



Scaling Climate Smart Agriculture

*Tech Innovation, Wins, Fails, Emergencies
and Unholy Alliances*

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Skoll World Forum – Virtual!

BILL & MELINDA
GATES *foundation*



AGENDA

- › Welcome & Panel Introductions
- › Quick Guide to AgriFin
- › Panel Discussion
- › Question & Answer
- › Wrap Up



INTRODUCING OUR PANELISTS

1. **Dr. David Bergvinson**, Chief Science Officer, aWhere



2. **Sitati Kituyi**, CTO, Pula Advisors



3. **Samir Ibrahim**, CEO SunCulture



4. **Laura Crow**, Senior Product Manager M-PESA, Vodafone Group



5. **Gustav Praekelt**, Founder Praekelt.org & Co-Founder Turn.io



6. **Dr. Catherine Nakalembe**, NASA Harvest Africa Program Lead



SCALING CLIMATE SMART AGRICULTURE

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Mercy Corps AgriFin Program Objectives



Mercy Corps AgriFin is a \$30 million initiative working in **Kenya, Tanzania, Ethiopia, Zambia and Nigeria** funded by the **Gates and MasterCard Foundations**

MCAF supports **expansion of digitally-enabled services to 3.5 million farmers**, delivered by growing ecosystems of diverse service providers

TARGET GROUP

ADF works with **underserved smallholder farmers** living on less than \$2.50/day

With outreach to **40% women**

SCALING CLIMATE SMART AGRICULTURE

Approach: Innovation Focus



**FOCAL AREAS FOR
INNOVATION**

Smart Farming & Ag Advisory
Financial Products & Services
Digital Markets
Logistics & Distribution
Alternative Data & Credit Scoring



We support more than 100 partners to develop, prototype, test and scale digital services for more than 3.5 million farmers in Africa

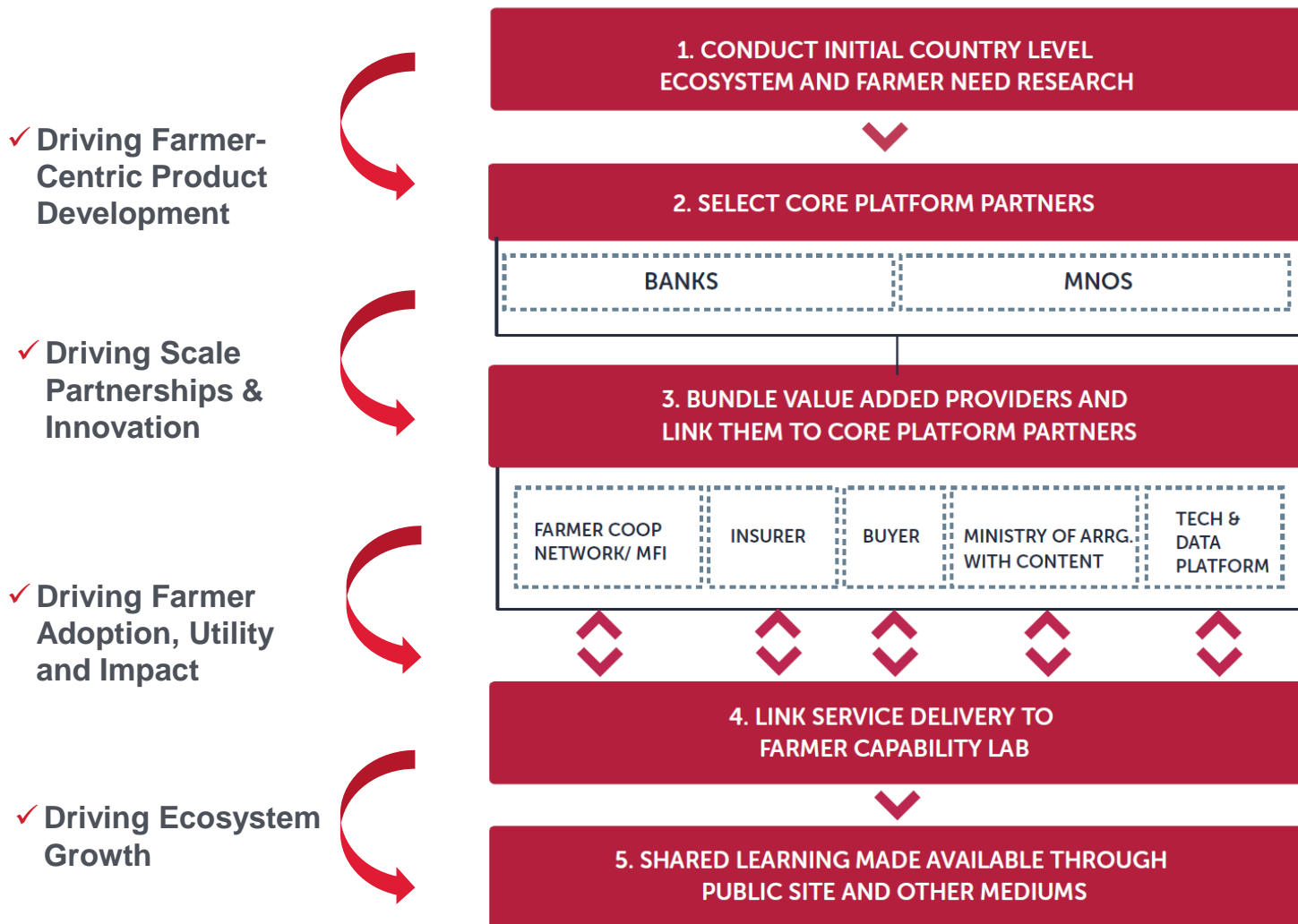
AgriFin Approach: Building Digital Ecosystems

