

# Accelerating Access to Finance for Women Smallholder Farmers in Zambia

Human Centered Design (HCD) Research, August 2018

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# Context || AFA conducted research to identify opportunities for delivering financial and non-financial services to women smallholder farmers

## CHALLENGES

- Women smallholders in Zambia face a myriad of challenges, including but not limited to: **lack of access to finance, lack of inputs, poor agronomy skills resulting in low productivity, and lack of access to high value markets**

## APPROACH

- AFA employs a **market facilitation approach** to select and support leading institutions committed to serving women smallholders on digital platforms.
- AFA works with carefully selected partners to **utilize human-centred design approaches** to develop appropriate “**bundles**” of **financial and informational services** for women farmers, while also **linking in significant agricultural buyers** to drive market access, lower risks for financial institutions, and increase impact for smallholders.

## PROJECT OBJECTIVES

1. Understand the needs, challenges, and pain points of women farmers
2. Understand farmer financial behaviors, information needs, channels, and key transactions to inform intervention points
3. Explore potential MVP solution spaces through low-fidelity prototypes

Mercy's Corps' AgriFin Accelerate (AFA) program in collaboration with FSD Zambia Women's Financial Inclusion program (WIN) seeks to improve the reach and delivery of information services, financial service, and formal markets to smallholder women farmers



# Approach and Methodology || Human Centred Design (HCD) Research to understand financial behaviours, needs & pain points of women farmers, as well as relevant products & channels

## APPROACH:

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HCD research was aimed at understanding women farmers' challenges, aspirations, needs, financial behaviors and preferences.

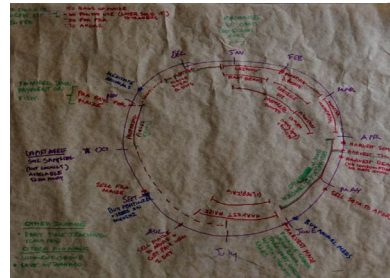
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## RESEARCH METHODOLOGIES:

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- (1) In-context interviews
  - (2) Participatory design sessions
  - (3) Stakeholder interviews
  - (4) Intercept interviews
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We used the following **HCD TOOLS** during interviews to help uncover deeper insights.



### Household seasonal map

We explored their strategies for managing all aspects of their agricultural practice in one year. Mapping out their major agricultural activities, expenses (farm to household purchases) and earnings (from harvest and other incomes)



### Ecosystem map

We engaged the women SHFs to understand their relationship with stakeholders across the agricultural ecosystem. By identifying supportive and problematic relationships, we can leverage healthy relationships to channel support, while developing solutions to the issues that arise from challenging interactions.



### Feature testing

Engaging participants in a dialog around crafted digital VSLA product prototypes, savings packages, input packages, microloans interest and incentives to help them convey their needs, expectations and ideas.

Approach and methodology | Where we went

Week 1: Generative research

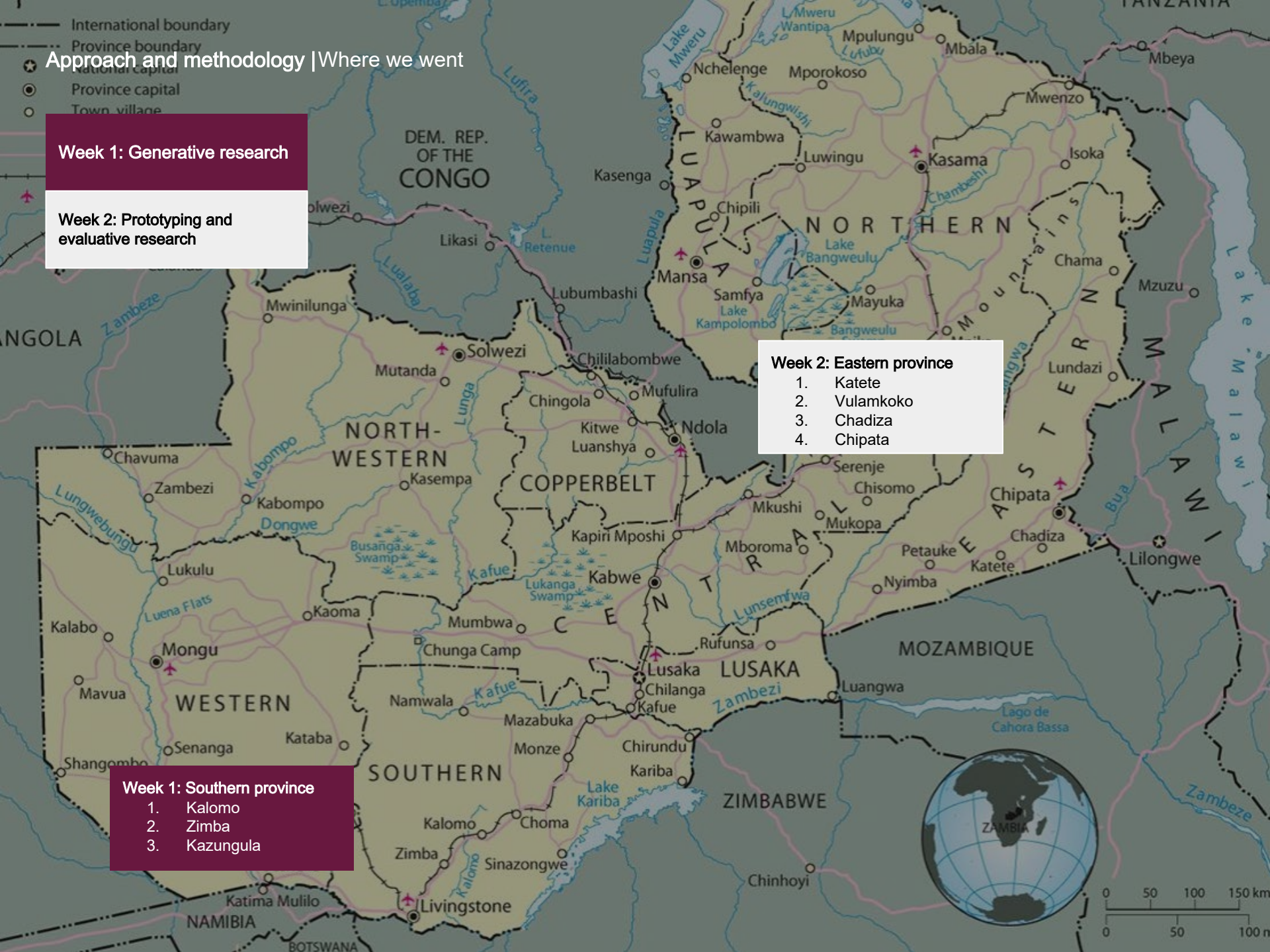
Week 2: Prototyping and evaluative research

