**AgriFin Accelerate**

**Consultancy Scope of Work (SOW)**

**Firm or Individual:** Firm or Individual

**Consultant:** N/A

**Program:** AgriFin Accelerate

**Scope of Project:** Desert Locust Citizen Reporting Case Study

**Country:** Kenya & Ethiopia

**From:** September 2020

**To:**  October 2020

**Task Manager:** John Mundy- Agrifin Emergency Locust and Covid-19 Lead

**Technical Manager:** Samuel Karanja-Agrifin Agriculture Manager
 Elena Holtkotte- Agrifin Communications Lead

**Program Context**

One billion people in rural areas around the world live on less than US$1.25 a day1 including nearly 500 million smallholder farmers (SHF) who provide 80% of the food for the developing world2. For the 70 million smallholder farmers living in Sub Saharan Africa,3 farm productivity is only 56% of the world's average. This is due to a range of risk factors, including weak infrastructure, poor market linkages and lack of access to information and critical services including finance, inputs and extension, as well as a wide range of social factors.4

SHFs are the most underserved group in the world by financial services, with women and youth at a particular disadvantage.5 Investment in this sector is critical, as economic growth from agriculture is at least twice as effective in reducing poverty as growth in other sectors.6 at an estimated $450 billion, the global demand for smallholder agricultural finance is largely unmet. Impact-driven agricultural lenders are estimated to reach no more than two percent of demand.7. Digital technology can be a powerful tool to reach smallholders with information, market linkages and financial services with extremely low costs at sufficient scale. A recent McKinsey study estimates that mobile and internet technology can drive up to $3 billion in annual agricultural productivity gains by 2025.8. However, McKinsey points to the specific scale challenge for mobile agriculture services, recommending focus on the full ecosystem around farmers, including warehousing, logistics, finance and insurance to drive a critical mass of uptake.9 It is difficult for a single player to achieve scale in this space on its own. Partnerships and high functioning market ecosystems are essential to build sustainable and efficient agricultural markets.

The AgriFin Accelerate program is a six-year, $25 million program funded by the Mastercard Foundation. The core problem AgriFin Accelerate seeks to address is the inclusion gap for smallholder farmers (SHF) who lack access to affordable, accessible, demand-driven financial products and services that drive higher productivity and income for farm families. The ecosystems required to serve smallholders are both complex and fragmented. Market actors are often hampered by lack of strong understanding of smallholder needs and are therefore unable to design impactful products, channels and other relevant services for them. At the same time, farmers often lack the information, trust and capacity to access and productively utilize new products and tools. This is a key area related to AgriFin’s communications strategy.

**AgriFin Accelerate Program Overview**

Drawing on Mercy Corps’ experience implementing the AgriFin Mobile program and years of work in the agriculture, finance and ICT sectors, AgriFin Accelerate will **s**upport the expansion of digital financial services (DFS) to one million farmers in Sub-Saharan Africa (SSA) over six years, delivered by growing ecosystems of diverse service providers. AgriFin Accelerate’s primary target group is unbanked smallholder farmers living on less than $2.50 per day in Kenya, Tanzania and Zambia. Three outcomes will contribute to the achievement of this goal:

*Outcome 1:* Market actors expand, improve and continue to offer high-impact DFS products and services that are tailored to address the expressed needs of SHFs;

*Outcome 2*: Farmers increase capability to access and utilize demand-driven, high impact technology-enabled financial products and services relevant to SHFs;

*Outcome 3*: Ecosystems around both supplier and farmers emerge supporting provision of digital financial and informational services to SHFs that are used at scale.

The program’s core innovations are: 1) a rapid iteration engagement model to drive innovative, client-centric product development; and 2) our work with partners to develop “bundles” of mobile-enabled services offering farmers affordable access to digital financial and market informational services. Specific focal areas for innovation will include the use of digital technology to educate and inform farmers, tech start up acceleration, the use of new and alternative data to support financial service design and the use of human centered design techniques to ensure products are closely linked to the needs of farmers, particularly women and youth. The program will follow an ecosystem and market facilitation approach supported through partnership activities and dissemination of evidence-based learning to ecosystem actors following a Market Systems Development (MSD) approach, with a strong gender focus. The program will also include a strong and targeted communications focus.

