Output 1			
3 product development research studies conducted to build understanding among partners of need for agricultural and financial services, and major barriers to their use	# of studies conducted	Three studies: baseline, product market research and value chain were conducted.	Project Documents: Research studies
	Dissemination of research products to partners, colleague agencies and other stakeholders	Findings of the studies are shared with partners as well as made available online.	Survey (survey monkey among partners)
	Needs and barriers better known among partners	Continuous engagement through FGDs and 1-1 interviews with farmers and farmer organisations regarding the partners' services have provided feedback. This feedback has informed the partners' decision making process.	
Output 2			
First stage bundled mobile services and products are identified, tested, and built by partners in each country	# of products and services tested and delivered to the market	4 products have been tested and delivered to the market: agricultural advisory services; digital payments; financial literacy; and access to credit services.	Project Documents: project development
	# of engaged RAS/FOs and types of technical inputs in each country	520 farmer groups, 10 district agricultural extension offices, 2 universities and 1 off-taker.	Documents and business plans
	Financial engagement of MC, engagement of partners (financial, in kind)	Technical inputs are: product development and roll out of services; agricultural advisory services; digital payments for agricultural services and products; and training in financial literacy. 28% is from MC while 72% is from partners	Questionnaire/written feedback of RAS/FOs
Output 3			
Mobile applications and interfaces developed or identified for 1st bundled services by the project	# of 1st stage bundled services for which appropriate mobile application and/or interfaces are developed or identified	Fully developed: LISA, FARMIS, Fund to Phone application , I Partially developed: EcoFarmer, MOBIS	Project documents: business plans and product specifications
	Applicability/user-friendliness of applications	LISA and EcoFarmer are available in SMS. Easy and user friendly for farmers. FARMIS is yet to develop a USSD compatible menu.	Sample testing of application by target group

Output 4			
2nd & 3rd stage products developed by the project	Number of services added to each first stage bundle under a cohesive business model	Financial and agricultural services are available. Covering the 2 stages of the bundle Micro-insurance services was added but there still hiccups on adoption of the services	Project documents: business plans and product specifications Sample testing of application by target group
	Applicability/user-friendliness of applications	There is access to mobile applications like: payment services through the rural bank smartphone; Bluetooth printer; as well as toll free line to the customer centre.	
Output 5			
Partner MOUs signed & project plans developed in each country	# of partnerships developed between financial institutions, agricultural value-added service providers, and mobile operators	Signed 3 MoU for financial services across the 3 countries	Project documents: MOUs
		Signed 6 MoUs for mobile agricultural services across the 3 countries	Survey with partners
		Signed MoU for 5 telecom services across the 3 countries	
Output 6			
Detailed business plan written to guide partners in implementation of the bundled services	#of business plans written	One business plan was drafted for the program	Project documents: business plans
	Partner feedback indicates usefulness of plan in implementation of services, and that the plan reflects positive impact on their institution	There has been an improvement in elements like marketing and gender integration. Business models developed have also worked well.	
Output 7			
RAS provider or FO participation in each partnership	Participation of at least one RAS provider or FO in each partnership	Farmer groups (including female farmer groups), district extension offices, SAC-COs, and representatives of agricultural ministries have always been involved in partnership they have a strategic position and will contribute to most of the farmer assessments hence to allow the program improve on the service	Project documents: reports of meetings MOUs Written references of RAS/FOs inputs in partnerships and services (questionnaire)
Output 8			
Implementation of marketing strategy to reach target groups	#marketing strategies elaborated and put into use with partners	Marketing strategies have been developed for 8villages, EcoNet and FARMIS.	Marketing strategy documents
	Farmers report ability to utilize and benefit from access to services	FGDs and 1-1 interviews results had indicated the benefit of LISA for farmers FGDs and 1-1 interviews results had indicated that farmers have greatly appreciated and found value in the services.	Specific sample surveys for target groups(disaggregated vulnerability, gender and youth) Docs from advertisement campaigns

