

MERCY CORPS AGRIFIN

DESIGNING AGRICULTURE FINANCE PRODUCTS FOR WOMEN FARMERS IN TANZANIA

Insights, user stories & concepts

AUGUST 2020 (REVISED)

Dalberg Design



Climate Justice
Resilience Fund

BILL & MELINDA
GATES foundation



**MERCY
CORPS**

AGRIFIN

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INTRODUCTION

ABOUT AGRIFIN

Mercy Corps' AgriFin programming (MCAF) represents USD 35 million in innovation funding from the Mastercard Foundation, Bill and Melinda Gates Foundation and the Swiss Development Corporation to support development, testing and scale of digitally-enabled services to more than 3 million smallholders by 2021.

- Our objective is to **develop sustainable services that increase farmer income and productivity** by 50%, with 50% outreach to women and youth.
- MCAF **works as an innovation partner with private sector scale partners** and such as banks, mobile network operators, agribusinesses, as well as technology innovators and governments committed to serving smallholders at scale.
- We **help our partners develop, prototype and scale bundles of digitally-enabled financial and non-financial services** supporting partnership development between market actors that leverage their strengths
- We combine MCAF team expertise with strategic subsidy to **jointly implement iterative, fail-fast engagements with partners** on a cost-share basis, sharing public learnings to drive market ecosystem growth.
- Since 2012, we have completed **more than 150 engagements with over 70 partners.**
- Currently, **our work reaches more than 5 million smallholders.**



EXECUTIVE SUMMARY

BACKGROUND

70% of Tanzanians are in farming households but this group is the least able to adapt and access credit to **invest in their farms**. In response, the Climate Justice Resilience Fund along with the European Institute of Technology's Climate Knowledge and Innovation Community (Climate-KIC) has seed-funded the **Weather Index-based Risk Services "WINnERS"** insurance pilot that links farm insurance with access to credit, farm inputs, and climate-risk-reduction training.

The resulting mechanism is bundled together with input credit provided by commercial banks, **de-risking approximately 30% of the loan extended to farmers**. This service is the first automated insurance index that can provide tailored coverage for an unrestricted area and number of farmers - cutting transaction costs whilst protecting the farmer against losses due to weather events. This mechanism was piloted with Farm to Market Alliance (FtMA) program in the past two years. From the pilot it was observed that:

- 88% of the 24,000 Tanzanian farmers in WFP Farm to Market Alliance (FtMA) supply chains covered by the scheme accessed a loan for the first time in their lives.
- There was also a reduction in risk from improvements in farming practices, such as the use of climate-resilient seed species.
- **Women are under-represented amongst beneficiaries of access to supply chains and de-risked finance.**

OVERVIEW

PROJECT GOALS

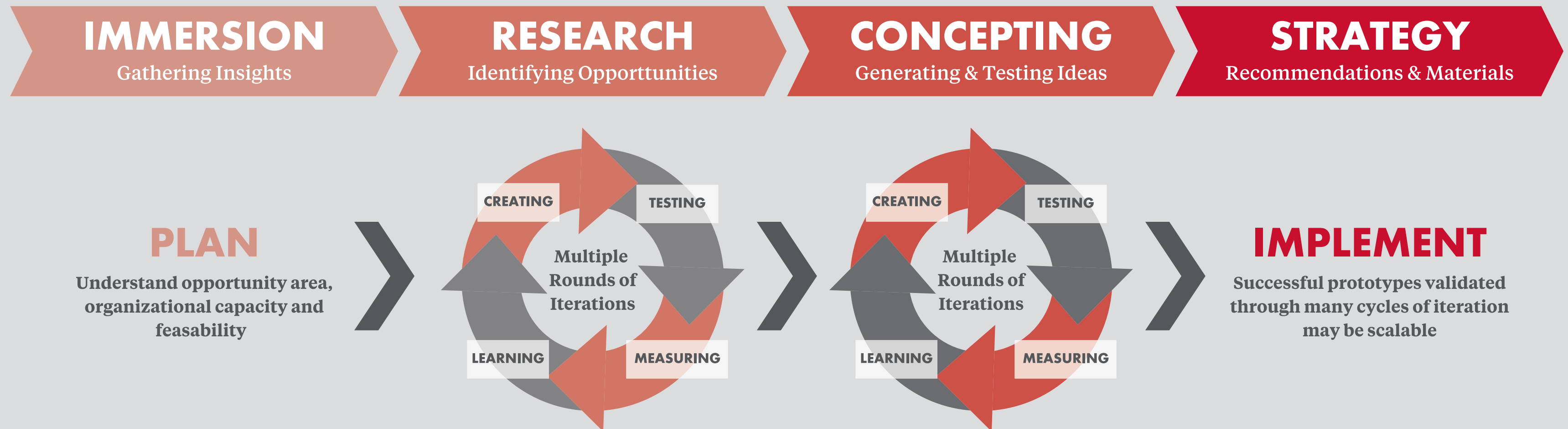
- The project goal was to support WINnERS Diversity Plus Program to improve access and engagement by female smallholder farmers in Tanzania, to inputs (seeds, fertilizers, etc.) and services, improving their quality and resilience to climate shocks, whilst de-risking input credit / insurance bundles for this market.
- To achieve these goals, we set out to:
 - Conduct human-centered design (HCD) research to generate insights on the needs and pain points, and opportunities to improve engagement with bundled credit / insurance products for female smallholders.
 - Develop recommendations through rapid prototyping to address these needs, pain points and opportunities, focusing on concepts that can be adapted to a variety of service providers, including overall product structure and features, delivery channels and onboarding and training approaches.

