



THE INITIATIVE FOR  
**SMALLHOLDER FINANCE**

[www.globaldevincubator.org/isf](http://www.globaldevincubator.org/isf)

**Direct-to-Farmer Finance**  
Innovation Spaces Playbook  
October 2014

Innovation can help direct-to-farmer finance providers better serve farmers by addressing the challenges associated with direct-to-farmer lending. Existing challenges – such as lending risks and service delivery – are exacerbated at scale; investing in innovation can help direct-to-farmer finance providers scale up to more quickly and effectively meet the vast global demand for smallholder finance.

Through a collaborative research, design, and ideation process involving farmers, donors, finance providers, and more, the Initiative for Smallholder Finance has identified five opportunities for direct-to-farmer finance innovation. Each of the innovation spaces below suggests compelling new ways that direct-to-farmer finance providers can build off current experimentation in the sector to better serve smallholder farmers.

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**1**    **INFIELD EFFICIENCY**

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**2**    **AGRONOMIC LEARNING**

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**3**    **CREDIT ASSESSMENT**

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**4**    **PORTFOLIO DIVERSIFICATION**

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**5**    **INDIVIDUAL MOTIVATION**

Across the business model archetypes described in the Initiative for Smallholder Finance’s [previous briefing note](#), we have seen experimentation underway in several of these innovation spaces as well as in areas adjacent to the direct-to-farmer sector.

This playbook introduces each innovation opportunity, provides a snapshot of current experimentation underway, and suggests concrete examples of new product, service, and strategy ideas. We hope that collectively, these descriptions and ideas will inspire finance providers seeking to innovate.

# 1

INNOVATION OPPORTUNITY

## INFIELD EFFICIENCY

Field- and branch-based product and service delivery are important operational cost drivers of direct-to-farmer finance. These costs become even greater as providers strive to reach more rural customers. Some areas of current experimentation in minimizing delivery costs have included the use of mobile platforms for loan repayments and the testing of alternative branch models.

**We believe that current experimentation in the space can be extended further to decrease costs or increase revenue for finance providers while providing smallholders with richer supporting services.**

## TODAY'S STATE OF PLAY – A SNAPSHOT

### *Mobile loan repayment platforms and alternative branch models*

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**Field- and branch-based delivery are critical drivers of direct-to-farmer finance operational costs.** Regardless of their approach to direct-to-farmer finance, providers are looking to increase farmer-to-field officer ratios and decrease other branch costs. In doing so, finance providers can improve the profitability of their direct-to-farmer finance efforts.

**A key area of experimentation is the use of mobile money platforms to facilitate loan repayment, effectively increasing farmer-to-field officer ratios.** For example, One Acre Fund in Kenya, First MicroFinance Bank Afghanistan, and CARD Bank in Philippines allow farmers to make loan payments through mobile money platforms. Through this model, field officers do not need to physically collect loan repayments from smallholders and can therefore spend less time facilitating payment transactions. This adjustment allows field officers to serve additional clients, increasing farmer-to-field officer ratios.

**Some finance providers are experimenting with alternative branch models that cost less than traditional branch-based models and are more convenient for smallholders.** Various branch-based providers have employed mobile vans to act as branches in rural areas and provide a broad set of financial services to smallholders. This service allows smallholders to open accounts, apply for loans, and pay for loans while also developing relationships with provider staff. When mobile vans from Opportunity International created high demand in rural areas, for example, the organization set up “satellite branch” kiosks using converted shipping containers to better serve smallholders.

## TODAY'S STATE OF PLAY – A SNAPSHOT

### Mobile loan repayment platforms and alternative branch models



Photo credit: Dalberg field research, One Acre Fund farmer



#### One Acre Fund

##### LOAN REPAYMENT USING MOBILE MONEY

*“Our field officers are tasked with a lot: they are expected to conduct all loan related monitoring and repayment activities, in addition to facilitating agronomic training for our farmers. In certain regions, we are piloting mobile loan repayments, where smallholders repay loans through mPesa. This reduces the burden on our field officers.”*

– Arnold, Communications Coordinator



Photo credit: Gates Foundation (flickr)



#### Opportunity International

##### MOBILE VAN BRANCHES

Opportunity International uses mobile vans to reach rural areas, which allows many individuals to access financial services for the first time. Mobile vans are armored trucks with many of the capabilities of a traditional bank branch, enabling farmers to do banking within walking distances of their farms. Due to the popularity of the service, some mobile van stops have been converted into permanent banking structures to meet client demand.

## NEW IDEA: MOBILE MAIZE MILL *Extending rural branch reach and presence through mobile asset leasing*

There are multiple examples of asset leasing solutions targeted to smallholder farmers operating in rural environments, but those trying to reach the most remote customers face greater challenges in managing logistics and costs. This idea combines asset leasing for important equipment with mobile branch financial services to improve smallholder access to both equipment and finance.

### VALUE TO SMALLHOLDER FARMERS

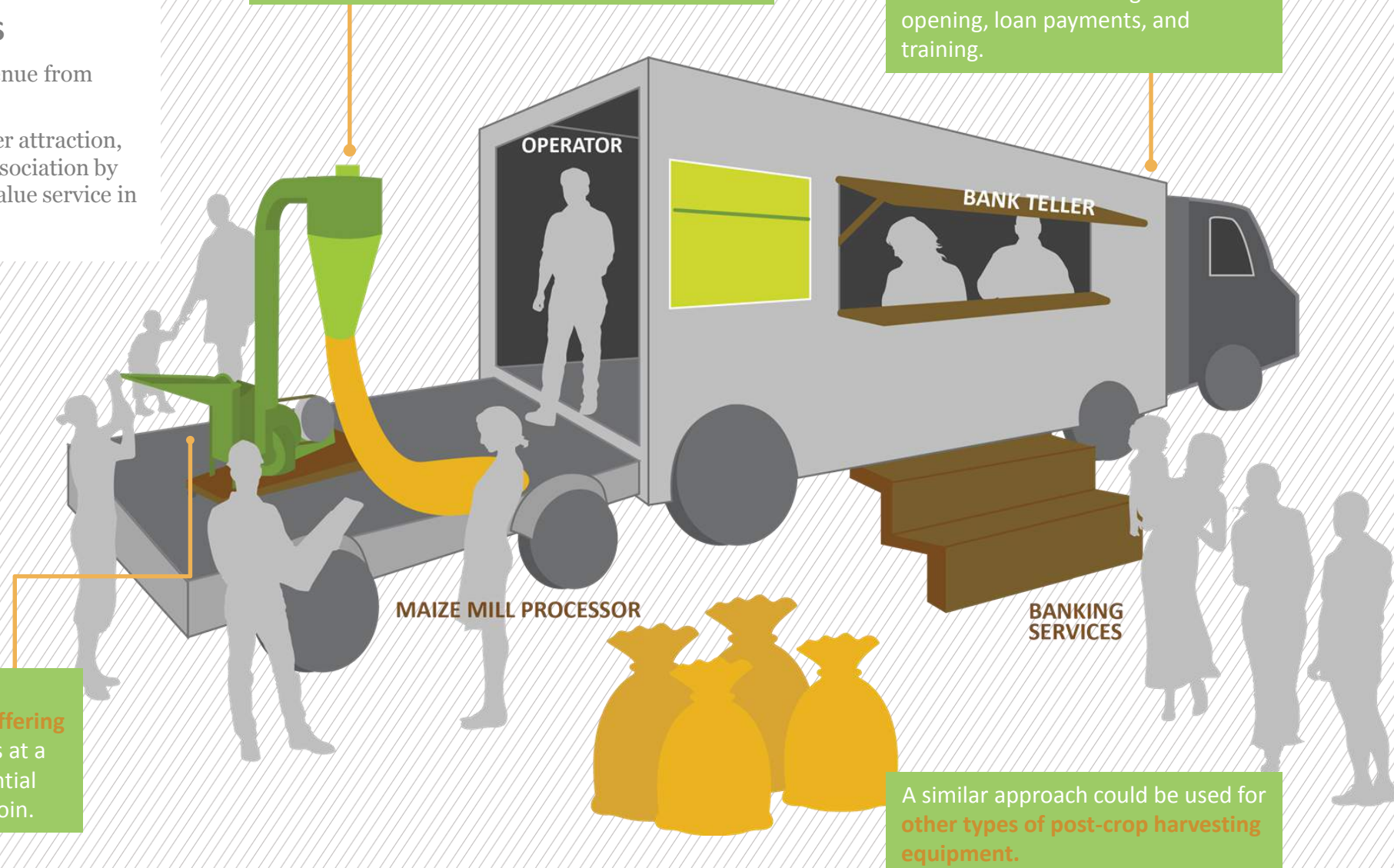
- Access to maize harvest processing equipment that they wouldn't otherwise have, due to price or travel constraints.