Week 2: Eastern province

1. Katete
2. Vulamkoko
3. Chadiza
4. Chipata

Week 1: Southern province

1. Kalomo
2. Zimba
3. Kazungula



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Context



**Research findings: women cash flows, ecosystem, and segmentation**



VSLA insights



Opportunity areas



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## Research Findings | Cash flows of women smallholder farmers

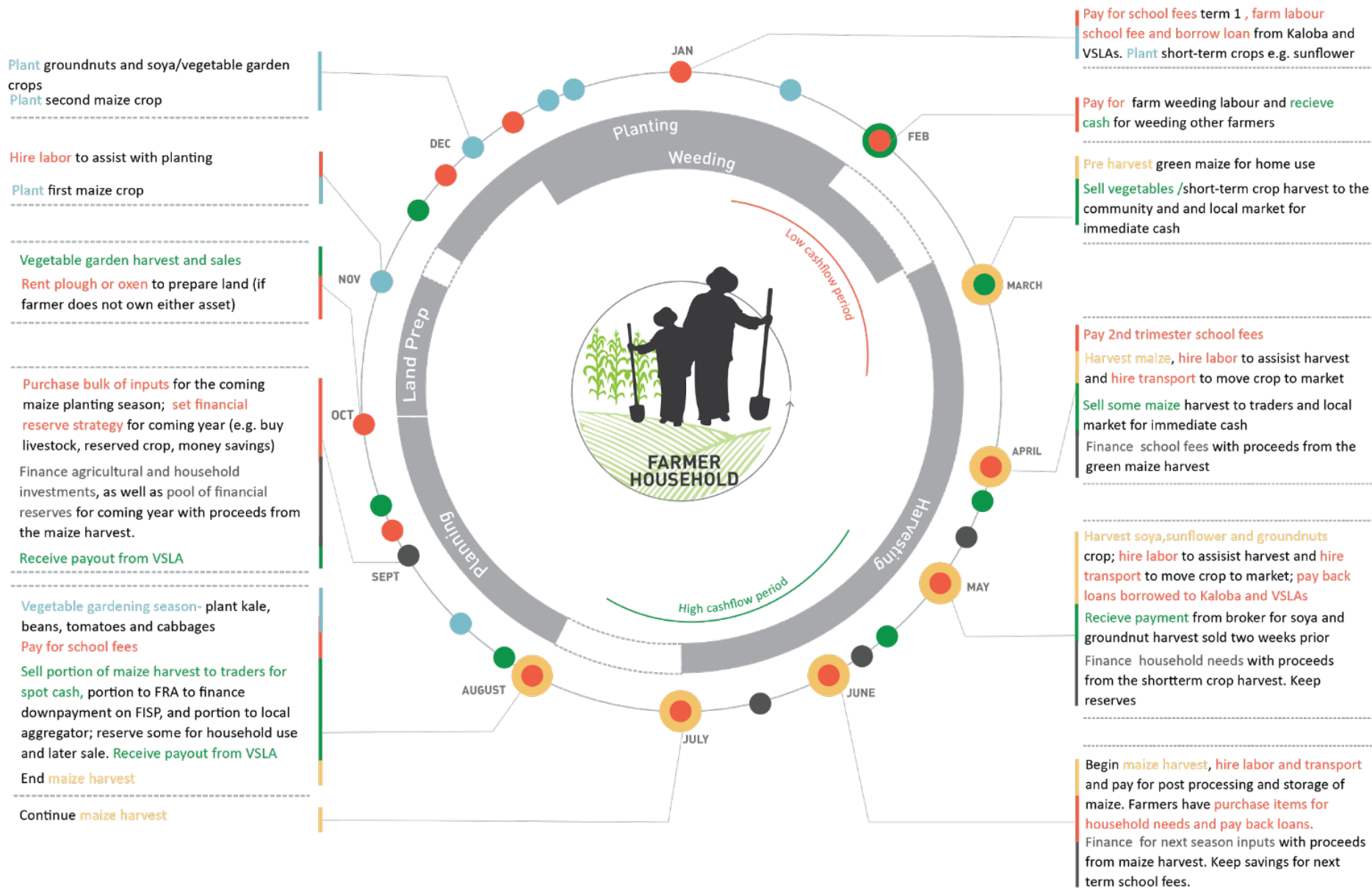
Through this exercise, we surfaced recurring challenges and unmet needs of women smallholder farmers over time. We could understand their income smoothing strategies by talking about tradeoffs and risks. These include:

- Diversifying women crops (short term) such as rape, tomatoes, groundnuts and cowpeas by intercropping them with main field crops during poor cash flow periods (February to April). Men (spouses) consider these crops 'non-commercial' and hence women SHF use them as a cushion household financial shocks by selling to the local markets and community.
- Joining more than two savings groups to lock their savings for purposes such as inputs, school fees, health, livestock purchase, household needs among others. This was to prevent them from using their savings frivolously.
- Building reserves after major harvests (August to September) by storing some harvest to sell them when market prices improve and for home use, purchase livestock as an investment or savings (liquidate/sell when the asset value increases).
- Diversifying income by getting into short term businesses such as selling groceries, relish, curios, being casual laborers at other farms to support them especially during January to April period and when school fees is required (January, April, August).
- Borrowing money from Kaloba (informal lender) and VSLAs to manage the poor cash flow periods when they need access to school fees, emergencies, inputs purchase and reinvestment in farms and business. They paid back during harvest periods (May to September).

We could also understand their constraints and limitations when speaking about their input selection and dosages they chose during planting seasons. Furthermore, we are able to glean insights about the families' underlying values, attitudes, and relational obligations that drove their decision making.