AgriFin Accelerate’s primary target group is unbanked smallholder farmers living on less than $2 per day in Kenya, Tanzania and Zambia. More than 70% of Africa’s poor reside in rural areas, most of whom depend on agriculture for their food and livelihood. Addressing the needs of smallholder farmers is a prerequisite to large-scale poverty reduction.10 For the purposes of this program, the definition of agriculture and farming will encompass a wide variety of crop, livestock and fisheries production. Gender mapping and analysis will be incorporated into all initial country studies and baseline studies and will be built into the MErL – monitoring, evaluation, research and learning – framework with the goal of promoting at least 50% access to mobile-enabled services by women, with a secondary focus on youth farmers.

AFA focuses on building high impact services at the farmer level, expanded and sustainable delivery at the partner level, and development of related market-oriented interventions supporting ecosystem development. The program will collaborate closely around learning with Mercy Corps’ existing AgriFin Mobile program, already working in Uganda, Zimbabwe and Indonesia for 3 years.

**Purpose of Engagement**

 The Horn of Africa is being hit by the worst Desert Locust outbreak in decades, following years of drought and unusually heavy rains and flooding in late 2019, providing the perfect conditions for Desert Locusts to breed. Critical gaps in field level data from smallholder farmer and pastoralist communities were encountered in part due to the Covid-19 pandemic, but also due to the rapid nature of the Desert Locust infestation. This is a key obstacle preventing targeted Desert Locust control measures in the region.

In collaboration with the governments of Kenya and Ethiopia, AgriFin supported a consortium of partners to deploy citizen reporting solutions via digital channels so that farmers could report sightings of locusts to fill this gap. This in turn creating enhanced mapping and control efforts, with integrations between WhatsApp, SMS, call center data to the existing FAO-led ecloust3m platform and in collaboration with Pennsylvania State University’s Plant Village machine learning solutions.

In Kenya, Mediae created tailored Desert Locust programming on their Shamba Shape Up weekly television program to inform farmers about Desert Locusts and to encourage reporting. Meanwhile, iShamba (a sister company of Mediae) deployed the WhatsApp for Business hotline (with support from Turn.io), SMS hotline and call center to support the citizen reporting effort. In Ethiopia, the Agricultural Transformation Agency (ATA) has led the effort to develop the WhatsApp hotline for multiple regions and languages, and in coordination with its 8028 SMS surveys, accompanied by television and radio public announcements adapted from Kenya.

The nature of this multi-partner, multi-channel, regional effort was to test, deploy and learn from new rapid digital response techniques that address the emergency nature of the Desert Locust related food security threat, while being highly applicable for the COVID-19 pandemic. The purpose, therefore, of this case study is to provide sector learnings that:

1. Fully capture the emergency deployment of a farmer-facing Desert Locust hotline via SMS, WhatsApp and call centre channels to create opportunities for: 1) farmer awareness, 2) drive farmer level reporting at scale via SMS and WhatsApp channels available to them, and 3) rich data flow from farmers which should add depth and hyper local data sets to satellite and aerial imaging means available to institutions monitoring the locust swarms.
2. Understand the effectiveness of public information campaigns combined with digital tools for smallholder farmers with advice, reporting guidance and mapping – raising awareness in farming communities at scale – as it relates to citizen reporting.
3. Suggest pathways to designing, implementing and scaling digitally enabled citizen response efforts based on this work. This includes mapping key areas of constraint and opportunity across response channels in relation to key contextual (country/partner) parameters to guide other actors in this space.

**Scope of Work**

This scope of work sets the terms of reference for a firm to:

1. Capture the journey of the Desert Locust response with the AgriFin consortium of partners with special emphasis on the use case/s of citizen reporting and digital platforms engaged (SMS, WhatsApp, Call Center, elocust3m) and on the interoperability with remote sensing/GIS, machine learning and data collection systems;
2. Analyze and detail the lessons learned, best practices and utility of the desert locust citizen reporting case and apply for future use cases (with emphasis on agricultural reporting needs – e.g. pests, flooding, etc);
3. Explore the interactivity of citizen reporting with edutainment channels (e.g. Mediae’s Shamba Shape Up);
4. Conduct a landscape scan to understand and compare citizen reporting cases via digital channels for smallholders’ farmers that exist – focused on but not limited to digitally-enabled solutions responding to common challenges in the East Africa market;
5. Investigate potential models for improving citizen reporting uptake by farming communities and enhanced digital means to reach them;
6. Provide a strategic framing for key stakeholders on how to catalyze an overall more scalable model of citizen reporting across countries and themes, linking to data, remote sensing, machine learning and other systems.
7. Highlight the linkages with the entomology of locusts, modelling/forecasting methods and academic research efforts underway with Pennsylvania state/Plantvillage.

