Contents

Fund objectives and intended impact

- Portfolio review
- Achievements in 2018
- Learnings so far
- Looking ahead – scaling up interventions
- Annex – portfolio summary 2018
The objective and intended impact of the Mastercard Foundation Fund for Rural Prosperity.

**OBJECTIVE**
Reach 1 million financially excluded people in rural and agricultural areas in Sub-Saharan Africa

**INTENDED IMPACT**

**Farmer Level**
 Improve livelihoods and incomes of smallholder farmers by building their capabilities to access and use financial services

**Institution/Firm Level**
 Enable financial services providers and agribusinesses to develop and expand access and partnerships for smallholder farmers

**Sector Level**
 Promote systemic change in agricultural finance by attracting other influential actors and supporting innovation

Fund Size: **US$50 million**  Period: **7 years** (25/08/2014 – 31/12/2021)
Funding competitions and focus.

- **Innovation Rounds**: Focus on design, pilot, test, and launch of new financial products and services to effectively meet the financing needs of the rural communities.

- **Scaling Rounds**: Focus on proven concepts, products, and business models that could be expanded into new geographies and markets.

- **Rolling Rounds**: Opportunity for high potential applications which were unsuccessful in one round to strengthen their applications and re-enter them.

  Financial service providers, tech-for-finance companies, businesses offering a rural finance component.

  Financial services (loans, savings, transaction facilitation, insurance).

  Beneficiaries/Rural communities.
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Fund support as at December 2018.

US$40.7 awarded since inception in 2015

38 projects

$9.3M available for selected strategic investment
Where selected Fund participants operate.

The Fund supports projects across Sub-Saharan Africa; a large share is concentrated in East Africa.

- Regional difference was more pronounced in earlier competitions due to high levels of sophistication in innovative mobile solutions proposed by East African countries.
- In subsequent rolling competitions, more focus was put into selecting projects outside of East Africa.

55% of projects are implemented in Kenya, Tanzania or Uganda.

- **Uganda**: 8 projects
- **Kenya**: 9 projects
- **Tanzania**: 6 projects

15 Countries of operation to date
How large are the grants?

- Average grant size is ~$1.1m
- Grant size varies considerably, from ~$300k to $2.5m
- The majority of projects (26/38) were awarded grants in the range $0.5 – 1.5M
- The largest grants were awarded to projects funded under the Scaling window, reflecting the focus on scaling up proven concepts
Participant segmentation

**Direct banking**
Companies providing financial services and products to the unbanked rural poor—e.g. new loans, savings mechanisms, insurance products, etc.

- *E.g. Musoni Kenya Ltd.* and Grameen Foundation have designed a 100% mobile-based agricultural loan product called Kilimo Booster, designed to enable smallholders to access affordable working capital.

**Inputs based finance**
Companies provide financial services as an add-on to input sales/make access to finance conditional on input purchases

- *E.g. Pula Advisors* uses high-quality agricultural inputs as a “pull product” to provide insurance and agronomic advice as part of the package.

**Asset finance**
Companies provide innovative mechanisms to enable the rural poor to bear the upfront cost of an asset

- *E.g. Easy Solar* sells entry-level solar lamps on a rent-to-own payment plan to build customer relations and density, and repayment history as credit scoring for the sale of more expensive solar products.

**Tech for access to**
Companies develop innovative data- or IT-based solutions to improve credit risk profiling, connect supply chain actors, enable insurance provision, etc.

- *E.g. First Access* is developing an agricultural credit scoring engine, providing financial service providers with a tool that will drive financial accessibility for rural borrowers.
Participant business models.

Number of participants by business model

- Around 1/3 of the participants provide **direct banking services** to the rural poor, and a quarter are outgrower models, although there is a reasonable balance across the fund.
- Out of the total of USD 40.7m the amount of funding received by each business model is **roughly proportionate** to the number of grantees (see trend line in RHS graph).
- The **averaging funding amount is thus roughly equal** ($1.1m) across business models, with slightly lower grants for tech projects.
Financial services offered by participants.