# WOMEN SEASONAL MAP

# Research Findings | Household seasonal map highlights financial behaviours of women farmers, including their income-smoothing strategies to manage cash flow



# THE WOMEN SHF ECOSYSTEM

## Research Findings | Ecosystem influences and relationships

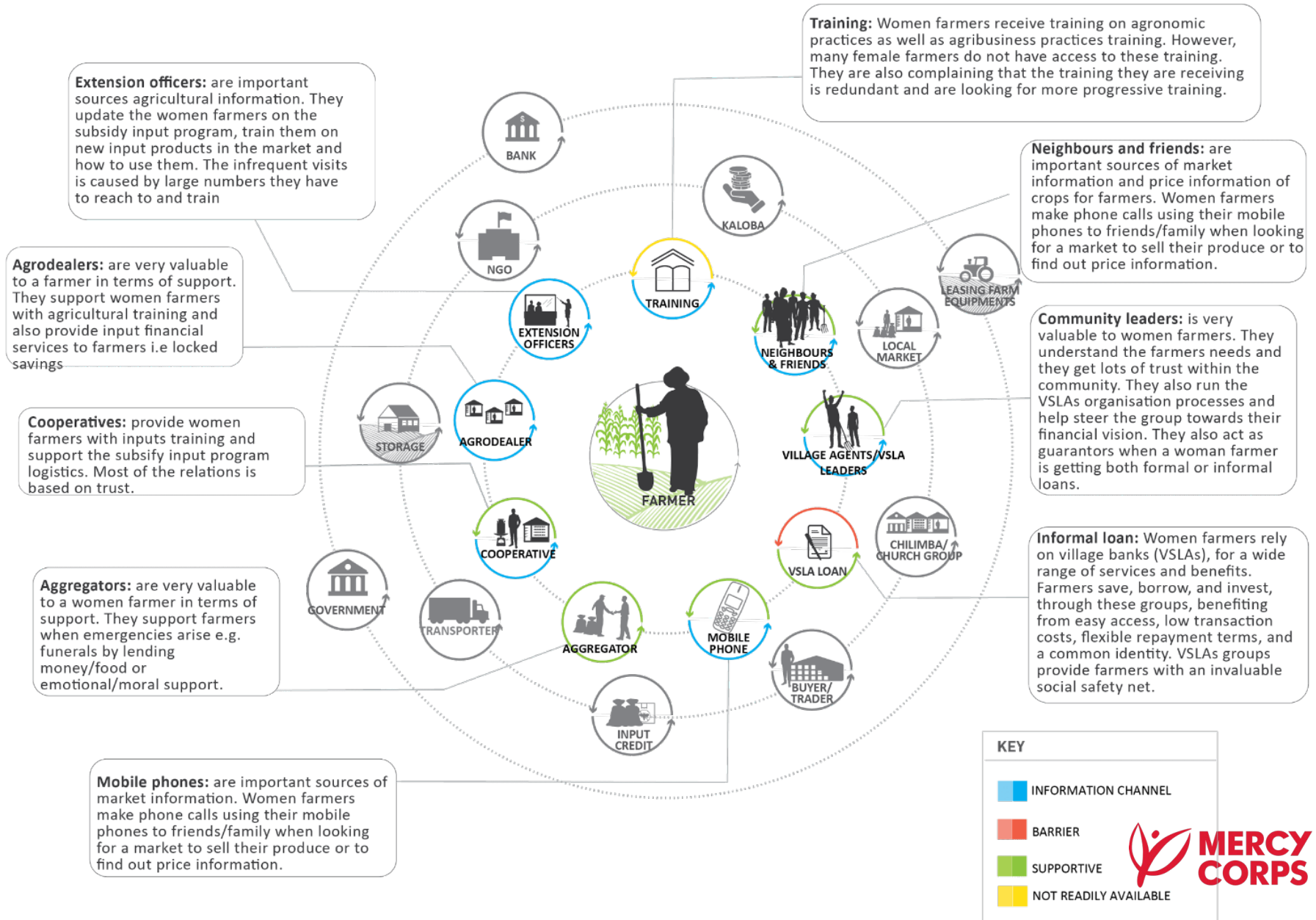
We asked farmers to place each ecosystem stakeholder on a map of three concentric circles, with the farmer at the center. Placements closer to the center signified relationships of greater importance; those further away were of less importance. We then asked farmers to highlight the most supportive and most challenging relationships they held, as well as the most essential for information flows.

In the circle closer to them, most of them listed stakeholders such as :

- Village agents/ VSLA leaders - VSLAs are an important community group for women farmers. VSLAs understand women farmers' needs and have lots of trust within the community. They run the VSLA organisations and help steer the group toward their financial vision. They also act as guarantors when a farmer is getting both formal or informal loans.
- Agro-dealers - They support women farmers with agricultural training and also provide input financial services to farmers (i.e., locked savings)
- Aggregators - They support women farmers when emergencies arise (e.g., funerals) by lending money/food or providing emotional/moral support.
- Cooperatives - They provide women farmers with inputs training and support the subsidy input program logistics. Most of the relationship is based on trust.
- Extension officers - They update the farmers on the subsidy input program, train them on new input products in the market and how to use them. Their infrequent visits are caused by large numbers farmers they have to reach to and train.
- Social networks (neighbours and friends) - These are important sources of market information and price information of crops for women farmers especially when looking for a market to sell their produce or to find out price information.


*\*Note: The agro-dealer, village agent, aggregator and cooperative leader, roles are fluid and could sometimes be managed by one person in the community.*

# Research Findings | Women smallholders' ecosystem shows relevant touch points / important stakeholders



**KEY**

- INFORMATION CHANNEL
- BARRIER
- SUPPORTIVE
- NOT READILY AVAILABLE



# Research Findings | Segmentation was done using metrics that can establish the financial health of women smallholder farmers

## Builds and maintains reserves

Steady saving and savings replenishment behavior, and the magnitude and liquidity of assets immediately available such as current reserves, including “economic value” in any form (cash, in-kind, livestock, harvest, etc.)

## Plans and prioritizes

Ability to see ahead, planning towards goals, action steps towards goals, and confidence in one’s financial future