APPROACH

- Recent empirical analysis focusing on countries such as Tanzania demonstrated that although women are represented in a similar proportion to men in the agricultural workforce, they are significantly less likely to be able to access the improvements needed in their farms.
- Mercy Corps AgriFin was tasked with informing the best way possible through which to improve financial inclusion for women using Human-centered design research to:
 - Uncover a deep understanding of the women smallholder segment and how this relates to WINnERS Diversity Plus Program
 - Evaluate different service concepts that emerge from the ideation session, including prototype products or messaging elements to test with end-users, and incentives models to test with women farmers.

HUMAN CENTERED DESIGN

Human-Centered Design (HCD) research **enables us to gain deep empathy for users**, to question core assumptions, and inspire new solutions. In this project, our goal is to uncover insights through in-context observations of users, **learning from what they say, think, feel and do**, to **build early concept directions** for input credit and insurance bundles that work for female farmers. Through employing an HCD approach and focusing on women in farming cooperatives and credit groups, we identified the customer journey through accessing input loans and insurance products via the Farm-to-Market Alliance (FtMA) platform.



TURNING INSIGHTS INTO PRODUCTS

FEMALE SMALLHOLDER SPECIFIC INSIGHTS

- While accessing credit and quality inputs is a universal need, the Farmer Organisation channel is particularly inconvenient for women
- Despite women's representation in FO leadership, other barriers prevent women having their needs met by FOs
- Savings and credit groups play a crucial role in maintaining and improving women farmer's financial health
- Women farmer's household commitments and saving behaviour make them more likely to repay loans
- Women farmers are particularly time poor during land preparation, planting and harvest
- Exclusion from sales related information & decision-making inhibits women's confidence in loan uptake
- Women farmers seek flexibility in how and when they repay loans

FEMALE SMALLHOLDER SPECIFIC PRODUCTS

- Female Loan Agents
- Flexible Digital Payments
- Group Liability Loans
- Farmer Organisation Measures
- Financial Planning Trainings
- Client Testimonials
- Crop Pricing for Women
- Opt-in Additional Insurance

OTHER PRODUCTS NOT DEVELOPED

- *Standardised Buyer Contracts*
- *Graduated Loan Agency*
- *Farmer Organisation Wallet*
- *Credit Scoring Savings Behaviours*

A FEMALE FARMER'S JOURNEY

A FEMALE FARMER'S JOURNEY: ACCESSING INPUT LOANS & INSURANCE PRODUCTS VIA THE FTMA* PLATFORM



* FARM TO MARKET ALLIANCE (FTMA)

PRE-SEASON

A FEMALE FARMER'S JOURNEY: ACCESSING INPUT LOANS & INSURANCE PRODUCTS VIA THE FTMA* PLATFORM



* FARM TO MARKET ALLIANCE (FTMA)

1


PRE-SEASON

WHILE ACCESS TO CREDIT AND QUALITY INPUTS IS A UNIVERSAL NEED, THE FARMER ORGANISATION (FO) CHANNEL IS PARTICULARLY INCONVENIENT FOR WOMEN



- Access to quality inputs and credit is a universal need for male and female smallholder farmers in Tanzania rarely met by service providers who are deterred by the complexity and viability of reaching these customers.
- Delivery models often leverage Farmer Organisations (FO) as channels to achieve some economies of scale, but these groups tend to be particularly inconvenient for women.
 - FOs usually require members to meet on a monthly basis at a central location, and women often struggle to find time given their households responsibilities.
 - Further, women regularly lack capital required for them to access input loans; a Farmer Organisation's admission fee (up to \$50) and an input loan down payment (20-50%) which can be prohibitively high. The relatively small amounts of capital that women have is normally allocated to day-to-day household spending.

ADA'S EXPERIENCE WITH FARMERS ORGANISATIONS



"I CANNOT AFFORD 70,000 SHILLINGS FOR JOINING THE FO & TAKING A LOAN FOR THE FIRST TIME, WHEN I AM NOT SURE IF I WILL EVEN GET A LOAN IMMEDIATELY."

- Ada lives with her husband and two children in Iringa. She farms a one acre area for maize. Some seasons, when she has extra cash, she rents another acre to farm.
- The FO in her area provides input loans to its members but joining it would cost 60,000 Tanzanian shillings (\$26) in membership fees.
- In addition, to access the loan for enough seed and fertiliser for one acre, she would need to pay a 20% deposit.
- Ada thinks the loan might help her farm more, however she does not feel comfortable asking her husband for the joining fee and deposit. She is concerned this will keep her restricted to only farm one acre and she won't ever have enough to pay the joining fee and deposit.

1

PRE-SEASON

DESPITE WOMEN'S REPRESENTATION IN FO LEADERSHIP, OTHER BARRIERS WITHIN THE FO PREVENT THEM HAVING THEIR NEEDS MET.



- The FOs studied typically had women in at least half of its elected leadership positions. However, this does not necessarily translate into an increase in participation of women farmers in FO and subsequently greater access to input credit. While many women appreciated having women in the FO leadership they could speak and relate to, they didn't always feel comfortable sharing their needs with the FO.
 - Firstly, as public meetings were the main forum for members to share their needs to decide next steps, younger women, in particular, didn't feel they had the experience or relationships to speak up in these typically male-dominated settings.
 - Secondly, the FO leadership took decisions on which members were eligible to receive credit, which meant that members had an interest in presenting themselves as creditworthy (e.g., having healthy finances, assets and access to disposable capital). As a result women who suffered precarious financial situations (often owing to their time scarcity and lack of assets), felt unable to talk to FOs about their needs for fear of being excluded from getting credit.