<table>
<thead>
<tr>
<th>Number of projects</th>
<th>Credit</th>
<th>Savings</th>
<th>Transactions</th>
<th>Insurance</th>
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<tbody>
<tr>
<td></td>
<td>![Credit Icon]</td>
<td>![Savings Icon]</td>
<td>![Transactions Icon]</td>
<td>![Insurance Icon]</td>
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</tbody>
</table>

- **Most popular**: offered by 76% of projects
- **Most likely to be offered independent**: of other products (11 out of 12 projects)
- **Always the product offered by asset financing companies**

- **Almost always bundled**: with other financial products (11 out of 12 projects)
- **Provided almost exclusively by the “direct banking” companies**
- **Includes an early-stage innovative pension product**

- **Of particular importance for outgrower companies to streamline supply chains**
- **Can be used to build up a credit rating – i.e. a stepping stone to access to loans**

- **Tends to be bundled**: with other products (6 out of 8 projects)
- **Generally provided either through direct banking or as an add-on to inputs purchases**
- **Focal point for tech innovations in the A2F space**

Note: Products are frequently bundled together, which means that in the above, some individual products are double-counted in this breakdown.
Customer/user reach by projects supported.

- Total household outreach target for FRP* is **13.5 million**
- Impact targets vary substantially, with CRDB’s target constituting 34% of the fund’s total, and Juhudi Kilimo only 0.002%
- CRDB and First Access are both Innovation Round projects, rather than Scaling, as could be expected

At the lower end, targets range from 780 for Juhudi Kilimo to 11.2k for SolarNow
Target variation by business model.

- **Innovative tech projects** (First Access, Compuscan) have some of the highest targets – as can be expected for tech-based interventions. However, they are arguably the furthest away from direct impact.

- By contrast, **outgrowers** (Ibero, Olam Uganda, Lima Kwanza, Prothom) have some of the more modest targets since outgrower scheme sizes are limited by practical considerations of coordination and product transportation. However, they arguably achieve the deepest/most reliable impact.
By design, scaling round projects have been the recipients of the largest grants, regardless of projected impact.

Overall, no clear relationship between grant size and outreach target.
Customers reached vs. disbursements to date

APA Insurance is a clear outlier, with c. 560k beneficiaries against c. 900k grant amount disbursed

There is a slightly positive trend between grant amounts disbursed and impact, although the relationship is not strong.
The Fund seeks to measure these results.

<table>
<thead>
<tr>
<th>Impact</th>
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<tbody>
<tr>
<td>• Rural people reached</td>
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<tr>
<td>• Change in rural income</td>
<td></td>
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<tr>
<td>• Change in household resilience</td>
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</table>

<table>
<thead>
<tr>
<th>Outcome</th>
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<tbody>
<tr>
<td>• Increased usership of financial product and services</td>
<td></td>
</tr>
<tr>
<td>• Change in customer / user income</td>
<td></td>
</tr>
<tr>
<td>• Customer satisfaction</td>
<td></td>
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<tr>
<td>• Commercial performance</td>
<td></td>
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<tr>
<td>• Job creation within the FRP project</td>
<td></td>
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<tr>
<td>• Additional investment leveraged</td>
<td></td>
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<tr>
<td>• Ecosystem change: replication of FRP funded models</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Output 1 Project outputs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Financial products supported</td>
<td></td>
</tr>
<tr>
<td>• Additional number of customers / users (year on year)</td>
<td></td>
</tr>
<tr>
<td>• Outreach of financial literacy capacity building</td>
<td></td>
</tr>
<tr>
<td>• Measurement of customer satisfaction</td>
<td></td>
</tr>
</tbody>
</table>
Numbers of **new** customers reached in 2018.

2018 has been a year of significant growth in outreach: The Fund has more than **DOUBLED** its customer base compared to end of 2017.

- **Pre-2018**: 432,715 customers reached to date, or ~ 6.65M households beneficiaries
- **2018**: 897,943* customers reached to date

This represents ~ **61%** of the consolidated target of all funded projects.

3 grantees are responsible for **two thirds** of new customers:
- CRDB
- **APA Insurance** (*government subsidy for insurance*)
- **Pula Advisors** (*effective bundling of free insurance with Monsanto seed sales*)

* Customer acquisition figures are based on reporting from 27 projects submitting high quality data in 2018.
Numbers of **women and youth** customers reached in 2018.