### VALUE TO FINANCE PROVIDERS

- Opportunity for additional revenue from equipment leasing.
- Potential for improved customer attraction, retention and positive brand association by offering easy access to a high-value service in rural areas.

Finance providers attach a small maize mill to a mobile van to help farmers with maize harvest processing. An alternate model could involve a partnership with equipment providers who lease the equipment to the finance provider and who are responsible for provision and maintenance.

The van serves as a mobile branch in rural areas, providing a limited set of services including account opening, loan payments, and training.



The attached maize mill is positioned as an additional offering available to current customers at a reduced price or to new potential customers as an incentive to join.

A similar approach could be used for other types of post-crop harvesting equipment.



### FINANCE PROVIDER CAPABILITIES REQUIRED

Mobile vans and supporting infrastructure.

Route networks that allow for effective mill usage as vans make stops along route.

Investment in capability to operate and maintain equipment.



### ADDITIONAL ENABLERS REQUIRED

None.

## NEW IDEA: GROUP LEADER APP

Connecting and empowering farmer group leaders through mobile services

The day-to-day mechanics of managing farmer groups can be time-consuming and cumbersome. There are a handful of technology solutions that streamline operations for larger, more connected farmer coops and informal associations, but similar solutions don't exist for smaller farmer groups. This idea brings technology innovation to smallholder groups, empowering group leaders to be more effective and achieve greater impact.

### FINANCE PROVIDER CAPABILITIES REQUIRED

Continual training for field officers to provide appropriate support to group leaders.

Provision of mobile phones to group leaders.

### ADDITIONAL ENABLERS REQUIRED

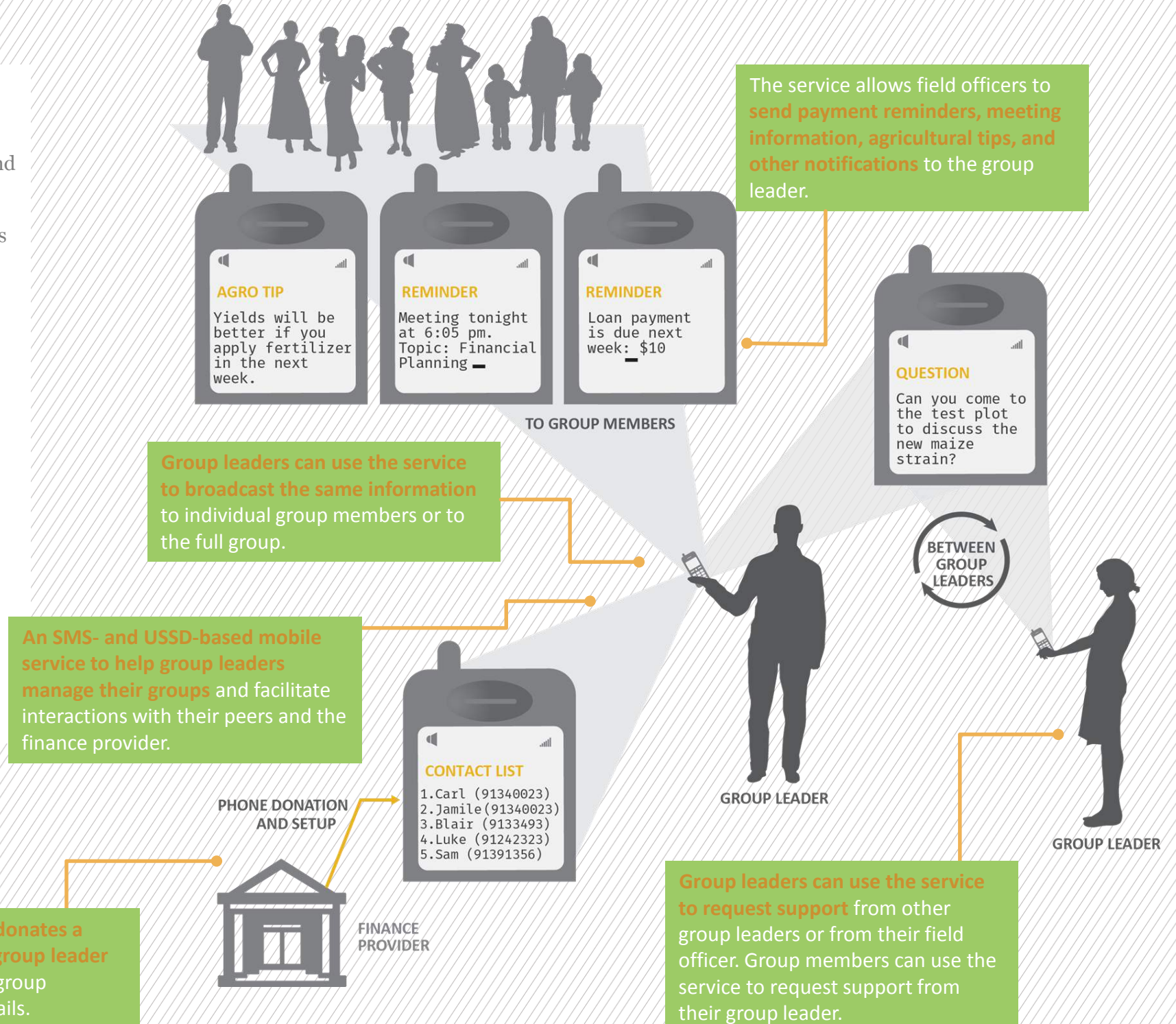
Optional operator partnerships to share costs of device provision and SMS/USDD usage in return for access to potentially new customer base.

#### VALUE TO SMALLHOLDER FARMERS

- Easier communication across the group and with the finance provider, particularly around cumbersome administrative tasks such as payment reminders and meeting notifications, allowing group leaders to focus on higher value activities and supporting services.
- Easier access to peer and finance provider expertise and knowledge-sharing.

#### VALUE TO FINANCE PROVIDERS

- Easier communication with farmer group leaders and members, particularly around cumbersome administrative tasks like payment reminders and meeting notifications, allowing field officers to focus on higher value activities and supporting services.
- Improved standardization of farmer group leader roles, responsibilities, and communication channels.



# 2

INNOVATION OPPORTUNITY

## AGRONOMIC LEARNING

Finance providers broadly recognize training to promote agricultural best practice and improve yields as an important supporting service for farmers that complements finance provision. Various direct-to-farmer finance organizations have been experimenting with technology-assisted training models as a means to reduce training costs and increase control across disparate training providers.

**We believe there is an opportunity for more innovation in farmer training in the direct-to-farmer finance context; providers can draw inspiration from different, non-smallholder agronomic contexts and broader educational practices to promote improved learning and continuous knowledge-sharing amongst farmers.**



## TODAY'S STATE OF PLAY – A SNAPSHOT

### *Technology-assisted training for farmers*

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**Direct-to-farmer finance providers broadly recognize the importance of high-quality agronomic training for smallholder borrowers to mitigate production risks.** However, for finance providers who deploy these services via internal staff, the cost of providing these agronomic support services often creates challenges to scale and sustainability. For finance providers who outsource these services, scaling potential is limited by partner and/or community capacity to provide these services.

**Some finance providers are experimenting with new tools to help their staff provide agronomic training to farmers.** These approaches can help providers reduce their long-term dependence on partners. For example, Juhudi Kilimo partnered with IDEO to produce training videos that field officers can share with farmers on tablets. These approaches may also help lower the cost of the training providers deliver via their staff, potentially reducing their reliance on philanthropic capital as they scale.

**There are also a range of mobile training resources targeted directly at farmers, although finance providers typically have not leveraged these specifically.** Examples of mobile-based training platforms in Kenya include SMS tips from iCow and toll-free hotlines for common agronomic questions from Airtel Kilimo. Finance providers could consider helping their clients access these services, as a means to improve farmer access to agronomic best practices. However, studies highlight that these mobile-enabled training platforms cannot completely replace the training that field officers deliver to farmers, which also involves building trust and relationships.

## TODAY'S STATE OF PLAY – A SNAPSHOT

### Technology-assisted training for farmers



Photo credit: David Picciao, Kiva

### JUHUDI KILIMO

#### VIDEO TRAINING BY TABLET

*“All of our loans officers have been equipped with Samsung tablets. One of the things we are experimenting with is showing training videos and training presentations on the tablets that are very specific and technical to agriculture. That way our loan officers don’t have to be experts and they can just show the video and get people to understand a bit more about how to take care of their animals.”*

– Nat Robinson, CEO as quoted in *How We Made It In Africa*



Photo credit: iCow



Safaricom iCow

#### AGRICULTURAL TIPS BY SMS

Safaricom’s pushed information service in Kenya delivers SMS tips to communicate best practices in cow and chicken rearing, including those related to health, diet, nutrition, illness and disease. Tips are customized to the types of livestock that customers register and each SMS costs 3 Kenyan shillings. Other value-added services include a livestock calendar, immunization calendar, and a search engine for veterinarians or artificial inseminators.