TAABU'S INSIGHTS ON FARMERS ORGANISATIONS



- Taabu grows maize on a one acre land. She wants to increase her harvest by renting another acre, through a loan. However, her husband thinks that it is better to continue on one acre rather than paying interest on loan.
- Sometimes, the money from selling maize is not enough to buy inputs. Hence, Taabu grows tomatoes, potatoes and beans so that the money from the sales can enable her to buy seeds for next season.
- Taabu feels that taking a loan will free her from the stress of finding timely and quality inputs. However, she fears that her husband might not agree on repaying loans.
- She feels hesitant to this situation at the FO meeting as she thinks that other farmers may lose confidence in her and not include her in the loan applications. She also fears that other men might complain to her husband which might cause a fight at home.

1

PRE-SEASON

SAVINGS AND CREDIT GROUPS PLAY A CRUCIAL ROLE IN MAINTAINING AND IMPROVING WOMEN FARMER'S FINANCIAL HEALTH.



- Women farmers gravitate towards women-centric groups like savings groups due to their accessibility, trustworthiness and flexibility. They have low or no entry costs, which fits with their limited liquidity, and often meet in spaces close to their responsibilities at home.
- Furthermore, groups are normally made up of other women who they know well and can relate to, trusting they won't act recklessly with their savings due to their similar responsibilities at home.
- Finally, while loan amounts available through these groups can be small, access and repayment is typically flexible, which is attractive given the short-term liquidity challenges faced by women farmers.
 - The group model builds effective saving behaviours - regularly putting aside smaller amount of money via buying group 'shares' - which in turn provides collateral for loans from within groups, as well as potentially external loan providers particularly when these groups are legally registered as a "SACCO".

FAUSTA'S FEEDBACK ON SAVINGS & CREDIT GROUPS



"AFTER TAKING A LOAN, I REQUESTED FOR EXTENDING MY REPAYMENT BECAUSE IT TOOK ME TIME TO SELL MY CROPS. THEY UNDERSTOOD MY SITUATION AND I WAS ABLE TO REPAY MY LOAN WITH A MONTH EXTENSION."

- Fausta is a recently elected FO leader who is also a smallholder farmer. She was one of the first women to join the FO.
- Prior to joining, Fausta was part of a registered women savings group where she saved 5,000 Tanzanian shillings per week. She recognised that while she was not able to get an input loan through this group, she built confidence by saving, planning and eventually joining the FO.
- Her prior savings behavior helped her gain trust and credibility while applying for input loans. At the same time she could spend from her savings to hire labour for land prep and harvest, as she needs to manage the household responsibilities.
- Now as a FO leader, she recognises the role of the women's group and is eager to support more women through FO by bringing in the best practices of women's groups.

1

PRE-SEASON

WOMEN FARMER'S HOUSEHOLD COMMITMENTS AND SAVING BEHAVIOUR MAKE THEM MORE LIKELY TO REPAY LOANS



- Credit scoring typically focuses on transaction history, debt repayment history and asset ownership. While women farmers often lack this type of evidence, they display a range of behaviours which suggest they will invest debt carefully and prioritise repayment.
- Women are acutely aware of how financial mismanagement can affect their households. They see firsthand how income poverty affects their dependents, with whom they spend most of their time.
- Women farmers regularly save either at home or via groups, which can demonstrate responsible and consistent financial behaviours necessary for debt repayment.
- Finally, women bear most responsibility for the care of dependents and thus, are often considered to be less likely to relocate to avoid debt collectors.

JANET'S EXPERIENCE WITH SAVINGS GROUPS



"I WANT TO MAKE SURE I PAYBACK BECAUSE I DON'T WANT MY GUARANTORS TO HAVE A HARD TIME."

- Janet joined a savings group and started saving a small amount of 5,000 shillings per week. The savings were helping Janet acquire shares in the group. After saving for eight months, Janet was able to acquire more than fifty shares.
- Based on her ability to save, Janet felt confident that she will be able to repay loans offered by the group. She used her fifty shares as collateral against an input loan from the group, then reached out to her sister and neighbour for sponsoring her in the loan application.
- Janet was confident she would be able to repay because, even if she had a low yield, she could use her shares in the savings group to repay the loan. Having seen Janet's participation in weekly savings group meetings, the group approved the loan.

1

PRE-SEASON

LACK OF COMPREHENSIVE FINANCIAL PLANNING AND RECORD KEEPING CAN LIMIT UPTAKE OF AGRICULTURE LOANS



- Despite having short-term spending needs, farmers are normally dependent on long-term windfalls from harvest. This is particularly true of women farmers who rarely have additional sources of income due to time constraints. A fear about not having enough cash to support their family can, understandably, mean they're very cautious about taking on large input loans even if there is likely to be a significant return on investment.
- Many women cite their lack of understanding of their farming costs and revenues as a key reason they don't feel comfortable to use debt to invest in their farms.
- Skills around cost and revenue itemisation, estimation and summation, along with proper record keeping, may build confidence about making investments using debt.

SALOME'S CONCERNS ON TAKING A LOAN



- Salome relies on income from her potato harvest to buy fertiliser for her maize crop, though she doesn't have enough to buy the pesticide or additional fertiliser that she needs.
- But, with no experience of taking a loan before, she is worried about not being able to pay it back, harming her family's prospects. She feels she would take a loan with the right support, particularly around how debt and investment will affect her farm's costs and revenues.
- Currently, she allocates certain types of revenue (e.g. potato harvest) to costs that occur around the same time (e.g. maize fertiliser), but doesn't have a clear idea of how much her overall operating costs are.