We build digital ecosystems by identifying digital drivers, building partnerships and alliances, and ensuring it all works for farmers

“Uncommon partners are the types of organizations you might not typically work with, but which can significantly help you create radical new futures.” —Kyle Nel, SU Faculty, Corporate Innovation



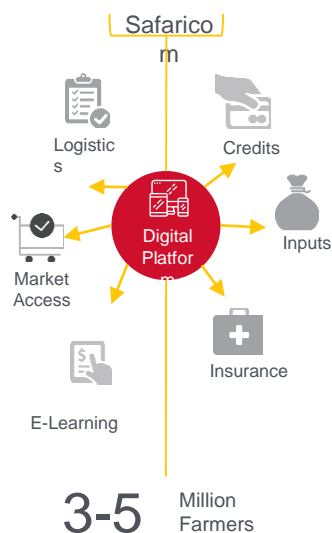
AgriFin Engagement Model



Models to a Million Farmers

Currently, 13 partners are targeting at least a million smallholders with different approaches

Digital Mass Market Platform



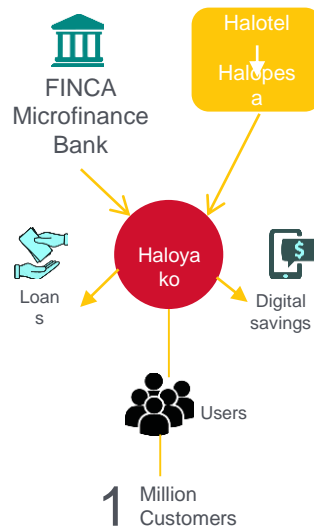
Countries	KY
Current Outreach	1,200,000

Digital VSLAs



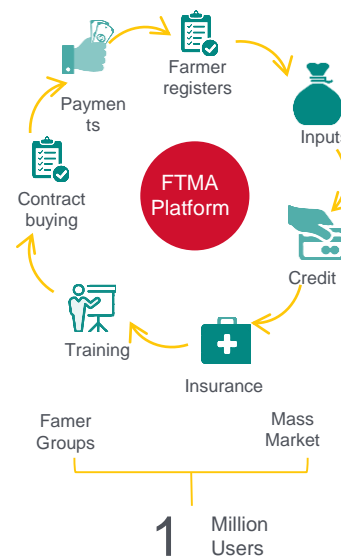
Countries	KY-TZ-ZMB
Current Outreach	25,000