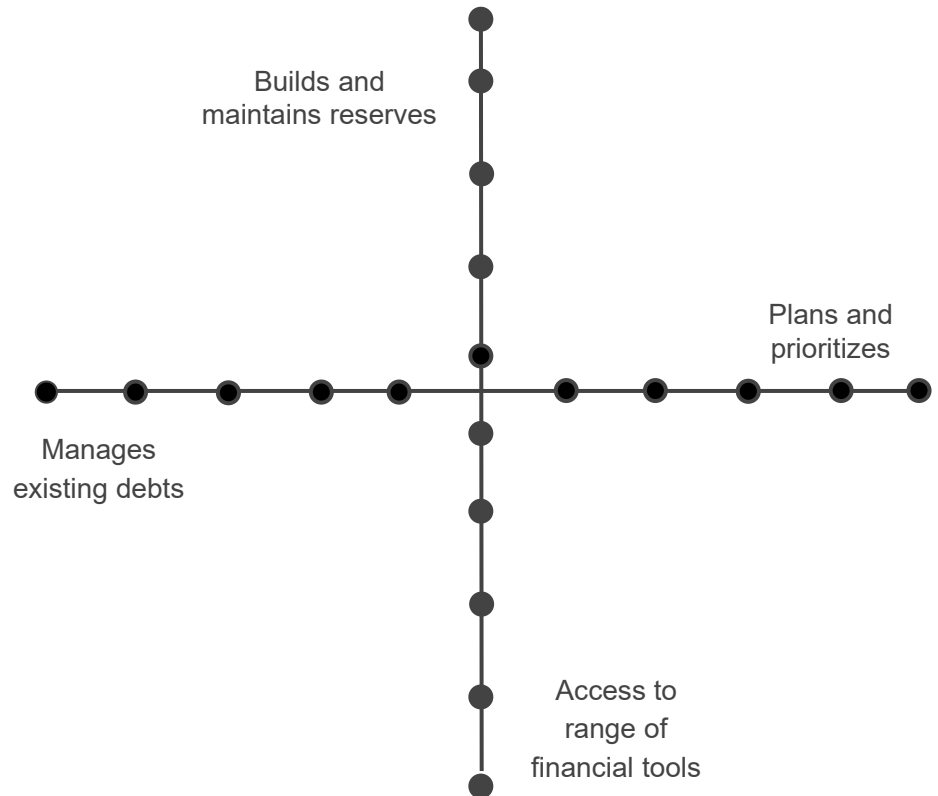
## Access to range of financial tools

Has access to suite of financial tools respondents use, whether formal or informal, to manage their financial lives

## Manages existing debts

How manageable their current formal and informal debt is, and what resources they can call upon through formal and informal sources

A behavior change framework helps us understand the different influences on driving behavioural change



# 4 PERSONAS

We identified 4 personas that represent sub-segments with distinct needs, behaviors and motivations. Each of these personas represent core needs and opportunity areas for creating financial services for women smallholder farmers



## The Entrepreneur



*“The future for my SLA members is soon changing now that we are thinking of finding a formal institution to borrow from”*

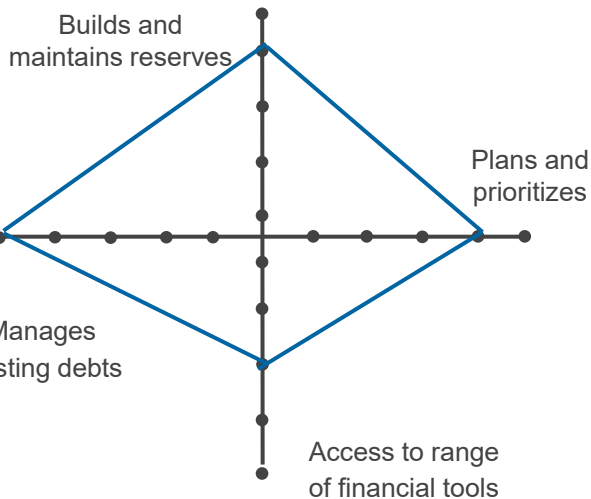
Eunice Mwale, community leader, Kazungula  
40 yrs old, 7 children

### Activities

- She is a community leader and encourages women around her to improve their financial well being
- Gives financial advice to members
- She uses mobile money and OTC for input payment and remittance

### Goals

- Keep growing her VSLA in size and eventually be able to move the savings into a formal institution
- Strives to continue growing businesses and diversify into new ones.



### Financial Portfolio

She saves \$10 to \$20 bi-weekly during bad which is between September to April and on good periods between May to August due to harvests and other diverse income sources thriving because of tourism season.

In her last share out she made \$600 that she reinvested in her farm and relish business.

She borrows loans for school fees, and inputs only because the group funds are not enough but ensures she pays them during harvesting periods

### Unmet needs

- Support in reaching group
- Easier money management and communication channels
- Support in access to financing options to support her group especially during the “bad cash flow period” and a bridging finance to her members

# Research Findings | Segmentation – Personas

## *The Restrained Hustler*



*“If only I could have a plough my life would be different”*

*Esnat Katebe, Smallholder Farmer, Chipata*

*36 yrs old, 10 children*

### Activities

- She is in two community groups (VSLA and cooperative) where she plans towards buying inputs, and paying school fees. Her husband is a respected community elder; and she leverages this for her businesses since the community trusts their family.

### Goals

- Diversify her income to purchase farm assets- plough, oxen
- Increase her income to start saving for bigger goals

### Financial Portfolio

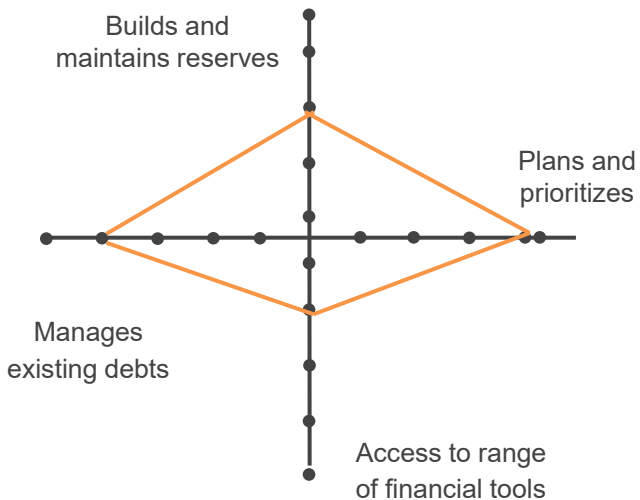
Her major expenses are school fees and inputs which is averagely \$500 yearly

She farms maize and soya one season yearly but cushions her household financial shock by farming short term crops that she sells locally.