PLANTING & GROWING

A FEMALE FARMER'S JOURNEY: ACCESSING INPUT LOANS & INSURANCE PRODUCTS VIA THE FTMA* PLATFORM



* FARM TO MARKET ALLIANCE (FTMA)

2

PLANTING & GROWING

LATE OR INCORRECT INPUTS CAN TRAP SMALLHOLDER FARMERS IN A CYCLE OF DEBT AND EXCLUSION



- Once approved for a loan, FOs and their members wait for the relevant inputs to be delivered so they can be applied in time to give the best chance of a good yield.
- However many farmers reiterated stories of receiving key inputs late, in turn causing them to plant late or miss windows to apply fertiliser.
- Furthermore some farmers reported receiving the wrong inputs, usually seeds, which put them at higher risk for lower yields or crop failure. As a result farmers lose a valuable source of income and are more likely to default on their debts. To make matters worse, most FOs and farmers lack the knowledge, skills or contractual basis to prove and force compensation from the input supplier.

HOW DELAYED DELIVERIES CREATED A CYCLE OF DEBT FOR JACKSON

- After his loan was approved by the AMCO, Jackson went to the agrovet to collect the seeds and fertilisers. The agrovet said that he needed to wait because at the current price, he would get less bags than he needs. Jackson had to wait several weeks for the revised price mandates to be announced by the government.
- This delayed his planting, and resulted in him getting less rainfall, thus affecting his yield, which ended up as much lower than the previous year.
- Jackson realised he might not be able to sell enough to pay back the loan, and is stuck in a cycle of debt that might take him a few seasons to repay.



"GETTING SEEDS LATE WAS NOT MY FAULT, BUT I STILL HAVE TO BEAR THE CONSEQUENCES."

2

PLANTING & GROWING

WOMEN FARMERS ARE PARTICULARLY TIME POOR DURING LAND PREPARATION, PLANTING AND HARVEST



- Certain phases of the farming cycle, such as land preparation, planting and harvesting, require long and continuous hours on the farm. This compounds the time poverty faced by women who, given gender norms around women's household role, must balance farming with caregiving to children and elderly, cook, clean and buy or collect provisions for the house.
- Hence, women end up spending more to hire labour or machinery during these periods to compensate for the lack of time.
- Additional tasks, like attending FO meetings or networking with different off-takers, often are not feasible during these periods.
- Further, many women struggle to manage the additional financial burden, especially because most loan products are bundled with inputs rather than providing cash to pay labourers.

HOW TIME SCARCITY AFFECTS ROSINA'S PROSPECTS

- Rosina lives with family of five: two children, husband and an elderly mother-in-law.
- This becomes challenging to manage during the land preparation and harvest seasons when she needs to be on the farm longer.
- Rosina hires two labourers to support her with tasks like threshing. She has to dig into her savings and borrow from neighbors to be able to pay for labour costs given the input loans only cover seeds and fertilisers.
- Rosina is unable to increase her produce from one acre as she does not have the means to hire more labour.



"HOW CAN I THINK OF FARMING MORE THAN ONE ACRE WHEN I DON'T HAVE THE MONEY TO PAY FOR LABOUR ON MY CURRENT FARM?"



HARVEST & SALES



A FEMALE FARMER'S JOURNEY: ACCESSING INPUT LOANS & INSURANCE PRODUCTS VIA THE FTMA* PLATFORM



* FARM TO MARKET ALLIANCE (FTMA)

3

HARVEST & SALES

EXCLUSION FROM SALES RELATED INFORMATION & DECISION-MAKING INHIBITS WOMEN'S CONFIDENCE IN LOAN UPTAKE



- Gender norms that shape the role of men and women in society also influence their roles in the farming ecosystem. Men usually take on the responsibility of selling crops. They typically hold the relationship with brokers (people who connect farmers to buyers in the absence of a formal market), who are also typically men.
- Women, deemed to be primary caregivers, stay proximate to households. While women may participate in farming activities during the preparation, planting and harvesting phases, they do not have the agency in selling and lack visibility of the potential and actual farm revenues accrued. This reduces women's confidence to take on loans to expand the capacity of production by renting farms.

HOW GENDER ROLES SHAPE JOYENA'S TRAJECTORY



"THE KEY TO THE STORE ROOM IS WITH THE HUSBAND. A WOMAN CANNOT SELL CROPS WITHOUT HER HUSBAND'S PERMISSION."

- Joyena is a farmer with one acre of land. Her husband farms on another acre of land and together they are able to produce enough maize that helps them save enough to get by the rest of the year.
- After harvest, Joyena and her husband store maize inside their house to protect it from damage and pests. Her husband seeks out the broker to make sure they do not get cheated on pricing. Joyena feels that if they were not dependent on the broker and her husband for selling, she could apply for input loans.
- However, she is worried that her husband might not allow her to take money from sales for repaying loans and that will cause her to default.

3

HARVEST & SALES

IN BROKERING MARKET RELATIONSHIPS, FOS INCREASE CREDIT WORTHINESS & PRODUCTIVITY OF THEIR MEMBERS



- In the absence of structured markets for crops like maize, the lack of timely sales and reliable pricing curbs the ability of farmers to take on and repay loans on time. It also reduces the farmers confidence to increase their farming capacity beyond subsistence. FOs are able to cut high off-taker engagement, coordination and aggregation costs by organising their members to grow the right crop at the right time and quality.
- This level of organisation is typically a product of members trusting the FO to provide them access to quality inputs on time and on (at least partial) credit. Moreover, FOs who have historically negotiated contracts with larger buyers have the capacity to support their members in other ways.
- While identifying channels and incentives for FOs to successfully include women is important, the long-term capacity of the FO to support women farmers is dependent on their ability to negotiate a range of important relationships. A track record of buyer contracts is normally a good indication an FO is supporting its members.