TELCO & MFI Bank Partnership



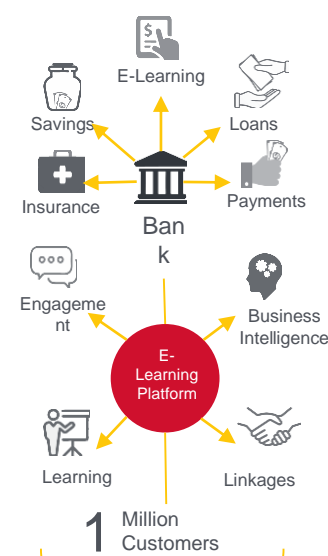
Countries	TZ
Current Outreach	350,000

Managed Digital Contracting Platform



Countries	KY, TZ, RW
Current Outreach	125,000

Digital Learning & Engagement



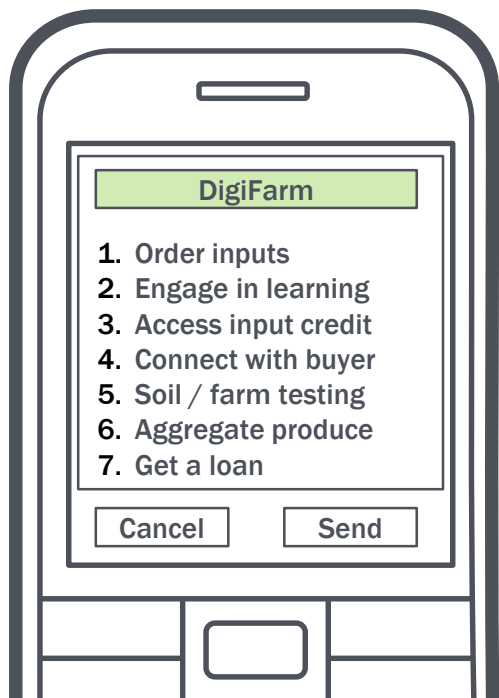
Countries	KY
Current Outreach	300,000

KY-Kenya; ZM-Zambia; TZ- Tanzania; RW - Rwanda

Measured as of Feb 2020

DigiFarm: Award Winning Farmer Platform in Kenya

Launched in 2017, DigiFarm is Safaricom's integrated mobile platform that works with partners to offer farmers a convenient, **one-stop access to the product and services** they require to run efficient farming operations. To-date, DigiFarm has the following features:



1. Order inputs

DigiFarm allows farmers to purchase inputs through selected vendors

4. Connect with buyer

Digifarm connects farmers to buyers in specific value chains

2. Engage in Learning

DigiFarm provides access to educational content for best farming practices and financial literacy

5. Soil Testing & Precision Ag

Digifarm tests soil to understand required inputs and suitability for value chain production

3. Input and Harvest Loans






DigiFarm provides digital credit products based on alternative credit scoring, bundled with crop insurance