## NEW IDEA: ADAPTIVE LEARNING PLATFORM

*Content and delivery to support individual learning styles*

Current training services rely on relatively standard training content that covers agronomic and financial basics, delivered via conventional formats such as group meetings or SMS. This idea expands the role of the field officer to an educator, allowing him or her to draw on a robust content platform, multiple delivery technologies, and diverse training formats to enable higher quality learning.

### VALUE TO SMALLHOLDER FARMERS

- Training covers wide range of topics that have the potential to improve farm performance and financial planning.
- Higher quality learning due to training in formats that work best for the farmer given their individual learning styles and life constraints.

### VALUE TO FINANCE PROVIDERS

- Reduced cost of agronomic training and greater control over agronomic training content.
- Stronger farmer-field officer relationships from greater focus on improving farmer knowledge and higher impact touch points.
- Reduced risk of smallholder default due to farmers' improved agronomic and financial educations.



### FINANCE PROVIDER CAPABILITIES REQUIRED

Continual training for field officers to provide appropriate training to farmers.

Strong understanding of benefits and challenges of different training formats and preferences of farmers.



### ADDITIONAL ENABLERS REQUIRED

Partnerships for content provision, aggregation, and distribution.

Technology platform supporting connected and offline usage.

Content sourced from diverse providers including NGOs, universities, and others that is provided in a variety of formats including shorter- and longer-form, traditional, and interactive.



Field officers use content modules selectively – through mobile, tablet and printed forms; in personalized 1-on-1 sessions, group contexts and classroom settings; and in shorter and longer formats.

### GAMIFIED CONTENT

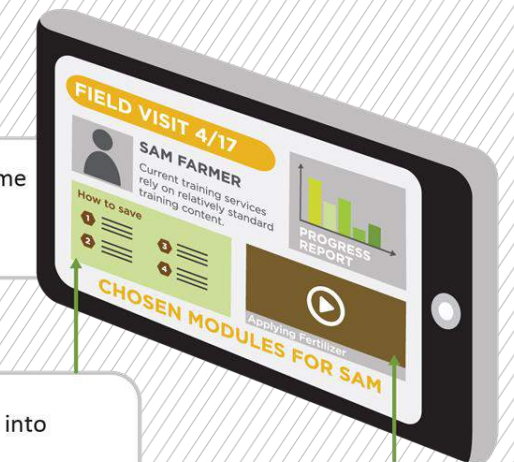
**OXFAM:** Finance Bingo Game

### STEP BY STEP GUIDES

**BRAC:** Turn your skills into a business  
**GRAMEEN:** Medicine Schedule for cow



A content platform integrating educational content related to agronomics, financial literacy, entrepreneurship, general education, and other areas of need.



### VIDEOS

**SYNGENTA:** Identifying good seed  
**OPPORTUNITY BANK:** How to repay a loan? What is insurance?

Field officers are trained to deliver the most appropriate content modules in the formats that are best suited to farmers' learning preferences and lifestyles.

## NEW IDEA: FARMER MENTOR INCENTIVES

Current training services rely on finance providers and their partners, but overlook the deep knowledge embedded within communities themselves. This idea taps into the experience and assets of larger, more established farmers by offering them better terms on their own loans in exchange for providing continuous knowledge and support to other farmers. It extends the knowledge-sharing benefits of nucleus farming to smallholders without tight value chain relationships.

### VALUE TO SMALLHOLDER FARMERS

- Access to informal knowledge-sharing that has the potential to improve farm performance.
- Access to assets that may otherwise not be accessible at all, at a reduced fee.

### VALUE TO FINANCE PROVIDERS

- Reduced risk of smallholder default, due to smallholders' improved education and farm performance through the support of larger farmers.
- Potential for conversion of more large and small farm customers as larger farms are incentivized to support smaller farms.



#### FINANCE PROVIDER CAPABILITIES REQUIRED

Identification and participation of viable larger farms in the area.

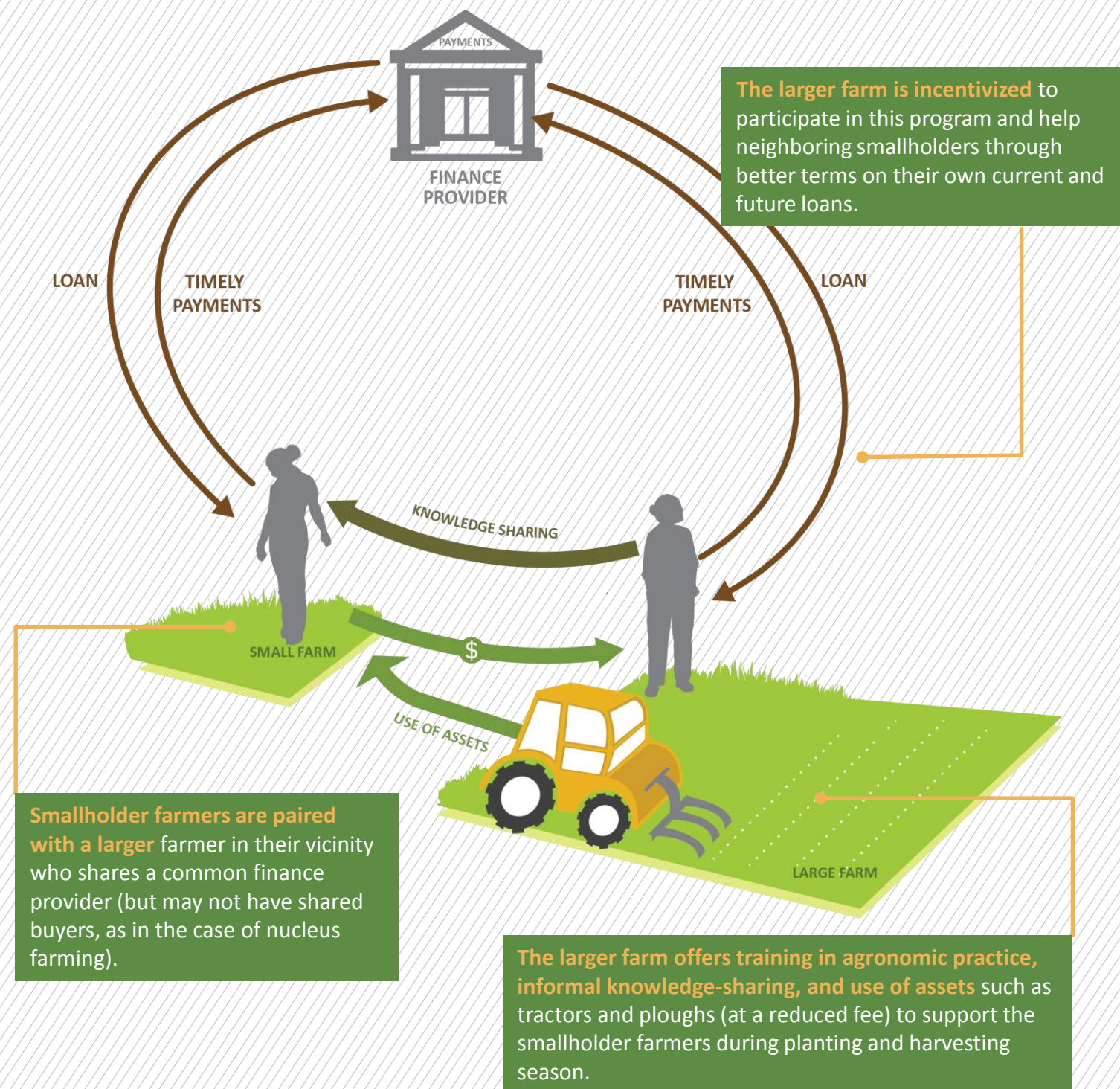
Compelling and differentiated product offering and service infrastructure for larger farms.



#### ADDITIONAL ENABLERS REQUIRED

Appropriate mix of large and small farms across region to allow asset sharing without transportation issues.

*Knowledge, assets, and support from established practitioners*



# 3

INNOVATION OPPORTUNITY

## CREDIT ASSESSMENT

Smallholders typically lack credit history and collateral, making it difficult for direct-to-farmer finance providers to conduct credit assessments. Most experimentation today harnesses different data sources – some agricultural and some not – to better inform credit assessments of farmers.