MONICA'S EXPERIENCE AS AN FO LEADER



- Monica is a leader in a Farmer Organisation near Iringa. Using the collective bargaining power of its members, she helped negotiate a deal with an input supplier so they're able to buy quality inputs with a 50% down payment, and 50% payment after harvest.
- In addition, Monica worked with an NGO to have a crop aggregation and storage warehouse built at the center of the community. With this infrastructure in place, members are confident the FO can meet their selling needs, thus agreeing to only sell as a collective (rather than be tempted by side-selling).
- The combination of an organised membership growing quality crops which can be aggregated at a central location means Monica is able to negotiate with large buyers, securing a higher price for her member's crops. Given their time scarcity, women in the FO particularly benefit from this reliable provision of services.

3

HARVEST & SALES

THE PARTIAL VALUE PROPOSITION FOR WEATHER INDEX INSURANCE IS NOT ALWAYS CONVINCING AND OFTEN MISUNDERSTOOD



- Understanding and accessing the benefits of insurance can be complex, particularly for those who have no experience of such products. The value proposition is typically strongest when the customer feels comprehensively covered.
- While clearly a significant and rising risk, income loss due to extreme weather is just one of many risks women farmers face, e.g. volatile markets, pests and diseases, late or poor quality inputs. Moreover the partial nature of weather index insurance coverage can be both confusing (customers are unclear what they're covered for) or perceived as a lower priority due to the many other (potentially more visible) risks.
- This constraint is particularly apparent for women who may have comparatively less time, skills or relationships to fully understand a complex new product or pursue a claim.

BEATRICE'S INSIGHTS ON NEGOTIATING INSURANCE



- When Beatrice and other farmers in her region suffered severe losses due to low rainfall, they reached out to the FO, who had provided the bundled insurance and input loan to them. However the amount Beatrice received from the insurance was much lower than what she expected.
- This year, while signing the loan contract, Beatrice and other farmers realised there was a new insurance provider. Weary from her previous experience, she refused to sign the contract until representatives from the insurance company explained details and coverage from the insurance.
- The farmers demanded that the insurance not only cover weather but also other potential challenges like bad seeds, untimely delivery of seeds, poor quality fertilisers, etc. as they can all cause the setbacks, and are perceived to be equally out of control for farmers.



POST-SEASON



A FEMALE FARMER'S JOURNEY: ACCESSING INPUT LOANS & INSURANCE PRODUCTS VIA THE FTMA* PLATFORM



* FARM TO MARKET ALLIANCE (FTMA)

4

POST-SEASON

WITHOUT A DIRECT RELATIONSHIP WITH PROVIDERS, CLIENTS STRUGGLE TO HOLD THEM TO ACCOUNT



- Providing farmers with input loans and insurance bundles via the FtMA platform involved a complex network of interdependent providers. These include: input suppliers (sometimes multiple), buyers, banks, guarantors, extension NGOs, insurance partners, and the Farmer Organisation (FO). Each partner has a different (normally unfamiliar) name and role, and few have representatives who meet the farmer (and FO) in person.
- When things go wrong (e.g. inputs arrive late, disputes over crop loss due to extreme weather), farmers don't have the contacts, let alone the experience, to pursue providers to follow up or compensate.
- Furthermore, the complexity of roles in the partnership makes it easy for providers to allocate responsibility for a mishap to another partner, leaving the farmer isolated in their pursuit for a resolution. This challenge is particularly acute for women farmers who are time scarce and may have fewer relationships, resources or relevant experiences to help keep providers to account. Conversely, loan clients are always held to account for the loans they take.

FATUMA'S FEEDBACK ON INPUT LOANS



- When a new organisation introduced a loan product, a local NGO conducted a one day awareness drive in Fatuma's village. Fatuma was told that with this loan, she could only buy the seed suggested by the organisation. Fatuma hadn't used the prescribed variety of seed before, however she needed the loan for inputs.
- When Fatuma discovered the seeds were not germinating well, she reached out to her local agrovet, who suggested using additional fertiliser. But when that did not yield results, she went back to the representative from the NGO that conducted the drive. The representative was not able to help her. He said that his responsibility was to only tell people about the loan. Fatuma was scared that she will incur huge losses, but did not know who she could seek help from.

4

POST-SEASON


WOMEN FARMERS SEEK FLEXIBILITY IN HOW AND WHEN THEY REPAY LOANS



- Most maize farmers practice mixed cropping throughout the year to stabilize their income while reducing the risk of bad weather, poor inputs or volatile markets that have the potential of leaving them without an income. Tomato, potato, beans, sunflower are crops commonly harvested ahead of maize.
- Consequently, some farmers are interested in making progress on loan repayments prior to their maize harvest, or at least have the option, reducing the risk that they will default or become severely cash poor. In addition, farmers are wary of the time and resources it takes to make repayments in person, either at an FO or to a loan agent far from their home.
- Flexible and convenient loan payments are a particular priority for women farmers who, due to household responsibilities, are time poor and highly aware of how cash shortages or exclusion from credit affects the wellbeing of their dependents.

HOW POOR QUALITY SEEDS AFFECTED SOPHIA'S LOAN

- Sophia and other farmers in her area experienced low yields due to poor quality seeds last season. She along with other farmers lodged a complaint with the district commissioner, however there is no resolution that is immediately in sight.
- In the meantime, Sophia had an agent visit her home for a loan repayment reminder. She shared that she will need more time to start repaying, but the agent did not have an option to offer. He mentioned that her livestock will have to be sold to recover the loan if the repayments do not happen on time.
- Sophia knows that this will set her back for few years as she may not get loan and earn extra living from selling cow milk.



"BANKS WANT YOU TO START PAYING EVEN BEFORE HARVEST. THEY WON'T HEAR YOU IF THE RAINFALL IS LATE OR SELLING TAKES TIME."