She only invests in new businesses when she is confident of returns. She saves \$30 monthly for inputs and household needs

### Unmet needs

- Feels comfortable in taking financial risks but her options are restricted to her VSLA shares
- Quick access to more asset financing support
- Support in planning and managing household savings for longer-term goals



## *Tried and True*



*“I have been burnt by new ideas several times, sometimes I quit sometimes I move on to the next idea. This is also financially setting me back and so I tread carefully”*

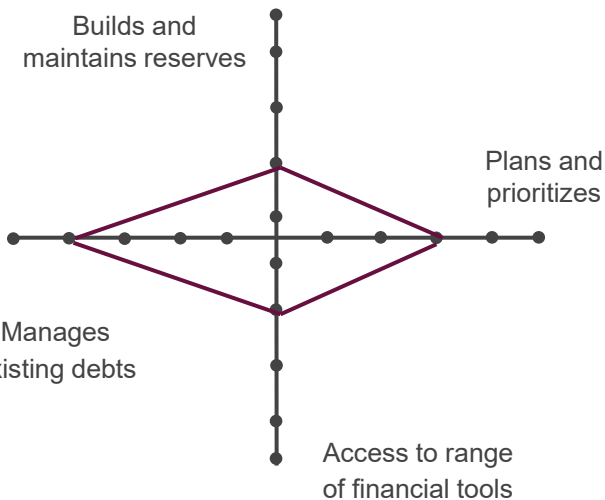
*Getrude Masiye, Smallholder Farmer, Katete  
25 years old, 4 children*

### Activities

- Likes to experiment and try new services introduced in the community
- Diversifies her income by finding new opportunities that will improve her farm productivity

### Goals

- Secure her children's' education
- Improve farm productivity with quality and affordable inputs



### Financial Portfolio

Often access bridging finances from her community lender “kaloba” of approximately \$300 each year during the bad cash flow periods (February to April).

She seeks for social support through her church group when she experiences financial shocks that she cannot manage

Saves approximately \$10 biweekly in different groups, and times share outs to specific goals

### Unmet needs

- Assistance in covering education and emergency expenses
- Lower financial burden to allow him to pursue new interests

# Research Findings | Segmentation – Personas

## *The Burdened Breadwinner*



*“I want to take of my kids education, but I’ll put priority on the farm since that’s my financial refuge”*

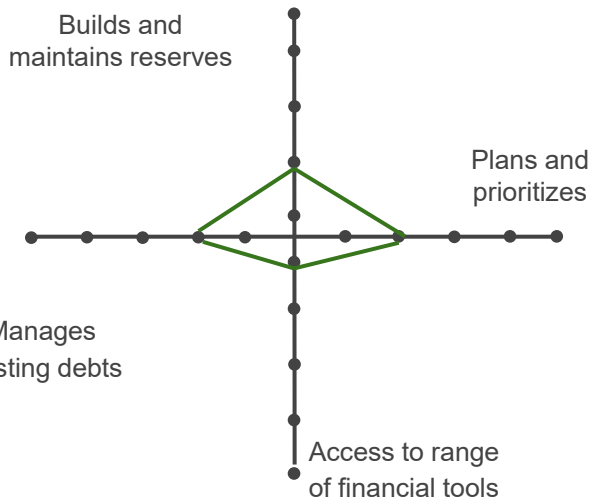
*Mary Muchimba, smallholder farmer, Chimusuka village, Katete  
42 years old, 9 children*

### Activities

- She often has to cover a lot of unexpected expenses and emergencies at home
- Takes less risk because she has no financial backup to support the household

### Goals

- Manage household a day at a time
- Send children to school
- Get into grocery business and use the profits buy reserves and prepare for the future.



### Financial Portfolio

She does not trust the bank and is too afraid to access to formal credit. She fears not being able to repay due to strict repayment terms.

She tried investing in relish business but it failed and had a difficult time paying back the Kaloba.

Saves \$10 per month for household emergencies

### Unmet needs

- The best possible education she can afford for her kids
- Support in financing household needs

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Research findings: women cash flows, ecosystem, and segmentation



**VSLA insights**



Opportunity areas



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## VSLA insights|opportunities to enable scale-up and formalization of VSLAs

We were able to glean insights about the group's underlying values, attitudes, and relational obligations that drove their decision-making toward digital and enabling factors of financial and information services.

The groups were being formed by village agents who are experienced VSLA members that established and trained new VSLAs for a fee paid by the members of the groups they serve. Most of the groups consisted of 50% and above women to men ratio.

The groups were in different stages:

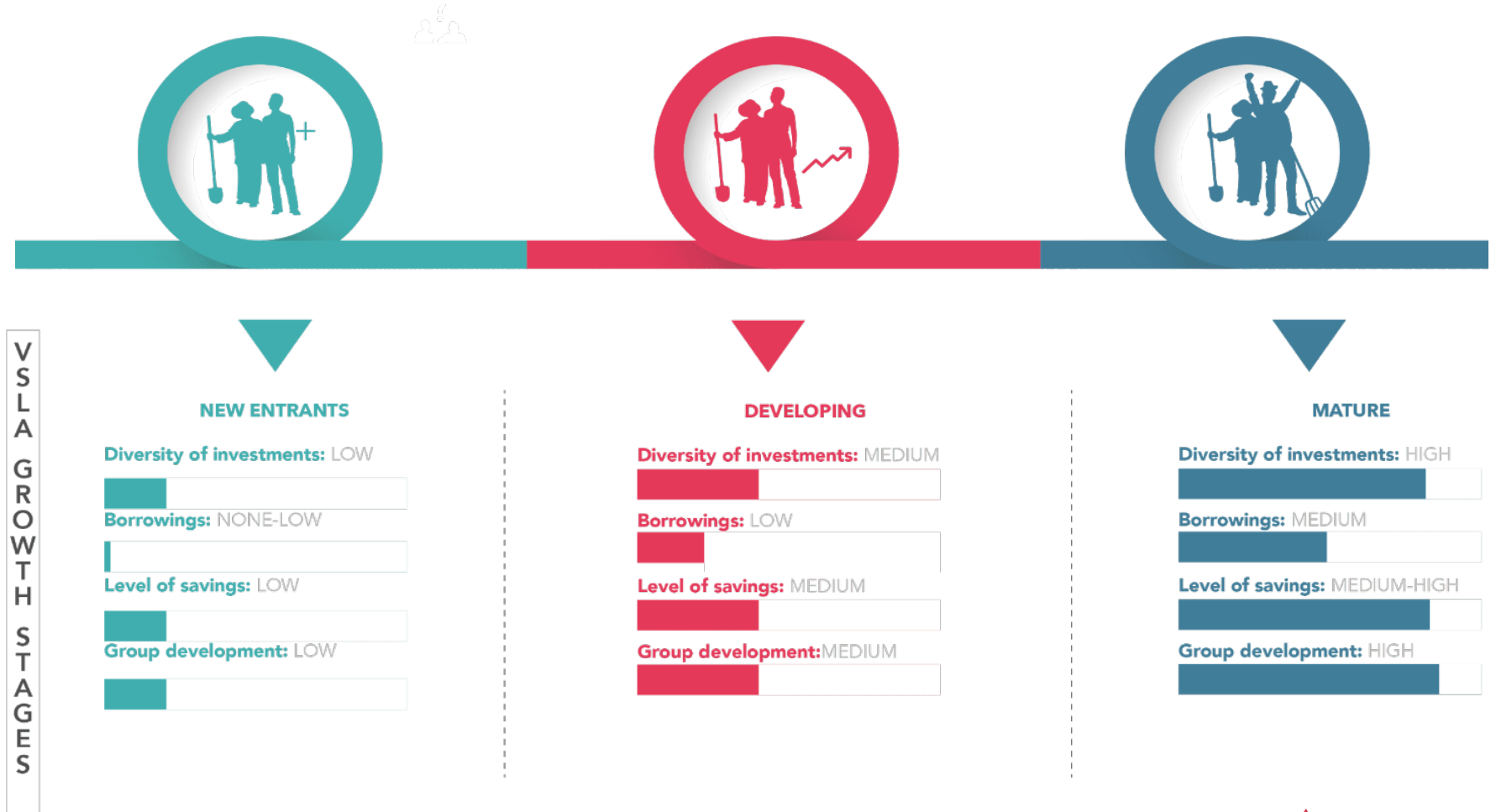
- **New entrants**
- **Developing**
- **Mature**