**Building on the current experimentation in the space, we believe there are opportunities to obtain meaningful data from new data sources to build more comprehensive, richer, and smarter smallholder profiles to further reduce the risk of smallholder lending.**

## TODAY'S STATE OF PLAY – A SNAPSHOT

### *Informing credit assessment through alternative data sources*

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**Due to smallholders' typical lack of credit history and collateral, credit assessment is often challenging.**

Assessment is particularly challenging for branch-based finance providers, who often lack physical proximity to, and close relationships with, smallholders.

**A range of organizations are leveraging non-agricultural data to increase the accuracy and decrease the costs of credit assessment in data-poor environments.** The Entrepreneurial Finance Lab (EFL) uses psychometric tests to evaluate behavioral, attitudinal, and technical dimensions to predict repayment likelihood. Additionally, First Access has created a tool that uses mobile phone usage behavior to assess default likelihood. Both organizations cite success in helping partner lending institutions reduce lending costs and/or rates of default. However, most experimentation thus far has been spearheaded by players seeking to improve access to finance for base-of-the-pyramid populations in general; only a few direct-to-farmer finance providers have piloted these approaches.

**In addition, some finance providers with banking infrastructure are collecting agriculture-specific data to inform their smallholder credit assessments.** HDFC Bank and Opportunity International use propriety systems that incorporate GPS and CRM to profile farm households, assess growth potential, and evaluate repayment capability. Additionally, Agricultural Loan Evaluation System (ALES), a tool developed by the Frankfurt School of Management, helps providers understand smallholders' agronomic quality and assess their financial needs and repayment capability.

**Outside of the direct-to-farmer sector, platforms focused on smallholders in tight value chains – characterized by strong and consistent relationships between smallholders and buyers – aggregate disparate data sources for credit assessment.** Supply chain management platforms like Farm Force, mFarms and Acopio aggregate smallholder data that is used for smallholder management, information transparency, and credit assessment.

## TODAY'S STATE OF PLAY – A SNAPSHOT

### Informing credit assessment through alternative data sources

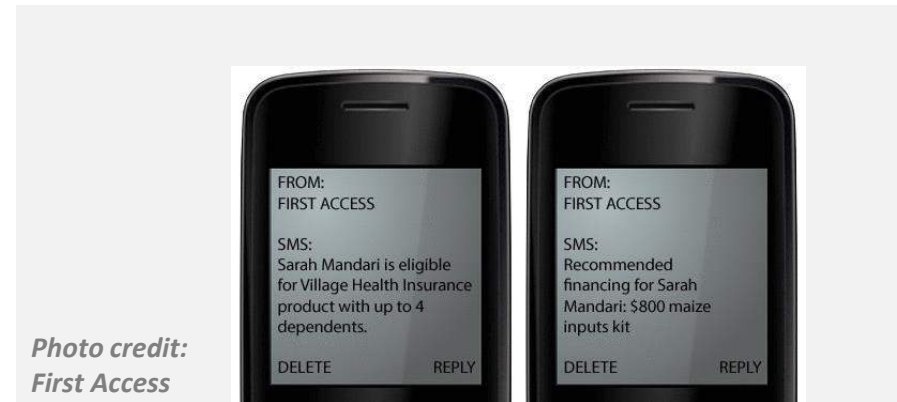


Photo credit: First Access

#### first access First Access

##### MOBILE BEHAVIORS FOR CREDIT ASSESSMENT

Data analytics company First Access, a for-profit social enterprise, predicts repayment risk for consumers who have never had a bank account or a credit score, using their prepaid mobile data. The organization has developed a mobile-based tool that combines demographic, geographic, financial, and social data from mobile phones and other sources with real-time data to provide financial institutions with instant risk scoring.



Photo credit: Wall Street Journal

#### HDFC BANK

##### INTEGRATING DATA FOR CREDIT ASSESSMENT

HDFC's agriculture lending model is based on a credit feasibility study using various smallholder-related data points. The study takes into account smallholder land holding, crop selection, input cost, and the strength of the underlying commodities to generate cash flow estimates. In addition, the study also considers past client data on experience level and extension service use. All of these characteristics inform HDFC's credit decision-making processes.

## NEW IDEA: MY FARM, MY DATA

Empowering farmers to collect and manage their own data

Today's credit assessment tools for agricultural financing are experimenting with a wide range of potential information sets, but most of this data originates from finance providers or third parties. A few solutions empower farmers to provide their own data using mobile apps that mainly focus on collecting cash flow data. This idea relies on and incentivizes farmers who meet a basic loan qualification threshold to provide more and better data on their own farms' agronomic and financial performance, to improve credit assessment.

### VALUE TO SMALLHOLDER FARMERS

- Access to loans without a credit history.
- Access to improved loan terms through their own data collection actions.
- Feedback loops from managing own data have potential to improve farm performance.

### VALUE TO FINANCE PROVIDERS

- Lower risk through better credit assessment.
- Reduced cost of data collection for credit assessment.



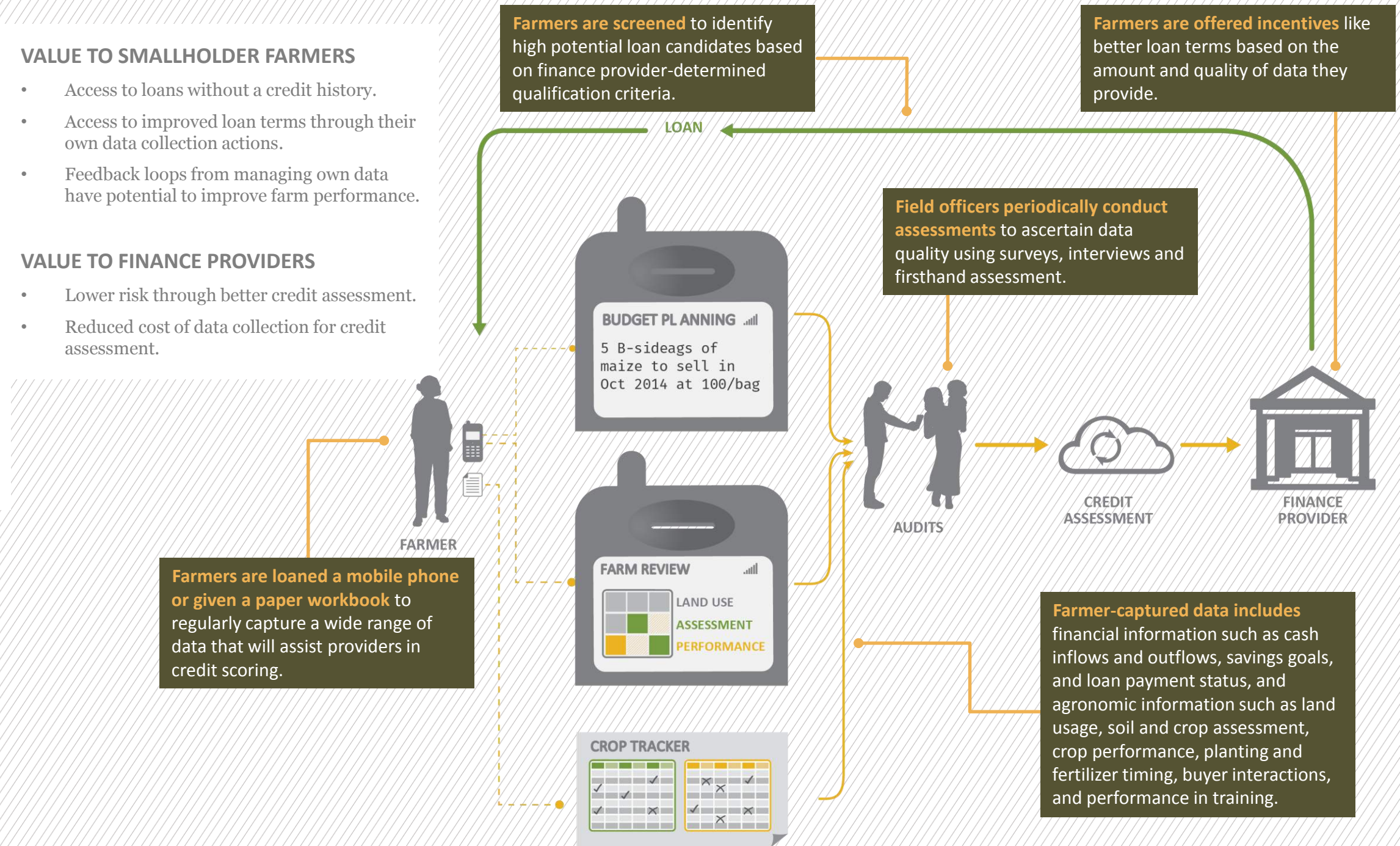
#### FINANCE PROVIDER CAPABILITIES REQUIRED

Technology platforms and processes to support regular data collection from farmers.  
Provision of mobile phones to farmers.  
Credit assessment model accounting for farmer-provided data.