**3 projects** (Musoni, Dodore, Prothem)
- **262,517*** Women reached by participants in 2018
- With women as >50% of new customers
- **35%** Average share of new female customers in 2018, per project

**2 projects** (Pula Advisors and Copia)
- **266,957*** Youth reached by participants in 2018
- With the youth as >50% of new customers
- **27%** Average share of new youth customers in 2018, per project

*Figures are based on reporting from 26 projects submitting high quality disaggregated data in 2018*
New financial products and services launched in 2018.

<table>
<thead>
<tr>
<th>No of new products</th>
<th>Credit</th>
<th>Saving</th>
<th>Transaction</th>
<th>Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>28</td>
<td>10</td>
<td>20</td>
<td>9</td>
</tr>
</tbody>
</table>

- **Credit**: 28
  - E.g. Apollo Agriculture has started offering a customized package of farm inputs & advice on credit to rural farmers

- **Saving**: 10
  - E.g. Finserve Africa has launched Mkey App which includes a savings wallet that enables savings as low as KES 100

- **Transaction**: 20
  - E.g. Dodore Kenya has launched its AgriWallet which features a mobile-based market platform and a function for providing pre-payment of produce

- **Insurance**: 9
  - E.g. Pula Advisors have launched a bundled product whereby insurance is provided for free with input purchases

With 73 products launched (incl. 5 bundled), the 2018 target of 40 products has been substantially exceeded.
The success of new financial products and services.

<table>
<thead>
<tr>
<th>New customers in 2018</th>
<th>Credit</th>
<th>Saving</th>
<th>Transactions</th>
<th>Insurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>94,077</td>
<td>46,414</td>
<td>281,902</td>
<td>495,639</td>
<td></td>
</tr>
<tr>
<td>294,750</td>
<td>2,230</td>
<td>82,200</td>
<td>762,021</td>
<td></td>
</tr>
<tr>
<td><strong>Average uptake per new product</strong></td>
<td><strong>10,527</strong></td>
<td><strong>4,641</strong></td>
<td><strong>4,110</strong></td>
<td><strong>84,669</strong></td>
</tr>
</tbody>
</table>

Active customers per new product

- Credit products are showing **strong evidence of latent demand** – customers who sign up for the service ("new customers") tend to use the service actively, for longer than 1 year.
- Savings products appear to suffer from **commitment / capability issues** – customers sign up but fail to use the service.
- High insurance figures are heavily skewed by APA Insurance, subsidised by the Kenyan government.

* Active customers only considered for projects reporting progress in the second half of 2018.
Women and Youth: usage of new financial products and services.

<table>
<thead>
<tr>
<th></th>
<th>Credit</th>
<th>Saving</th>
<th>Transactions</th>
<th>Insurance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of new customers</td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td>29%</td>
</tr>
<tr>
<td>Share of active customers</td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td>41%</td>
</tr>
<tr>
<td><strong>Youth</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of new customers</td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td>18%</td>
</tr>
<tr>
<td>Share of active customers</td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td><img src="image" alt="Pie Chart" /></td>
<td>25%</td>
</tr>
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</table>

Women and youth are still **under-represented** in the customer base; however, it seems that there is **higher interest in credit, savings and insurance products** (based on # of active customers) than the 2018 customer outreach figures would suggest.

*Active customers only considered for 22 projects reporting progress in the second half of 2018
*Total % only measured for 25 projects reporting gender/youth breakdown by product
Numbers of customers being supported with capacity building.

# of Customers trained has more than doubled in 2018

Pre-2018 215,075

2018 + 376,228

Fund total to date = 591,303

Women and youth were well represented

47% Average share of women trainees

30% Average share of youth trainees

(for projects reporting disaggregated data)

For both subgroups, training participation is proportionately higher than customer registration

Training approaches vary substantially

- **Ibero Uganda** has provided one-on-one training to farmers on software and data entry to enable them to use the mobile money platform
- **FutureLink** has coordinated financial literacy training sessions to fit around other SACCO sessions
- **Dodore** has taken a “training of trainers” approach
Direct job creation.

Job places created across the portfolio

- Total for 2018: 954

Average job creation by business model

- Outgrower: 72
- Direct banking: 35
- Tech: 3
- Asset finance: 7
- Inputs-based: 22

Note that the above breakdown related to direct job creation by Fund participants in implementing their projects.

Delays in implementation for some projects have led to job creation lagging slightly behind the target.

Outgrower models are more labour-intensive – which translates into higher cost per beneficiary.
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Alternative Data

Why is alternative data important for access to finance?