Output 9			
Capacity building and education strategies developed and implemented	30,000 farmers of vulnerable groups have received capacity building	13,626 female farmers received both training and actual services. ToTs are also being carried out for financial literacy for female farmers.	Specific sample surveys for target groups (disaggregated gender and youth)
	Vulnerable farmers report ability to utilize and benefit from access to services	Female farmers have benefited from: daily tips and financial literacy materials about financial management; and record keeping. Financial; literacy by Bank of Uganda and GIZ has seen radio stations and agents in both Uganda and Zimbabwe benefit from the Financial literacy training	
Output 10			
Training of trainers developed and delivered to partner staff to train smallholders on how to use their mobile phones to access services	# of trainings developed	4 trainings have been developed and an actual 700 trainings delivered by the female agriculture extension workers for female farmers	Project documents and records Project documents: training materials Questionnaire (at the end of training)
	# ToT workshops delivered	4 ToTs for agricultural services; 6 for financial literacy; 16 for the program services; and 9 for insurance services.	
	Quality and utility of training to target groups (not only the trained staff)	The increase in farmer uptake of services is a show of the effectiveness of the training. Some of the trainees have moved on to develop their own programs, like financial literacy messaging.	
Output 11			
Groundwork for and measures of sustainability for service delivery established	Business models include financial projections showing path to sustainability. Partners on track for break-even	The final evaluation will be able to inform the program on the status of this indicator	Project documents: financial projections actuals vs. projection Docs from advertisement campaigns
	Willingness of partners to continue investing in services for target group	MFIs invested more devices to rolling out mobile applications for farmers	Corporate strategy docs of partners
		There is an expansion of services to cover greater geographical areas as well as increase the range of services offered. More engagement is on-going with other off-takers to utilise the mobile service platforms.	

Output 12			
Documentation of good practices and of lessons learned established	Program website launched with all program documents for public use, as well as regular program updates and blogs	Program website was developed Agrifin-mobile.org , 3e-books on particular topics have been published each year , Dashboard with monitoring statistics disseminated every month to show progress and 3 Annual report were written and shared with key stakeholders	Project documents: eBooks Survey Program website
	eBooks on building business models and technology (year 1), product development (year 2), service delivery, marketing & capacity building (year 3) Partners report access and usage of program publications	Provided inputs for 3 eBooks	
Output 13			
Change assessments on farmers' incomes, profits, savings and assets and productivity made	At least 3 analytical studies with lessons learned are produced (1 per year), published and socialized	Baseline study conducted and shared. Rapid assessments shared with partners.	Project baseline and surveys Project documents: M&E reports, including annual studies
	Partners report access and usage of program publications	A survey was conducted to capture the value of Agri-Fin Mobile Program staff, program newsletters and the website as a source of information. The findings were shared with partners.	Survey
Output 14			
Active promotion of project experience in target countries and internationally.	# of international forum attended and presented at	(GFRAS in Berlin 2013 GFRAS 2014 , ICT4Ag in Rwanda 2013, FIN4Ag 2014, GSMA Mobile Summit 2013, GSMA 2014/2015 , Asia Food Security Summit 2014 and the World Bank Agri-Fin forum	Reports/minutes of international conferences Presentations
	<i>Own meetings/conference for socialisation</i>	partner meetings	List
		ICT /Agri forums	
		MAgric working group meetings	
		Digital finance focus groups	
		GSMA	
	Work banks Agri-Fin facility		
<i># of development partners, forums engaged</i>	PISAgro		
	CGAP		
	GFRAS		

AGRI-FIN MOBILE PROGRAM

Mercy Corps' Agri-Fin Mobile program seeks to improve productivity and incomes amongst smallholder farmers through bundling essential agricultural information and financial services in affordable, unified platforms and mobile phone channels to promote mass uptake commercially. Agri-Fin Mobile program works through strategic alliances with content providers, financial institutions, MNO's and third party platform providers . Through this program, Mercy Corps facilitates development of a business model whereby the bundling process provides an increased value proposition for each partner and the smallholder farmer that we serve.

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