#### ADDITIONAL ENABLERS REQUIRED

Partnerships to create credit scoring plugins that integrate into existing credit assessment tools.





## NEW IDEA: FEDERATED DATA HUB

Most finance providers do not formally share data with other providers or organizations. This idea promotes sharing amongst finance providers and other actors – extension workers, market providers, input providers, NGOs, and governments – in the interest of improving credit assessment. It furthermore contributes to a culture of communal problem-solving and broader data-based decision-making.

### VALUE TO SMALLHOLDER FARMERS

- Access to loans without a credit history.
- Access to improved loan terms.

### VALUE TO FINANCE PROVIDERS

- Lower risk through better credit assessment.
- Reduced cost of data collection for credit assessment.



### FINANCE PROVIDER CAPABILITIES REQUIRED

Technology platforms and processes to support regular data-sharing into the platform.

Credit assessment model accounting for data from other providers.



### ADDITIONAL ENABLERS REQUIRED

A well-defined and -governed consortium with the right set of member organizations who can contribute the initial data sets and incentivize broader participation.

A safe and secure hosted database system.

Training for member organizations to learn how to leverage data for their current challenges and concerns.

## Integrating diverse information sets across organizations

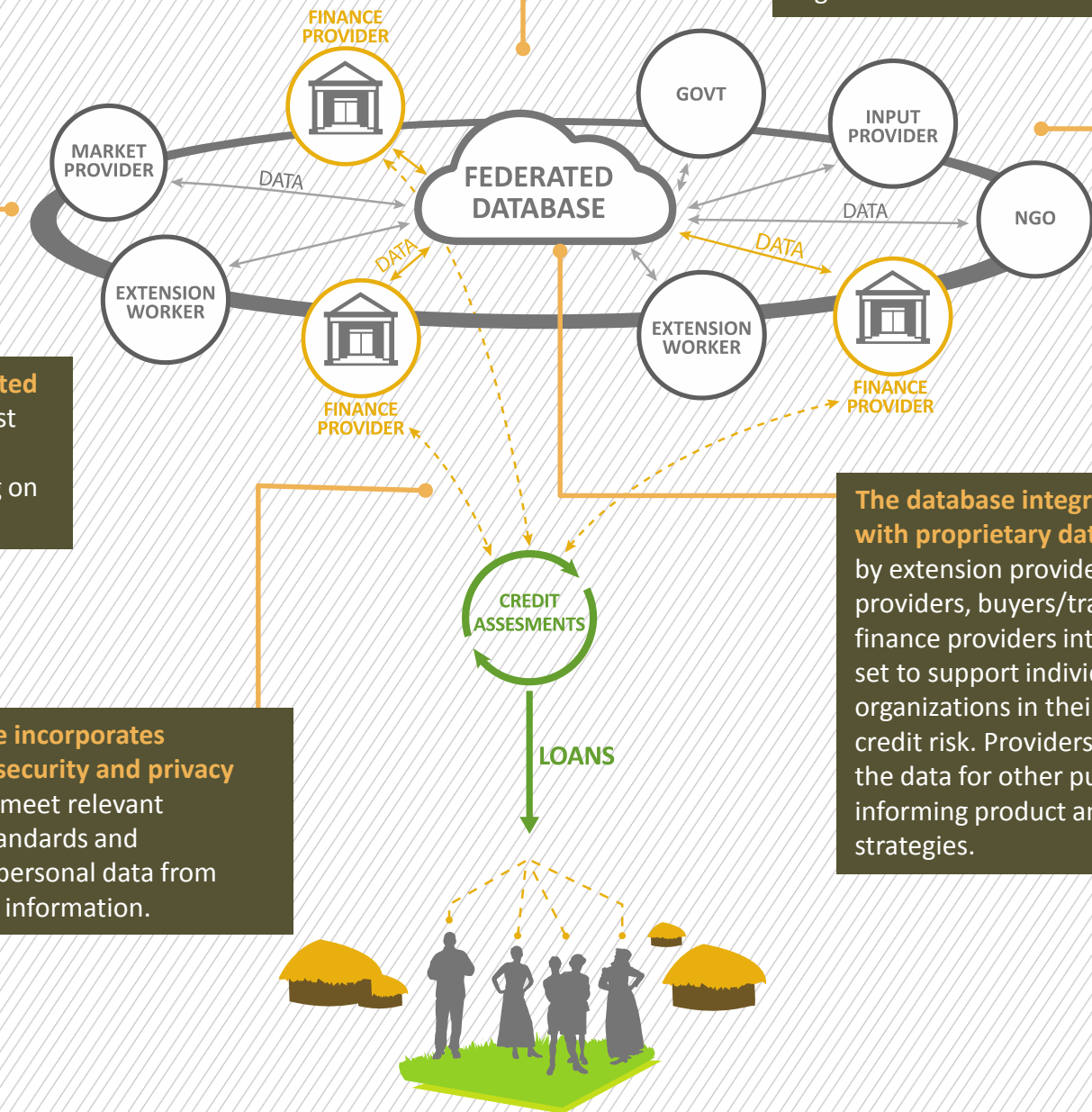
A federated database (a virtual integration of multiple databases and data streams) integrating crop, market, and agronomic data into an accessible platform for all providers in a region.

The database is managed by a consortium of NGOs and finance providers (with possible government support). While it is open to all finance providers, the system would offer incentives such as priority access, and access to detailed data sets, based on an organization's level of contribution.

The database can be implemented at varying levels, but would most likely start at a regional (sub-national) or national, depending on the consortium of stakeholders.

The database incorporates appropriate security and privacy measures to meet relevant regulatory standards and disassociate personal data from performance information.

The database integrates public data with proprietary data contributed by extension providers, input providers, buyers/traders, and finance providers into a larger data set to support individual organizations in their assessment of credit risk. Providers may also use the data for other purposes such as informing product and service strategies.



# 4

INNOVATION OPPORTUNITY

## PORTFOLIO DIVERSIFICATION

Finance providers with portfolios heavily concentrated in agricultural lending face significant crop and price risk, as smallholder activity is often vulnerable to systematic agricultural shocks such as weather and crop disease. To overcome these challenges, several finance providers encourage crop diversification and a broader mix of agricultural activities, even at smallholder farm scales.

**While this experimentation in diversifying portfolios is important, it is largely limited to agricultural diversification thus far. We believe finance providers have the opportunity to further diversify their portfolios by supporting a wider range of farmer activities and relationships, at the individual farmer level and more broadly across their loan portfolio.**

### *Portfolio diversification through agricultural income diversification*

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**Smallholders face a range of agricultural risks which in turn create significant risk for provider portfolios that are heavily concentrated in agricultural lending.** These risks include weather-related shocks such as flooding and drought, and crop-specific risks like disease.

**A handful of finance providers proactively promote crop diversification to overcome crop-specific risks.** For example, One Acre Fund in Kenya and Nuru International in Kenya promote crop diversification when distributing inputs. Rather than distributing only maize seed to farmers, both organizations started including seeds for millet, sorghum, and other crops in their in-kind loan packages after a maize disease struck in 2012. While this approach overcomes crop-specific risks, however, it does not safeguard against weather-related shocks.

**Some organizations are taking diversification further, promoting different agricultural activities and supporting new farmer segments.** For example, Komaza promotes tree farming and Juhudi Kilimo encourages livestock farming. Proximity Designs reaches a wider base of farmers by supporting horticultural and small livestock activities and is experimenting with broader diversification outside of agriculture. These activities are either not seasonal or center on different seasons than agriculture, so they can both increase and smooth smallholder incomes, while also decreasing the risks associated with flooding or drought.

## TODAY'S STATE OF PLAY – A SNAPSHOT

### Portfolio diversification through agricultural income diversification



#### ENCOURAGING CROP DIVERSIFICATION

To promote crop diversification, Nuru International offers farmers an input package including brown sorghum, finger millet, maize, and Grevillea trees. To encourage smallholders to abandon monocultures and diversify their farms, Nuru conducts extensive training on the benefits and techniques of diversifying crops, uses demonstration plots, and engages with community leaders to ensure that uptake of their diversified crop package is high.