SUMMARY OF KEY INSIGHTS BY JOURNEY STAGE

1

PRE-SEASON

- While accessing credit and quality inputs is a universal need, the Farmer Organisation channel is particularly inconvenient for women
- Despite women's representation in FO leadership, other barriers prevent women having their needs met by FOs
- Savings and credit groups play a crucial role in maintaining and improving women farmer's financial health
- Women farmer's household commitments and saving behaviour make them more likely to repay loans
- Lack of comprehensive financial planning and record keeping can limit uptake of agriculture loans

2

PLANTING & GROWING

- Women farmers are particularly time poor during land preparation, planting and harvest
- Late or incorrect inputs can trap smallholder farmers in a cycle of debt and exclusion

3

HARVEST & SALES

- Exclusion from sales related information & decision-making inhibits women's confidence in loan uptake
- In brokering market relationships, FOs increase credit worthiness & productivity of their members
- The partial value proposition for weather index insurance is not always convincing and often misunderstood

4

POST-SEASON

- Women farmers seek flexibility in how and when they repay loans
- Without a direct relationship with providers, clients struggle to hold them to account

Insights that illustrate the specific needs of women farmers.
Other insights encompass needs of all farmers.

PRODUCT CONCEPTS

TURNING INSIGHTS INTO PRODUCT CONCEPTS

Mercy Corps used Human-centered design (HCD) research (Figure 1) to achieve the goal of formulating strategies designed to improve financial inclusion for female smallholder farmers in Tanzania.

The strategies developed through this study (Figure 2) were driven by **research**, gathering insights and experiences shared by female smallholders. Through in-depth interviews and analysis 12 product **concepts** that match the gaps in service and engagement female smallholders experience were identified. Among those 12 concepts, 8 were chosen to be further developed into **prototypes (what we call products)** to form a **strategy** for female smallholder financial inclusion based on the resonance with project partners.

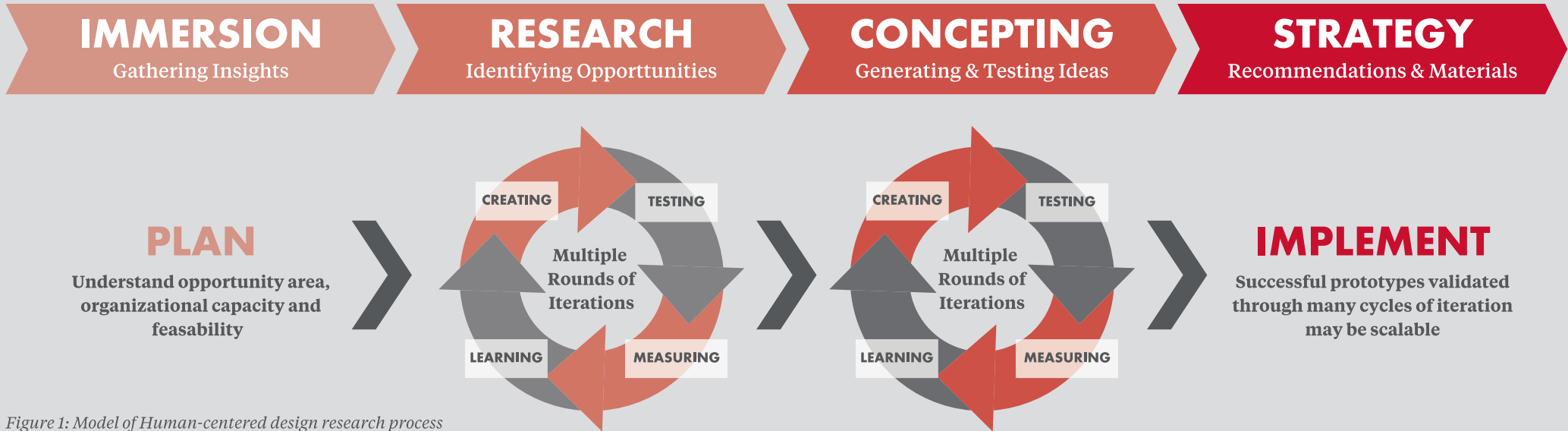


Figure 1: Model of Human-centered design research process



Figure 2: Mercy Corps AgriFin application of HCD model

TURNING INSIGHTS INTO PRODUCTS

FEMALE SMALLHOLDER SPECIFIC INSIGHTS

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PRODUCTS & STRATEGY FOR IMPLEMENTATION

To further refine each of the 8 products selected, opportunities for incentivising and training stakeholders to drive uptake and adoption were identified for each proposed **product**.

PRODUCT CONCEPT	PRODUCT DESCRIPTION	OPPORTUNITIES FOR INCENTIVISING UPTAKE	OPPORTUNITIES TO TRAIN STAKEHOLDERS TO ENABLE UPTAKE
FEMALE LOAN AGENTS	Increase loan uptake in women farmers by electing a woman loan agent, responsible for engaging and signing-up women clients in the community, receiving commission on repayment.	Loan agents receive a commission based on the portion and number of clients they sign-up and repay.	Multi-day, interactive in-person training and practice around loan terms, basic agronomy (in relation to target crop), and engaging women.
FLEXIBLE DIGITAL REPAYMENTS	Provide flexibility in loan repayment facilitated through a USSD menu to review loan status, repay early and save on interests.	Reduced interest rate for early loan repayments, reflecting that banks can recycle that money and potential savings from digitised (rather than in-person) loan collection.	In-person training, with live demonstration and tutorials, bundled with trainings on loan terms during the pre-season.