6. Aggregate produce

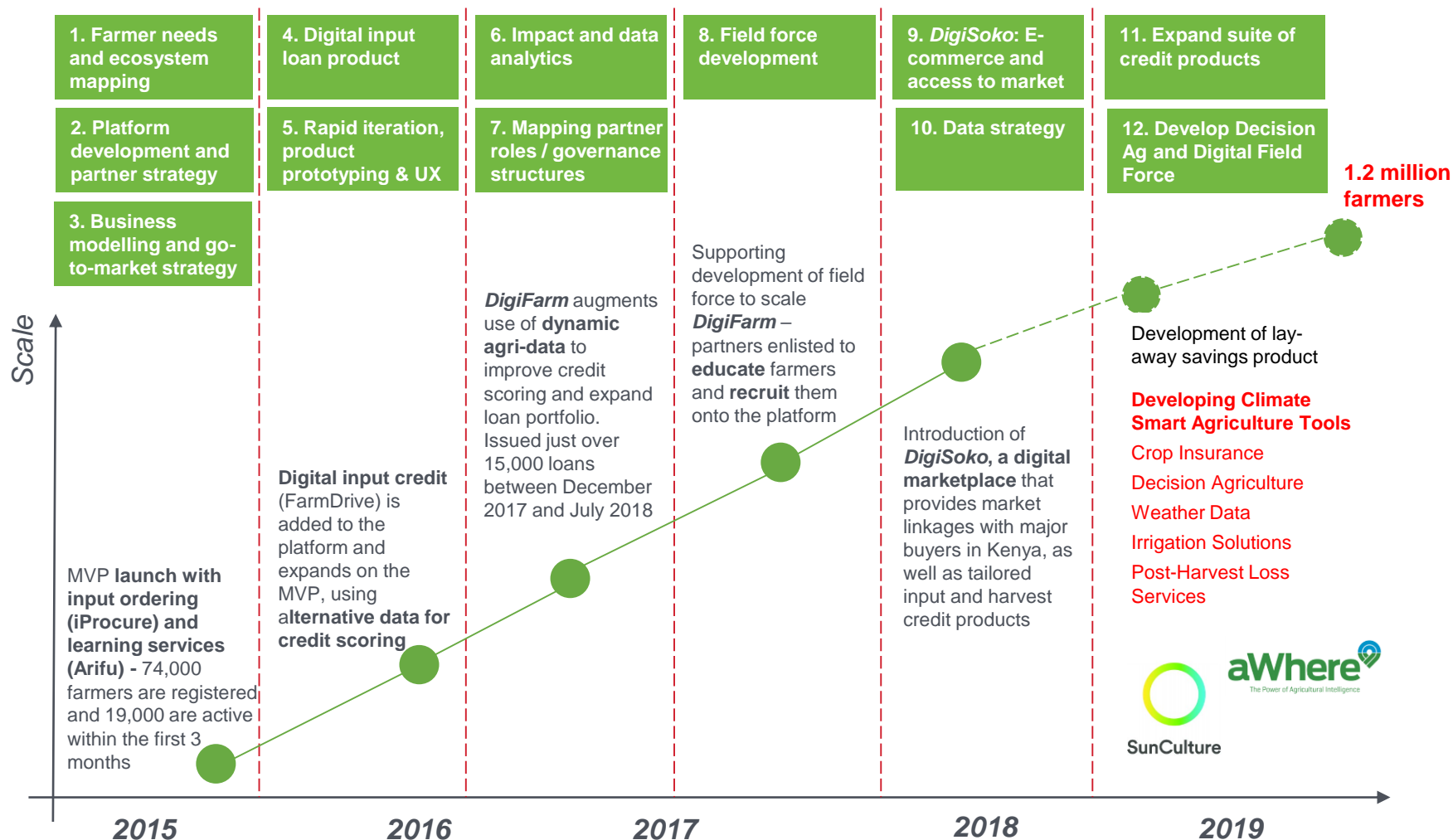
Digifarm links farmers to selected buyers, offering them a guaranteed buyer and full production support

DigiFarm Platform & Partnerships

DigiFarm draws on a wide range of capabilities from other partners. The integrated nature of the platform and use of digital data seeks to leverage each partner's strength, reduce risk, and drive higher revenues across the partnership

					
Core activities	<ul style="list-style-type: none"> • Manage platform and provide payment services, communications, 	<ul style="list-style-type: none"> • Provide low cost inputs to farmers through input depots 	<ul style="list-style-type: none"> • Provide learning content for farmers farmers on platform, via USSD 	<ul style="list-style-type: none"> • Digital and video learning content • Web-based budgeting tool • Call centre support support 	<ul style="list-style-type: none"> • Provide insurance to farmers
Revenues	<ul style="list-style-type: none"> • M-Pesa transaction fees • Interest income • Market access trading fees 	<ul style="list-style-type: none"> • Fees on input sales sales 	<ul style="list-style-type: none"> • Content development • Fees per active learner 		<ul style="list-style-type: none"> • Insurance premiums
Costs	<ul style="list-style-type: none"> • Customer acquisition • ATL/BTL marketing • Tech development / maintenance • Software licensing / hardware • Customer service 	<ul style="list-style-type: none"> • Cost of goods sold • Warehousing/ delivery vehicles and logistics • Tech platform • Customer service • BTL marketing 	<ul style="list-style-type: none"> • Tech platform • Data analytics • Customer service 		<ul style="list-style-type: none"> • Processing insurance claims • Data collection e.g., e.g., yield measurements