#### EXPERIMENTATION IN PORTFOLIO DIVERSIFICATION

From an original focus on lending to rice farmers, Proximity Designs has diversified its portfolio in Myanmar through continuous research, design and experimentation. They have extended into new regions, financed additional crops including horticulture, and are providing small livestock loans. More recently, they are experimenting with loans for migrant worker families and entrepreneurs who bring in non-agricultural income, further de-risking their portfolio.

## NEW IDEA: THE “4-HOUR FARMER”

*Encouraging efficiency and entrepreneurialism to enable new income streams*

Many farmers are involved in activities outside of farming, but most direct-to-farmer finance providers don't play an active role in promoting these activities. This idea bridges that gap, actively encouraging both farming productivity improvements and other non-farming, income-generating activities as a means to improve farmers' overall incomes and relieve agricultural burdens.

### VALUE TO SMALLHOLDER FARMERS

- Potential to achieve same level of farm performance with less time invested.
- Potential to increase overall income through new entrepreneurial ventures and smooth income through more income streams, thereby reducing the negative effects of agricultural shocks.

### VALUE TO FINANCE PROVIDERS

- Promoting multiple income sources reduces the risk of default for loans that are solely dependent on agriculture.
- Encouraging entrepreneurialism may also lead to use of other financial products such as savings accounts and non-agricultural loans.



#### FINANCE PROVIDER CAPABILITIES REQUIRED

Development of assessment protocol and training curriculum.

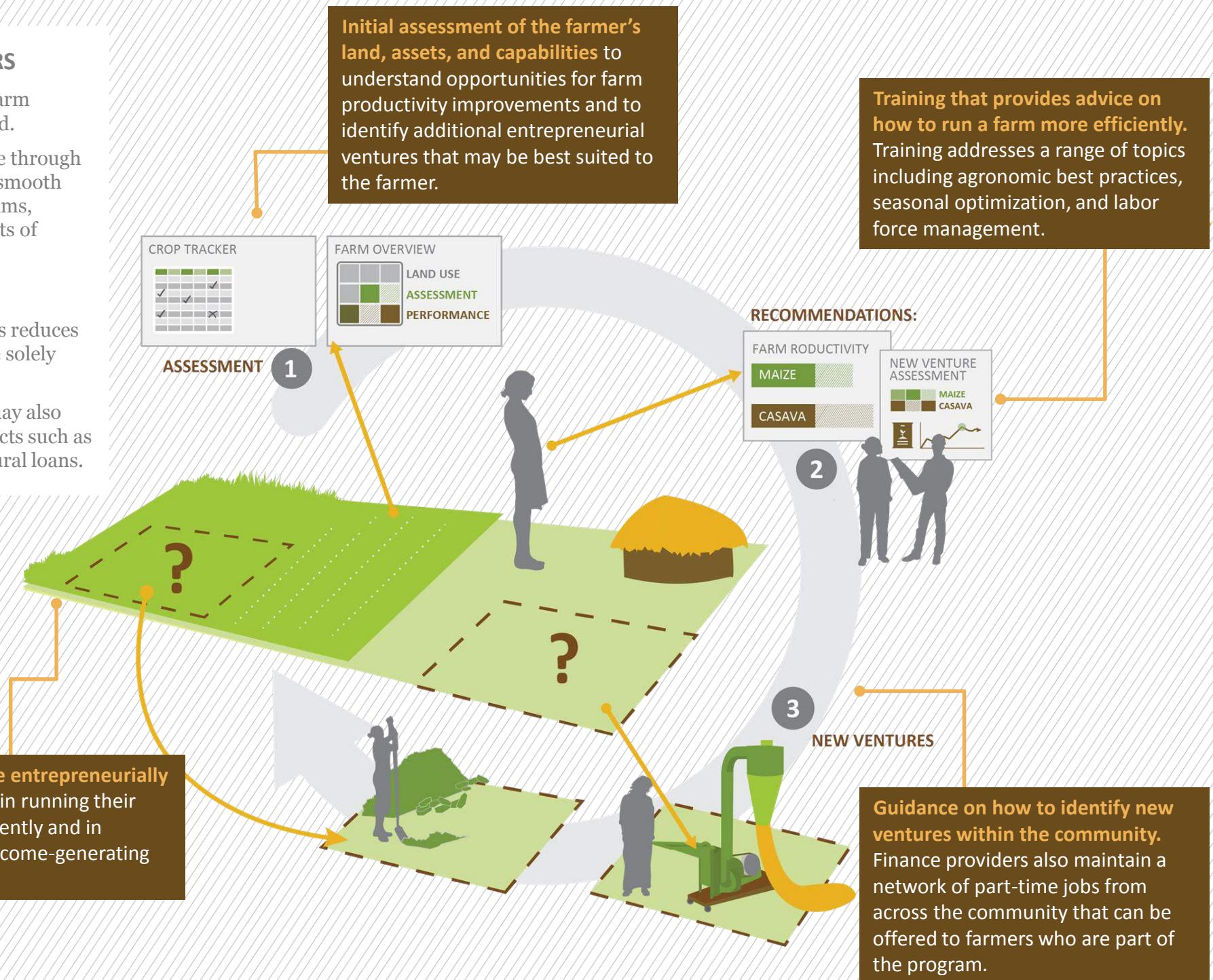
Continual training for field officers to provide appropriate support to farmers.

Strong understanding of benefits and challenges of promoting non-agricultural activities.



#### ADDITIONAL ENABLERS REQUIRED

Identification and curation of viable business opportunities in the community.



## NEW IDEA: FAMILY GUARANTEE

*Leveraging family ties to diversify credit portfolios*

Finance providers currently construct portfolios around groups based on geographic proximity, using this structure as a way to reduce risk. This idea approaches portfolio diversification by defining groups not by proximity to one another, but rather by their strong family ties to one another. This system would diversify the finance provider's portfolio through diversified income streams of its groups' members.

### VALUE TO SMALLHOLDER FARMERS

- Greater confidence that the group will not default on the loan, as the group members are all trusted family members or from close related families.

### VALUE TO FINANCE PROVIDERS

- Loan risk is spread across the many activities that family members are involved with – not just farming – to decrease risk of default due to systematic agriculture-related events.
- Potential that group peer pressure mechanism may be more effective in a family context, reducing risk of loan default.

A group loan system in which groups are defined based on large extended families; some members farm, while others have income streams from different lines of work in different locations.

All loans must be fully paid back within a fixed time period (e.g., 6 months) and all individuals must make regular repayments at the same time (e.g., monthly), but individual repayment amounts vary based on each individual's unique circumstances.

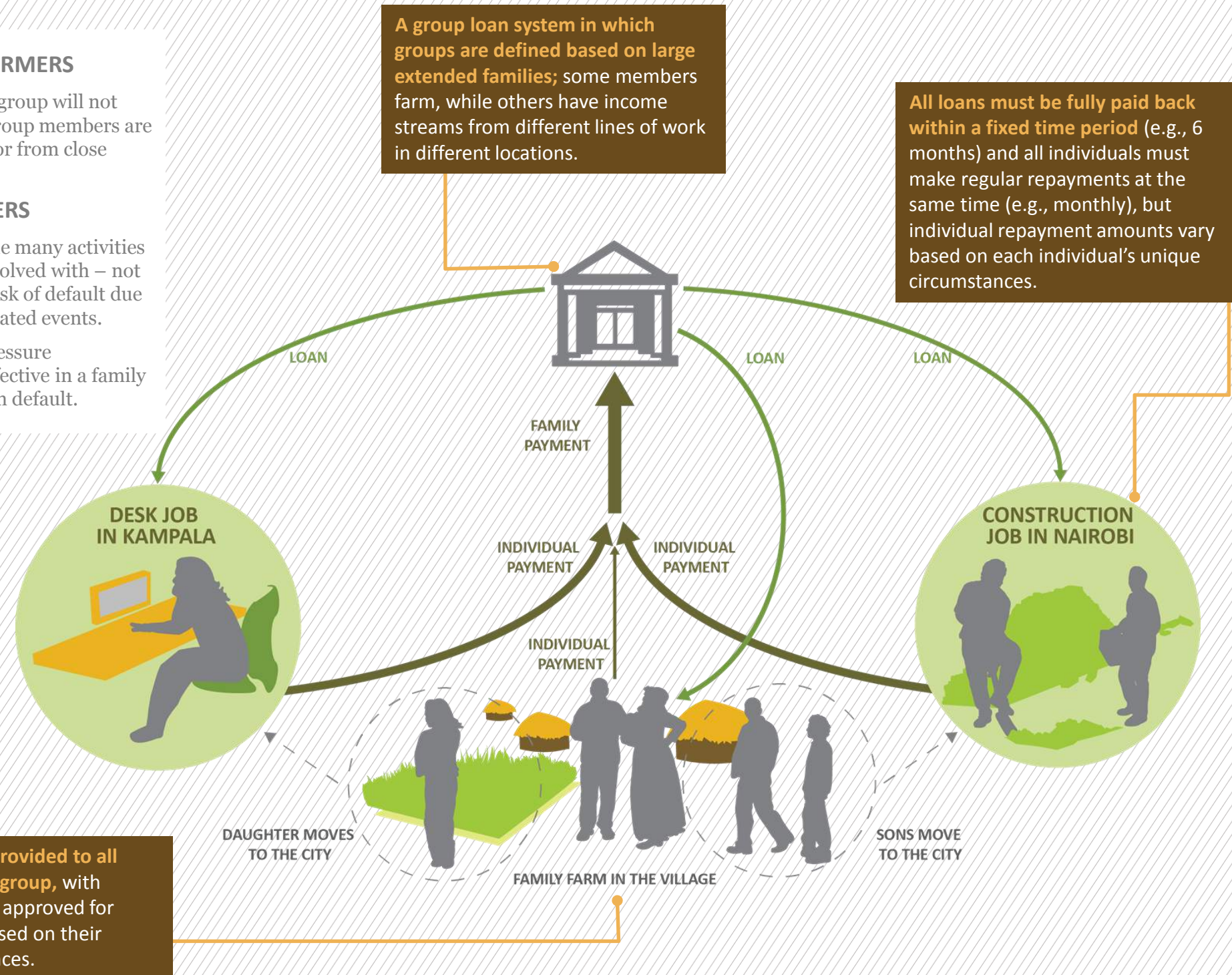
### FINANCE PROVIDER CAPABILITIES REQUIRED