PRODUCTS & STRATEGY FOR IMPLEMENTATION (CONT'D)

PRODUCT CONCEPT	PRODUCT DESCRIPTION	OPPORTUNITIES FOR INCENTIVISING UPTAKE	OPPORTUNITIES TO TRAIN STAKEHOLDERS TO ENABLE UPTAKE
GROUP LIABILITY LOANS	Collateralise input loans via group liability in women’s savings and credit groups.	No entry cost (compared to FO membership) and low / no collateral required, plus increased convenience.	Sensitise potential clients on the terms of the loan, and how group liability works, via FO and savings group meetings/
FARMER ORGANISATION MEASURES	Reward FO efforts and attainment in serving women farmers in their community, as part of a regional or national competition.	In-kind, non-exclusionary prizes, e.g. lower interest rates for input loans next season.	PASS agents explain competition criteria and assessment to FO leaders during the business planning and loan guarantee process, then report results the following season.
FINANCIAL PLANNING TRAININGS	Support prospective clients to itemise, estimate and total farming costs and revenues, building the confidence necessary to take credit risks.	Free advice on how to better understand and plan farm finances.	In-person, interactive group training supplemented by video content on best-practice.

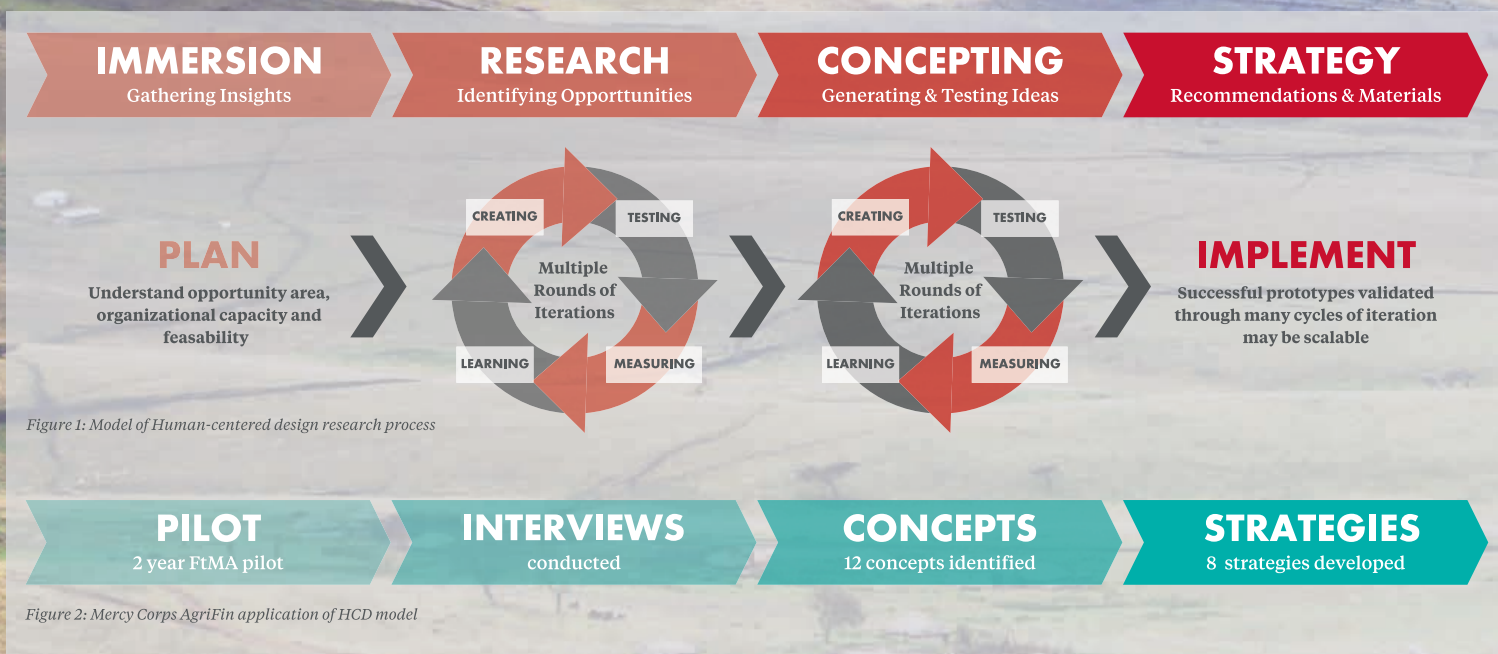
PRODUCTS & STRATEGY FOR IMPLEMENTATION (CONT'D)

PRODUCT CONCEPT	PRODUCT DESCRIPTION	OPPORTUNITIES FOR INCENTIVISING UPTAKE	OPPORTUNITIES TO TRAIN STAKEHOLDERS TO ENABLE UPTAKE
CLIENT TESTIMONIALS	Build knowledge and trust in new agriculture finance products via client testimonials on the process and benefits, told in-person during FO meetings.	Contextually relevant advice from a relatable member of the community who has first hand experience in uptake, use and repayment of input loan.	In-person, during introduction of new loan products.
CROP PRICING FOR WOMEN	Target women with relevant crop price information to elevate their importance in household negotiation with offtakers.	Latest prices of nearby markets available on phone without chasing middlemen, demystifying selling ecosystem, allowing participation in price negotiation, increasing confidence in loan uptake.	In person group training during FO meetings, potentially driven through a loan agent model (concept 1).
OPT-IN ADDITIONAL INSURANCE	Enhance and simplify the value proposition for farm insurance by covering other causes for loss.	Opportunity to increase insurance coverage.	In-person group training via FO meeting during pre-season.

CONCLUSION

CONCLUSION

The ideas generated here will define the next two years of insurance product services in Tanzania for smallholders. Having taken into account the specific needs and challenges of female smallholder farmers we expect to see an increase in their inclusion and participation.