These groups maturity did not only depend on time and cycles of savings but on the metrics below:

- **Diversity of investments**
- **Borrowing levels**
- **Amount of savings**
- **Group development**

# VSLA insights|opportunities to enable scale-up and formalization of VSLAs

We identified savings groups patterns and behavioral models depended on the diversity of investments, borrowings, savings, and group development/maturity.



## NEW ENTRANTS

**Diversity of investments:** Have limited finances to use the savings for any group investment hence the focus on improving the internal process to reduce defaults of loans given to members to stay afloat and improve the consistent savings habit

**Borrowings:** Limited loan access to the group members to discourage defaults by having a high loan interest rate of 20% per month and high penalty incurring cost. Most borrowings are directed towards emergencies

**Volume of savings** Have a specific amount to save monthly usually between \$2-\$5. They also have a social fund kitty to support members who are in dire need such as death, sickness..etc

**Group development:** Created through influence of nearby successful groups. Focus primarily on emotional comfort, with the goal of building a trusted support network

## DEVELOPING

**Diversity of investments:** Selective members have diverse income that permits bigger savings goals and contributions

**Borrowings:** Based on the past experience, farmers start diversifying their income strategies to cushion themselves during emergencies. They borrow for input purchase in order to have better productivity so as to save more during harvest periods

**Volume of savings** The success of the group has been proven. Savings per month vary between \$10- \$20. Savings behavior have developed and members are already locking savings for different needs within their households

**Group development** Members are positioning themselves to explore linkages for both savings and credit offerings in different ways such as diversifying their income generation activities and investments on livestock and businesses (grocery stores, curios)

## MATURE

**Diversity of investments:** Developed strong financial skills and governance models from the village agents/FSPs training

**Borrowings:** They have a pressing need for asset finance, micro loans and bridging loans to support farm productivity, group investments, and other members' individual needs respectively

**Volume of savings** Monthly savings vary from \$50 and above depending on the flow of diverse cash flow. Some members have had previous experience with individual loans from formal FSPs. Group leaders are looking for cheap accounts to keep their money safe

**Group development** Most members have had greater exposure to mobile money and OTC services to manage remittances and payment, but only a few are consistently using these services or even have an account

# VSLA insights|opportunities to enable scale-up and formalization of VSLAs

We identified cross-cutting financial and non-financial challenges that VSLAs face at all maturity levels:

## FINANCIAL NEEDS

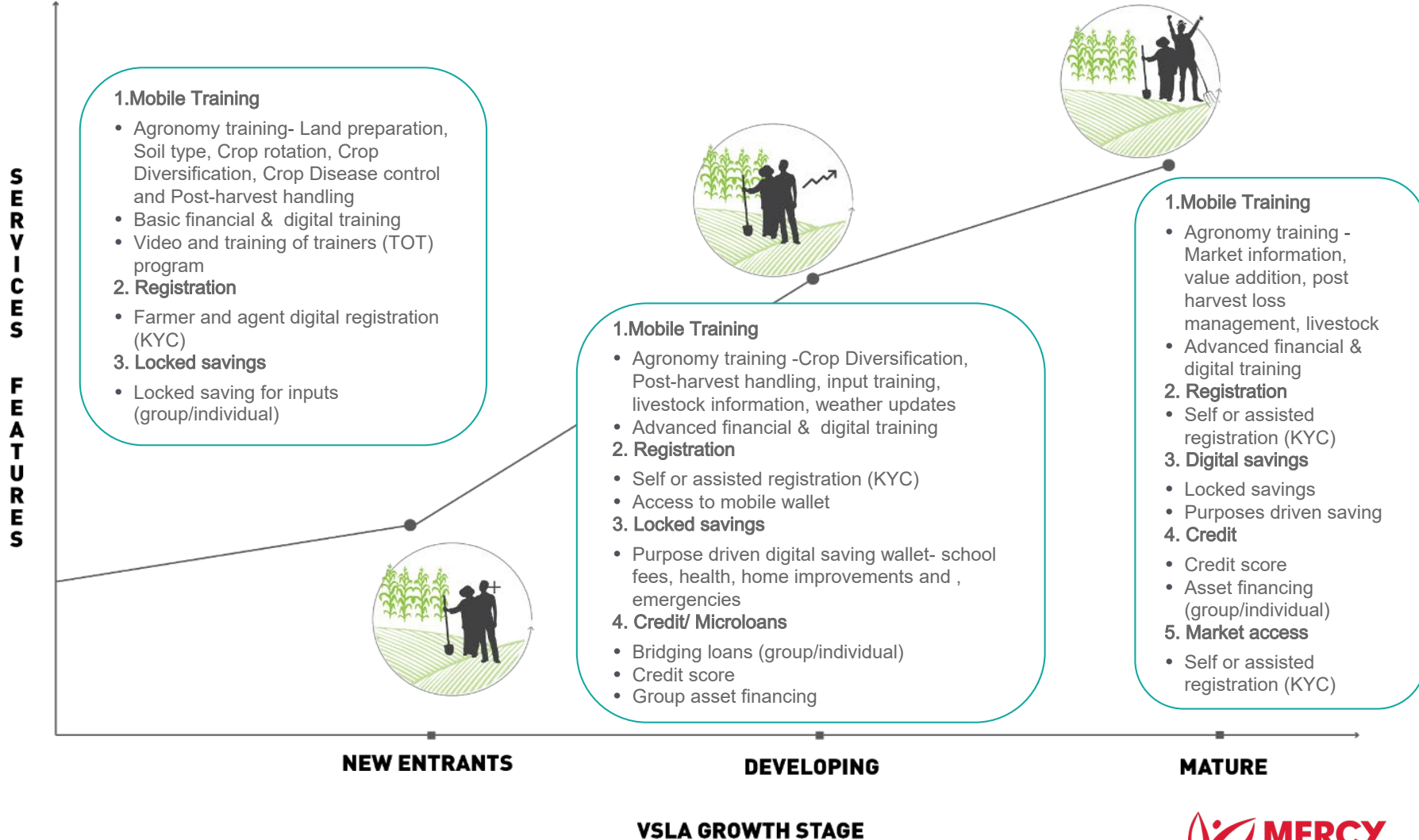
1. Support growth of VSLA to get access to formal financial services
2. Bundled services that offer emergency support services around financial products
3. Reliable and flexible access credit facilities
4. Access to group loans and micro-loans, using savings as collateral
5. Ways to build savings history in order to access better financing options