Operations across locations to support the physically dispersed group.

Provision for communication across group members to coordinate repayments.

### ADDITIONAL ENABLERS REQUIRED

None.



# 5

INNOVATION OPPORTUNITY

## INDIVIDUAL MOTIVATION

Finance providers often rely on group lending models to mitigate the risk of smallholder loan default. While group lending models have generally been successful, finance providers still face challenges as they scale and target broader segments of smallholders. Individual lending is an alternative approach that is prevalent but associated with different challenges because individuals may lack the motivation to repay loans in a timely fashion without incentives or pressure.

**We believe that both individual and group lending are important to scaling direct-to-farmer finance. To that end, we believe there is an opportunity for innovation in how providers can motivate responsible repayment behavior among smallholder clients.**

### *Light experimentation in individual motivation solutions*

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**Despite the appeal of group lending as a means to manage default risk, it is not without challenges.** Group guarantees encourage loan repayment, but also limit individual loan customization. They can create environments in which defaults become contagious, and occasionally can lead to negative community dynamics. Yet the alternative – individual lending – is perceived as more risky than group lending. Despite its prevalence, individual lending actually witnesses higher default rates in comparison to group lending. Mechanisms to motivate responsible repayment behavior are key to improving success rates within this individual lending model.

**One approach to improving motivation is the use of incentives – in particular, financial incentives.** In non-agricultural contexts, for example, it is common for providers to offer responsible borrowers cash-back and better terms on future loans. Some providers also require smallholders to contribute savings before they may receive a loan. These mandatory savings accounts serve as a form of partial collateral for providers in case of smallholder default.

**A more experimental approach to individual incentives involves simulating the effects of group lending – without a group.** For example, in social referral systems known as agent-intermediated lending models, a trusted agent recommends borrowers. Shree Sanchari, a Kolkata-based MFI focused on agricultural lending, has attempted to implement a number of variations on this model.

**Another area of experimentation in motivational solutions is the use of mobile technology to remind borrowers about their payments.** So far, mobile notifications services have produced significant positive effects on repayment rates. And more innovation is underway: Green Bank in the Philippines, for example, found that personalized notifications were even more effective than generic reminders.



### Light experimentation in individual motivation solutions



Photo credit: Livemint / Wall Street Journal

#### Shree Sanchari

##### AGENT-INTERMEDIATED INDIVIDUAL LENDING

Shree Sanchari provides agricultural loans with 4-month repayment cycles, starting at 2000 Indian Rupees (\$33) and increasing with timely repayment. The organization has piloted using agents who are traders as well as agents recommended by village councils. Agents each recommend 30 potential borrowers who own less than 1.5 acres of land and receive commissions of 75% of all interest payments. Agents are also required to deposit 50 Indian Rupees (<\$1) per borrower and have opportunities for bonuses.



Photo credit: Wikimapia



#### Green Bank

##### PERSONALIZED SMS REMINDERS

A study by Innovations for Poverty Action for Green Bank in the Philippines found that personalization on loan repayment reminders made an important difference in repayment rates. Using customers' names in the message was more effective than standard reminders. Moreover, using loan officers' names as the source of the reminder message was even more effective.

## NEW IDEA: SCHOOL FEE INCENTIVE FUND

*Incentivizing individual loans through school fee assistance*

Finance providers do not currently look to non-agricultural influences in farmers' lives as a way to incentivize agricultural loan application and repayment. This idea directly connects the two most important aspects of farmers' lives – their farm and their children's education – to promote more and better usage of agricultural loans.

### VALUE TO SMALLHOLDER FARMERS

- Assistance in paying for school fees, which is often described as the greatest expense and hardship smallholder farmers routinely face.

### VALUE TO FINANCE PROVIDERS

- Reduced risk of smallholder default due to incentive system that associates repayment with one of the most important expenses in farmers' lives.
- Potential for new customer acquisition due to incentive system that associates a new loan with one of the most important expenses in farmers' lives.
- Potential for bringing the finance provider into other aspects of farmers' financial lives through other products and services.



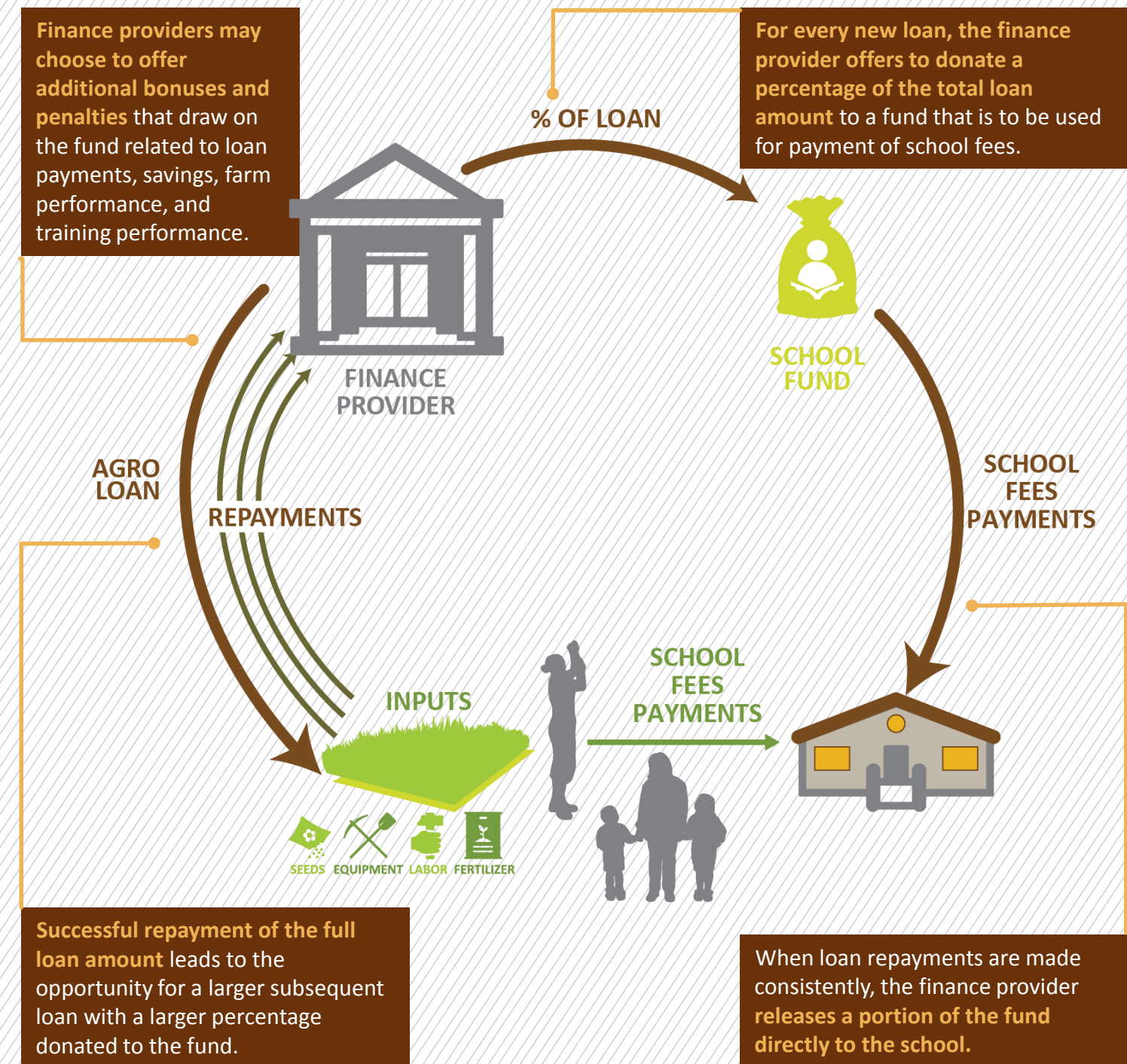
### FINANCE PROVIDER CAPABILITIES REQUIRED

- Credit assessment protocol for structuring school fee fund.
- Relationships with schools to support direct payment.