This project implementation shall be fully consultative with key stakeholders and all learning outputs will be developed in close coordination with AgriFin to ensure recommendations and final learning outputs, remain strategically aligned the program strategy.

**Deliverables**

The firm will provide AgriFin with the following deliverables, with specific timelines to be agreed in the approved work plan:

1. Kickoff meeting and project work plan;
2. 1-pager outline on the case study, to be agreed with task manager (in consultation with AgriFin team);
3. PowerPoint (20 slides) and summary blog in Word (2 pages) covering all aspects of the case study outlined above;
4. Minimum two infographics of key findings of the case study;
5. Any other related supporting documents and work products.

**Project Learning Agenda**

In order to meet the requirements of the donor agreements for the AgriFin Accelerate program, Mercy Corps must be able to demonstrate a return on investment in terms of impact on smallholder farmers through this project. Linked to the public benefit of this funding and objectives of the program, AFA will share selected project learning publically, to drive improved understanding of the environment for digital services for smallholder farmers.

To achieve its objectives to expand services to one million smallholder farmers, increasing farmer incomes and productivity, AFA seeks to build on the current field of learning linked to these specific learning questions:

* + - 1. What impact have AgriFin partners had on SHF income, productivity and resilience to shocks?
1. What financial and value-added products and services do SHFs, including women and youth, value most and why?
2. How does bundling of products and services impact uptake and usage of digital financial services?
3. What capacity building tools have the highest impact on SHFs willingness and ability to use digital financial services?
4. What distribution channels are most effective for delivery of services to SHFs?
5. How and to what extent have AgriFin partners have been successful to achieve scale and commercial sustainability?
6. What are the main drivers of success and failure of different partnership and bundled approaches?

**Budget and Terms of Payment**

The budget commitment from AFA to this project it to be determined with contractor. Payment will be approved upon acceptance of final deliverables.

**Necessary Skills and Experience**

The team working on this project should demonstrate expertise and knowledge of AgriFin’s partners’ business models, as well as knowledge of the agriculture and agri-finance sectors.

**Ownership/Control of Work Product/Publication**

Matters relating to ownership and control of work product and publication of materials produced during course of this engagement are addressed in the main contract agreement entered into between Mercy Corps and the Consultant for performance of services for AgriFin Accelerate.

**Authorship and Acknowledgement**

Matters relating to authorship and acknowledgment of any materials produced by the Consultant during the course of this engagement are addressed in the main contract agreement entered into between Mercy Corps and the Consultant for performance of services for AgriFin Digital Farmer.

**Task Manager/Coordination/Reporting**

The Task Manager for this engagement is the John Mundy at AFA. The firm will direct all communications to the AFA Task Manager.

# Endnotes

1. IFAD, Smallholders, food security, and the environment, 2013

2. Peck, Anderson, “Segmentation of Smallholder Households: Meeting the Range of Financial Needs in Agricultural Families”, 2013.

3. [New Partnership for Africa’s Development](http://www.ipsnews.net/2012/11/striving-to-increase-african-food-productivity/), & <http://www.ipsnews.net/2012/12/the-industrialisation-of-africas-smallholder-agriculture/>

4. Peck, Anderson, CGAP 2013

5. AgriFin Facility Strategy. World Bank. 2010.

6. Agriculture sector strategy 2010–2014, African Development Bank; World development report 2008: Agriculture for development, World Bank

7. Dalberg, 2012

8. McKinsey, “Lions Go Digital; The Internet’s Transformative Potential in Africa”, 2013.

9. McKinsey, “Lions go digital: The internet’s transformative potential in Africa”, Nov 2013.

10. Schmidhuber, J., Bruinsma, J., and Boedeker, G, “Capital requirements for agriculture in developing countries to 2050,” Paper presented at the Expert Meeting on How to Feed the World in 2050 of the Food and Agriculture Organization of the United Nations, Rome, Italy. Retrieved from ftp://ftp.fao.org/docrep/fao/012/ak974e/ak974e00.pdf