## NON-FINANCIAL NEEDS

1. Safer and more reliable group savings practices and systems
2. Increased transparency across all groups
3. Support and improve information services already being given by extension officers such as TOT model
4. Transitioning the VSLA to more formal structures
5. Support VSLA leaders to be knowledge hubs or agents to support more members and services

# VSLA insights||proposed phased approach to target VSLAs

Below is a staggered approach to digitized features for farmers who are in VSLAs and they vary based on the growth stage anchored around their needs.



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VSLA insights



**Opportunity areas**



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# 3

## OPPORTUNITY AREAS

### Key takeaways || opportunity areas for financial service providers and other actors targeting women smallholders

#### **PRODUCTS: Aligning product design with the agricultural cycle & other activities in which women are involved**

*While financial products might not look different for women smallholders farmers, it is important to design products that are aligned to their needs ensuring timely access to farm inputs, school fees etc.*

*Product examples: income-smoothing loans, locked/layaway savings*

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#### **CHANNELS: Empowering touch points close to women farmers**

*There is a high level of distrust in formal financial institutions, hence the need to leverage channels most trusted by women*

*Channel examples: cooperatives, agrodealers, community agrodealers, village agents*

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#### **TRAINING: Promoting financial and agricultural practices through education**

*Access to information (agronomy, markets, financial literacy, digital literacy) was highlighted as a top unmet need*

*Preferred training methods: in-person training, facilitated through trusted community members*

## *#1: Embedding financial services within women's activities*

**There is a need to integrate formal financial services into the seasonal activities of women.**

When we introduced women farmers to a digital financial services prototype for locked savings, they struggled to connect how accessing formal financial services platforms would improve their livelihood. There was a stronger use case for them to access a phone and/or financial services if it would benefit/help them to execute their daily activities more efficiently. Women desired products such as seasonal loans as they would accommodate their financial flows.

Unless digital financial service platforms creates simplicity and efficiency in the way that she women can achieve their goals, there will be slow adaptation and adoption.

“ ”

- Beauty Andeleke,imba District

# #1: Bundled services

Bundled services could increase mobile access and provide an enabling environment for DFS /DIS.

Women felt that a supply driven approach to increase access to phones and integrate their use in their daily activities, was the best way to create an enabling environment for DFS/DIS. Farmers suggested these bundling goods and services that meet their financial needs with specific assets/services could promote an enabling environment for DFS.

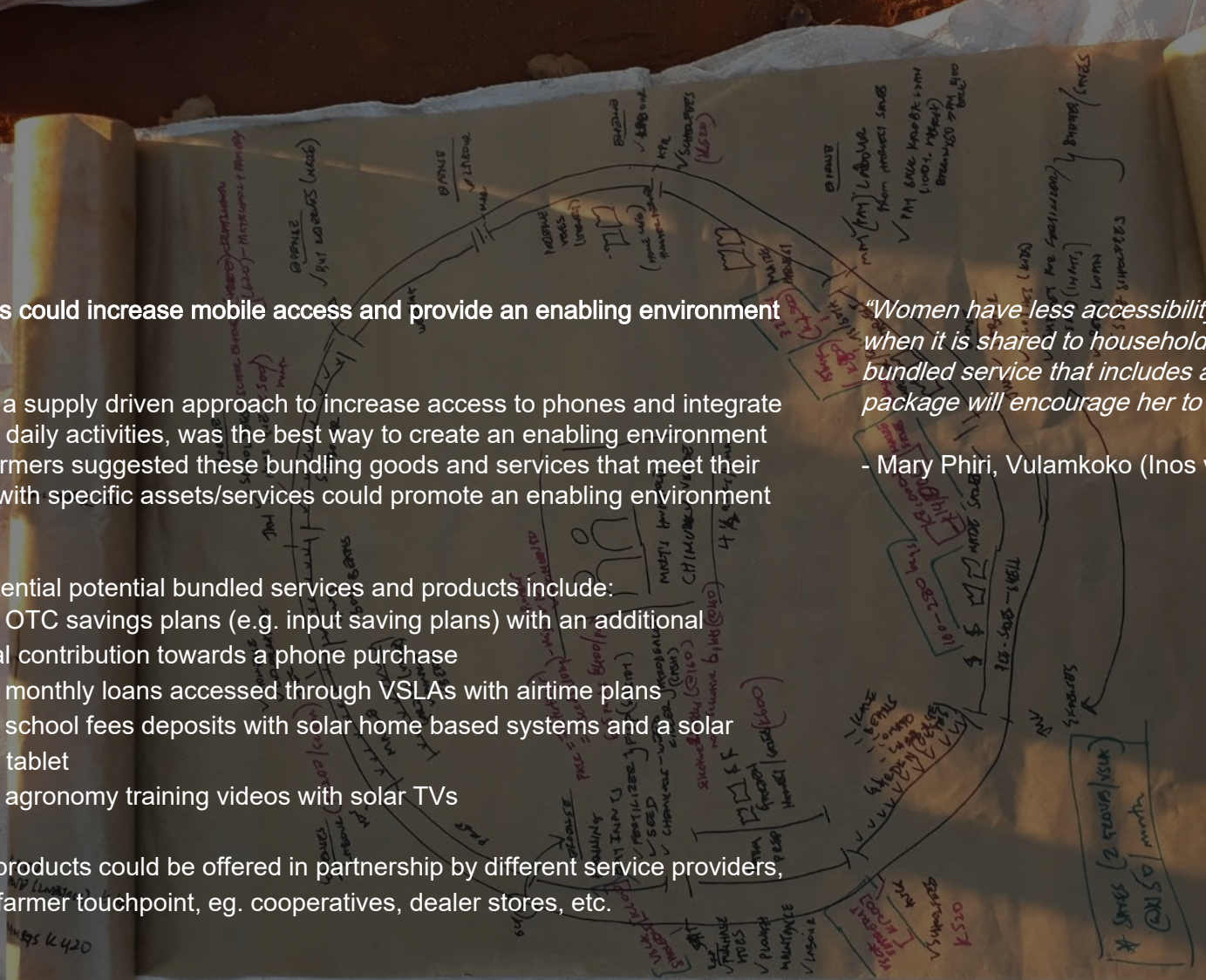
Examples of potential potential bundled services and products include:

- bundling OTC savings plans (e.g. input saving plans) with an additional contribution towards a phone purchase
- bundling monthly loans accessed through VSLAs with airtime plans
- bundling school fees deposits with solar home based systems and a solar powered tablet
- bundling agronomy training videos with solar TVs

These bundled products could be offered in partnership by different service providers, through trusted farmer touchpoint, eg. cooperatives, dealer stores, etc.

*"Women have less accessibility to phones when it is shared to households, so using a bundled service that includes a phone package will encourage her to use a phone."*

- Mary Phiri, Vulamkoko (Inos village)



## #2: Uptake channels for financial and information products and services

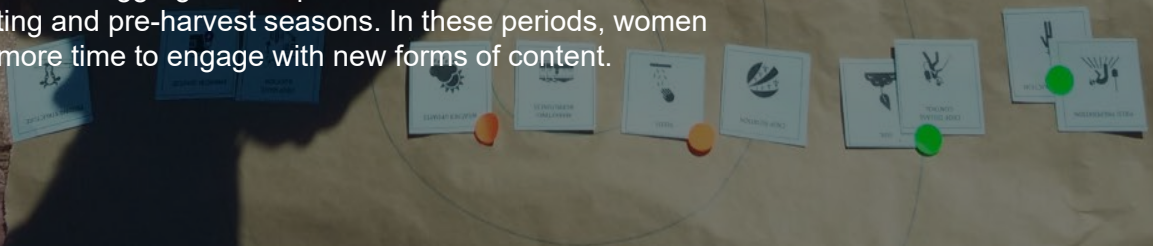
Women's desire to access information digitally in the future; however this is a faroff reality for most women.

Women were willing to use digital channels to access information on content they were already familiar with (e.g., weather updates, crop rotation, field preparation) however they viewed this as a far reality as most did not have consistent (if any) access to phones. With technical financial and/or agronomy content they are less familiar with, they expressed a need to receive in person training (e.g., crop value addition, how to use different agro-chemicals, etc.).

Few female farmers were open to video training; and they preferred for these to be less than 10 minutes long if they were at rural touchpoints (grocery/agro-dealer stores, VSLA leaders' homes, etc.). Video could also be used by Community Leaders (e.g., health workers, agro-dealers or aggregators to pass on information to women, especially during the pre-planting and pre-harvest seasons. In these periods, women are not in the fields and have more time to engage with new forms of content.

*"We know what farmers need and we are their trusted touch points."*

- Patrick, Vitalite Salesperson, Chipate



## #2: Service providers and input prepayment

Some community agro dealers are offering layaway savings plans to cater for farmers' cash flow cycles.

In Malate Village, a group of farmers approached Godfridah, a community agro-dealer to offer this facility all year round, since their VSLA share outs are not in line with when inputs are sold. She allows farmers to deposit money with her for inputs, and keeps a manual record of what farmers have paid her. She also provides slips for farmers each time they deposit money into her account.

This money is kept in a separate mobile money account, and she only records it as a sale when farmers collect their inputs. Godfridah does not lock farmers into product packages for this layaway plan - opting instead for them to pick what to buy on the basis of the amount saved. This ensures that if there are any input price fluctuations, she does not have to incur the cost; additionally if farmers do not come and collect she does not have to keep stock for them at the expense of another farmer purchasing the product immediately.

Should farmers not collect their inputs at the end of the input sales cycle, she can transfer the money back to them from her mobile money account for free.

*"This system is already working here, where farmers make deposits for the seed long before the period when they buy it. Some farmers will make payments of ZK100 and complete the total amount for the seed they want before the seed is available. Others pay the full amount at a go. When the companies deliver the seed at my shop, I call the farmers to collect the seed that they have paid for."*

- Godfridah Phiri, Agro-dealer, Malate Village

### #3: Preferred training methods for women farmers

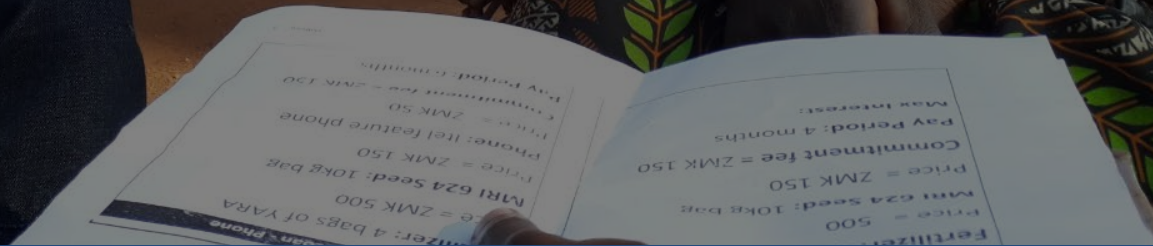
Women SHFs want in-person training, facilitated through trusted community members.

Women want to engage in person for knowledge transfer, especially when it requires behavioral change in their financial/farming practices and/or learning new skills. Agronomy information needs are best met in alignment with farming cycles, to allow farmers to immediately implement what they have been taught. Many women in-classroom style information dissemination where they could ask questions in a group. Women felt that the times for delivery were at: land preparation time, planting time, maintenance time and finally harvesting.

Community leaders (e.g., VSLA leaders, village agents, rural agro-dealers) and close family members were mentioned as trusted individuals to deliver training through since they influence their community regularly. Agro-dealers play a significant consumer education role on the products they provide, and desire more training materials as this information helps them maintain their customer base.

*“These people have come here to show us how we can live better lives. This is what we want, people to come and teach us in our communities.”*

- Bennadette Phiri, Vulamkoko





**CHRISTABELL MAKOKHA**

Country Director, Zambia | AGRIFIN ACCELERATE