### ADDITIONAL ENABLERS REQUIRED

None.



## NEW IDEA: COMMUNITY CONTRIBUTIONS *Motivating individuals to borrow through community bulk purchasing*

Finance providers do not currently take full advantage of broader community dynamics – the relationships, influences, and pressures at the level of the village or district – as a way to incentivize agricultural loan application and repayment. This idea uses community-wide pressure and the reduced prices of community-procured products and services to promote usage of individual agricultural loans.

### VALUE TO SMALLHOLDER FARMERS

- Access to important products and services at reduced prices.

### VALUE TO FINANCE PROVIDERS

- Reduced risk of smallholder default due to incentive system that associates repayment with availability of key products and services at reduced prices.
- Potential for new customer acquisition due to incentive system that associates a new loan with communal action.
- Potential to increase customer familiarity with credit.
- Potential for providers to impact entire community through provision of bulk products and services.



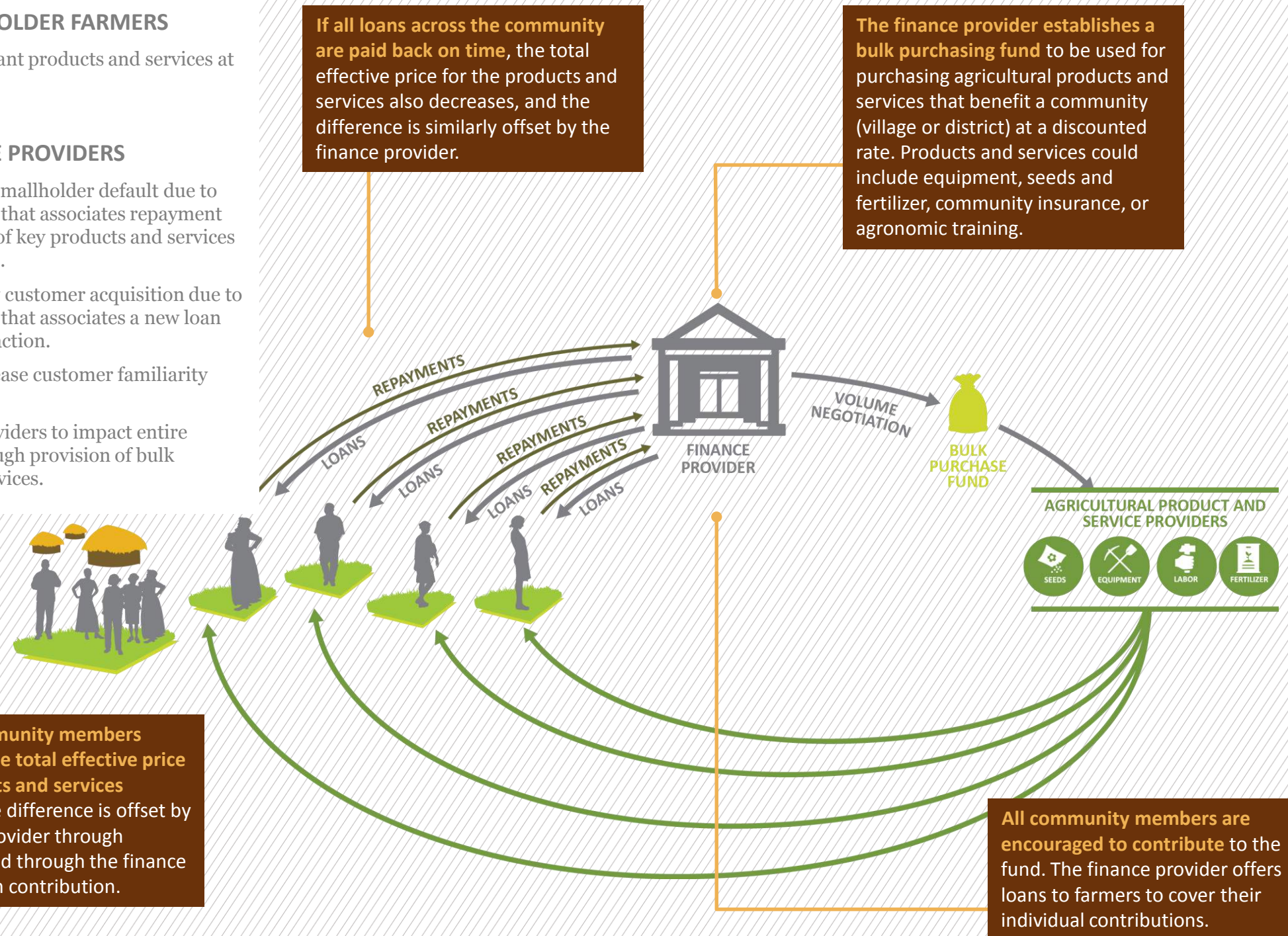
### FINANCE PROVIDER CAPABILITIES REQUIRED

Strong understanding of community dynamics and strong community relationships to encourage broad participation in the program.



### ADDITIONAL ENABLERS REQUIRED

Strong relationships with product and service providers to negotiate bulk purchases.



As more community members participate, the total effective price of the products and services decreases; the difference is offset by the finance provider through negotiation and through the finance provider's own contribution.

All community members are encouraged to contribute to the fund. The finance provider offers loans to farmers to cover their individual contributions.

Our journey down the direct-to-farmer finance pathway has taken us from broad assessments of global best practices to evaluation of specific business models, and from immersive research in East Africa to collaborative ideation sessions with providers, NGOs, and funders.

We've landed on a series of innovation opportunities and new product and service ideas that we hope will help others continue this journey towards funding, planning, and operationalization.

Our goal is turn ideas that have the potential for meaningful, sustainable impact into reality. To do so, we need the commitment of multiple parties.

**Funders should invest in innovation.** New product and service innovations require finance providers to take risks they may be unaccustomed to taking. Funders should encourage finance providers by targeting their investments toward more innovative initiatives.

**Finance providers should commit to experimentation.** Successful innovation requires management of a portfolio of initiatives, some of which should be more experimental than others. Finance providers should actively invest in experimentation across their strategic plan and product and service portfolio.

**Funders and finance providers must be willing to share knowledge.** The pursuit of innovation and experimentation should be made in the spirit of openness. Sharing data, insights, successes and failures will allow all parties to improve their offerings achieve greater impact.

## APPENDIX: Design Lab Methodology

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Our design lab methodology builds on the Initiative for Smallholder Finance’s previous [direct-to-farmer finance research](#). Through a design lab, we used immersive and ethnographic research methods to explore the needs, behaviors, and motivations of smallholders in two East African markets. From this research, we synthesized five personas – Community Activators, Rising Hustlers, Family Pillars, Burdened Breadwinners, and Fragile Loners – who helped us segment the target smallholder farmer market from a behavioral perspective and inspire new solutions.



We then convened 20 Initiative for Smallholder Farmer stakeholders (from funders to finance providers to technical assistance providers) at a two-day workshop in Nairobi. Using business model archetypes, personas, and artifacts from the field as prompts, we collaboratively envisioned the ideal direct-to-farmer finance ecosystem, generated new product, service, and strategy ideas, and suggested new business models with the potential to scale. After the workshop, we mined this treasure trove of insights to formulate the innovation opportunities and new ideas described in this playbook.

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## ABOUT THE INITIATIVE FOR SMALLHOLDER FINANCE

The Initiative for Smallholder Finance is a multi-donor initiative hosted by the Global Development Incubator to build research and development infrastructure in the smallholder finance industry and make progress toward filling the gap in financing through targeted product development, piloting, and partnerships.

For the original report that led to the creation of the Initiative for Smallholder Finance, see [Catalyzing Smallholder Agricultural Finance](#) (2012).



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