STRATEGIES

8 strategies developed

- Female Loan Agents
- Flexible Digital Payments
- Group Liability Loans
- Farmer Organisation Measures
- Financial Planning Trainings
- Client Testimonials
- Crop Pricing for Women
- Opt-in Additional Insurance

RELATED CASE STUDIES

FEMALE LOAN AGENTS: BANK SAKHIS

- Self-Help Groups (SHG) are a community-based group found in India and other Asian countries. Members are usually women living in proximity, all voluntarily coming together to save small sums of money, on a regular basis. They pool their resources to become financially stable, taking loans from their collective savings in times of emergency or financial scarcity, important life events or to purchase assets.
- Moreover, the liability between group members allow them to develop saving behaviours which eventually makes them creditworthy for financial service providers. As part of a broader effort to improve financial inclusion, banks in some regions of India have appointed “Bank Sakhis” (a Hindi phrase for female-friend of the bank) whose role is to make it comfortable for women in SHGs to freely reach out to her, as well as promote and facilitate banking products to be provided to the group.
- The bank selects these Bank Sakhis on predetermined criteria such as membership of a SHG and been involved in conducting banking and bookkeeping activities of the group. Many credit the Bank Sakhi model with enabling women to open bank accounts and access other important financial services. Further, the approach is seen to have led to the economic empowerment of the Bank Sakhis themselves as they build their capacity to deliver (and earn money from) a wide range of banking services.



FLEXIBLE DIGITAL PAYMENTS: M-SHWARI

- M-Shwari is a paperless banking service offered by Safaricom and enabled by the Commercial Bank of Africa in Kenya. Customers are able to set up an bank account via M-PESA (Safaricom's ubiquitous money transfer service), without having to visit a bank or fill in any forms. Money deposited in the account automatically earns interest (up to 6.65% p.a), though customers are also able to access higher interest rates if they commit to saving over a fixed period of time.
- In addition, customers are able access microloans (minimum ~\$1) at anytime with a one-time 7.5% fee (interest), with the principal and interest to be repaid anytime within one month using M-PESA.Shwari, meaning "calm" in Kiswahili, reflects the product's positioning as a convenient way to access the benefits of formal banking.
- The product scaled to 18m customers in 2017, because it emulates the way low-income Kenyans manage their money, balancing their short-term need for liquidity with providing a return for the future. It does so via an easy-to-use interface, accessible on feature phones, that integrates with the M-PESA platform which customers are already familiar with.



GROUP LIABILITY LOANS: ONE ACRE FUND

- Since 2013, One Acre Fund (OAF) has served 50,000 (predominantly women, maize) farmers in southern Tanzania. Their integrated platform, delivered via extension officers, provides farmers with input loans (av. \$123) and distribution, crop insurance and advisory services. OAF clients typically apply the inputs and adopt advice on one acre of their land, achieving a net \$218 income increase per farmer in 2017 (or a 148% ROI).
- OAF does not lend to Farmer Organisations, preferring a group model where members are liable for each other's lending. In addition to receiving an input loan the following season (likely the strongest incentive), farmers who repay receive in-kind benefits such as calendars, tea and invitations to 'mandazi days'. Repayment rates were 99% in 2017 and 91% in 2018 (during the maize market price crash).
- By primarily engaging group leaders, each extension officer can manage and provide support to up to 400 loan clients. 60% of loans are disbursed using mobile money and 40% is disbursed in cash to group leads. Loan clients pay 20% interest APR and, at run-rate, it's anticipated OAF's model in Tanzania will be 70% sustainable excluding R&D costs, i.e. 30% of field costs will be donor funded.





ANNEX



GLOSSARY OF TERMS: DESIGN

TERM	DEFINITION
Product Concept	Product concept is an early phase in product development in which the components of a product is laid out. Various aspects of the product are considered, such as user experience, usability, technology, etc. This is used as a blueprint for detailed product development in later stages.
Insights	Insights are ideas or notions expressed as succinct statements that interpret patterns in your research and can provide new understanding or perspective on the issue.
User Story	A user story describes the type of user, what they want and why. A user story helps to create a simplified description of a requirement.
Card Sort	A card sort is a quick and easy way to gather feedback from someone on what matters most to them. Providing users with a deck of cards, each with a word or single image, and asking them to rank them in order of preference can yield insights into their priorities and tradeoffs. The card sorting process can also spur deeper conversation about what a person values and why.
Journey Map	A journey map is a framework that can help thinking through key moments for a user as they experience a product/ service. It helps illustrate how a user first becomes aware of the solution, how they make a decision to try it, what their first interaction and engagement is like, how they might become a repeat user, and how the solution might ultimately impact their life.
Prototype	A prototype is a model built to test a concept with users in order to learn from them. A prototype is a representation of a concept designed to understand, explore, and communicate what it feels like to engage with a solution. Prototyping helps understand real, working conditions rather than a theoretical conditions.

GLOSSARY OF TERMS: FARMING

TERM	DEFINITION
FO	Farmer Organisations (FO) have a defined membership, purpose for assembling and organizational structure, established to support members in pursuing their individual and collective interests.
Inputs	The resources that are used in farm production, such as chemicals, equipment, feed, seed, and energy.
SACCO	The Savings and Credit Cooperative Societies (SACCOS) are credit society dedicated to the promotion of thrift among its members and creation of a source of credit for them at competitive rates of interest through financial intermediation.
AMCO	The primary functions of agricultural and marketing co-operatives societies (AMCOS) is dealing with production and marketing of member based crops prod-uct and facilitating production in farmlands following cooperative principles of good governance, cooperation, voluntarily and equality.

THANK YOU!

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LEESA SHRADER
AGRIFIN PROGRAMS DIRECTOR
LSHRADER@MERCYCORPS.ORG

JOHN MUNDY
TANZANIA COUNTRY MANAGER
JMUNDY@MERCYCORPS.ORG

ELENA HOLTKOTTE
STRATEGIC LEARNING AND COMMUNICATIONS LEAD
EHOLTKOTTE@MERCYCORPS.ORG

Dalberg Design



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