• One of the fundamental problems of access to finance in rural Africa is the perceived risk – stemming, to a large extent, from a lack of information.

• Finding alternative ways of providing accurate, reliable, affordable and timely beneficiary data can go a long way towards reducing perceived risk and lower barriers to entry for financial service providers.

Research on the use of Drones vs. Satellite Data in constructing index insurance

<table>
<thead>
<tr>
<th>P U L A</th>
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<tbody>
<tr>
<td><strong>DRONES</strong></td>
</tr>
<tr>
<td>Pros</td>
</tr>
<tr>
<td>Easy to get high volume of data with high precision</td>
</tr>
<tr>
<td>Can provide a field-view of thermal &amp; infrared readings</td>
</tr>
<tr>
<td>Can create models to predict yields at field level – though, so far, only for tightly-controlled commercial farming – no viable models for SHFs to date</td>
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</table>

• A significant lesson learned has been the need to digitise existing MFI data before developing a credit scoring platform.

• Generally, MFIs already possess good quality customer data that could serve as a solid foundation for a data-based solution.
Why is Regulation important for Access to Finance?
Regulation can determine:
• Who can provide which financial services;
• How much risk financial service providers can take on;
• Financial products access requirements (e.g. registration, collateral, etc.);
• How high the transaction costs of financial service provision are; etc.

Regulation as opportunity

Law to permit agency banking enacted in 2016
• SACCOs offering agency banking are mobilising more savings and in turn becoming competitive
• Excise Duty (Amendment) Act 2018, taxing mobile money transactions made mobile money more expensive – except for SACCOs where lower cost of “cashing out” has attracted more customers

Regulation in this case is a zero sum game

Regulation as hindrance

There is no explicit regulation in Tanzania to permit MFIs to operate as banking agents they are in the same regulation bracket as all mobile money providers
• This sets a limit on the size of transactions group loans are more difficult (e.g. deposits have to be split up across days)

Financial innovation often moves faster than regulation
• Bank of Uganda did not provide a no-objection ruling for the project because it was unclear how to regulate this innovation
• A solution could be regulatory “sandboxes” where innovation is allowed to be launched in a closed testing environment
Partnerships

Why are partnerships important for Access to Finance?

- Partnerships play an important role in harnessing different organizations strengths towards a common goal.
- Partners help in either developing the financial solutions (TA partners), marketing and outreach to the target market, providing additional services or value add to beneficiaries etc.

“Partnerships with local agrodealers are crucial for last-mile delivery and building trust with our customers...the key has been aligning incentives and ensuring that agrodealers’ margins are sufficient to while not undermining our business model.

Agrodealers have also reported that working with Apollo results in new business for non-Apollo products as well.

As Apollo expands its crop range, partnerships with 3rd party agricultural companies who can advise on effective extension will be crucial.

“Partners need to make an income. Avocado oil is a small margins business but we need to make sure that partner commissions are fair and realistic.

Alternatively, partnering to combine complementary services can provide “in kind” benefits in terms of securing customer loyalty.”

“At early development stages, its difficult to get complete alignment on objectives and direction. It is actually easier to focus time and efforts if initial stages and core requirements are developed internally.”
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Scaling models

So far, the Fund has identified 3 potential “scaling out” models, based on the portfolio:

1. **Multinationals**
   - A successful model could be replicated by multinationals with similar operations in different countries
   - Most applicable to outgrower models

2. **Regulatory framework**
   - Identify the regulatory framework necessary for scale, and use international fora to encourage other governments to adopt it
   - An external strategy; more suited for an NGO/ lobbying entity

3. **“Special offer”**
   - Set up an access to finance component as a distinguishing feature of an agri operator in a competitive environment
   - E.g. free insurance with Monsanto seed/Pula
   - Key question: “copycat” market entrants will erode profits

**KEY QUESTIONS FOR THE NEXT IMPACT REPORT**

- Which participants can be considered the most rapid “scalers”, in terms of outreach figures?
- Did the “scaling up” occur because of an external event (e.g. regulation being passed and implemented), or was it the result of a considered strategy? (e.g. active customer outreach/ effective marketing, easy customer identification through pre-existing relations?)
- Which of the 3 “scaling out” models above could be adopted by these rapid scalers? What are the preconditions, the risks, and the advantages of each? Are there any other models?