AgriFin Support & The Case for Climate Smart Agriculture



Climate Change is a Current & Urgent Challenge for Smallholders

- Because 95% of agriculture in SSA is rainfed, **SHFs are highly vulnerable to changes in weather.**
- **Climate change is already causing yield declines for staple crops.**
- Future projections indicate an **increasingly variable climate** including changes in rainfall, temperature, increased pests and more frequent extreme weather.
- **SHFs are struggling to gain access to information** on how best to manage their farms.
- **FAO estimates possible 25% decline in crop yields by 2025 linked to climate change in Africa.**



The Agrifin D-CSA Playbook – What is it?

A sector guide to **Digital Climate Smart Agriculture or D-CSA** including the case for D-CSA, key design principles, high potential opportunities, and examples of D-CSA in action.

D-CSA leverages digital tools to help smallholder farmers **increase productivity and resilience in the face of climate change** while contributing to mitigation where possible and appropriate.

see: www.mercycorpsagrifin.org

Climate Smart Agriculture in Africa

✓ **CSA Interventions must always be contextual**

Top 10 Technologies Ranked by “Climate-Smartness” in Africa

1. Silvopasture (integrated system of trees/forage/livestock)
2. Conservation Agriculture
3. Water management
4. Biogas
5. Integrated pest management
6. Aquasilviculture (integrated system of aquaculture and mangroves)
7. Improved Pastures
8. Green manure/Cover crops
9. Intercropping
10. Improved rice management

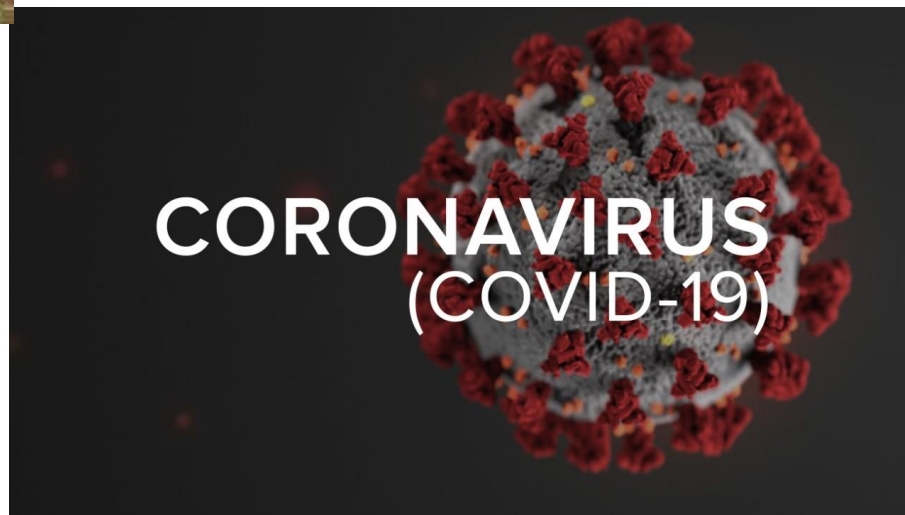
Enter Desert Locust – and COVID 19



Kenya is now being hit by the worst locust outbreak in East Africa in decades, following years of drought and unusually heavy rains, providing the perfect conditions for locusts to breed. According to the IPC, 9.75 million people living in areas affected by **desert locusts** in Ethiopia, **Kenya**, and Somalia are currently or projected to be in crisis.

COVID 19 has now hit East Africa with dramatic swiftness. **This health crisis can quickly turn into a food security crisis**, and put at risk far more lives than the disease itself. AgriFin is working with Turn.io to leverage WhatsApp and machine learning and NASA Harvest on food security and locust interventions, as well as insurance, cash transfers and market support with other partners.

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Thank you!

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