

**INNOVATE SIDE EVENT**

# **Learning Journeys of Smallholder Finance and Innovation Adoption**

**30 SEPTEMBER 2019**

**MEDA INNOVATE LEARNING SERIES**

# AGENDA

| Time  | Action   |
|-------|--|
| 1400h | Welcome and introduction – Clara Yoon  |
| 1410h | Present White Paper – Calvin Miller <ul style="list-style-type: none"><li>• Presentation of key lessons of INNOVATE Paper “Fostering smallholder investment and innovation through inclusive financial services”</li></ul> |
| 1420h | Partner Case Innovations <ul style="list-style-type: none"><li>• Bidhaa Sasa</li><li>• Dodore</li><li>• World Relief Rwanda</li></ul>  |
| 1500h | Discussion groups <ul style="list-style-type: none"><li>• Q/A discussion with partner innovation presenters</li><li>• Identification of lessons and enabling environment support and constraints</li></ul>                 |
| 1545h | Wrap-up and closing <ul style="list-style-type: none"><li>• Summary of policy issues to address</li><li>• Closing</li></ul>  |



# project objective

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- Assessing the potential of **non-traditional financial services** to enable **large scale adoption of agricultural innovations** among **men and women smallholder farmers** in South Asia, South America and East Africa
- and using the lessons to inform policymaking and programing on agricultural development.





# project overview



March 2017 – March 2020



Funded by IDRC



10 projects/partners





# project portfolio



**MALAWI:**  
1. AGRONOMY  
TECHNOLOGY LIMITED



**NEPAL:**  
5. IDE



**PERU:**  
8. I-DEV INTERNATIONAL  
9. GLOBAL CANOPY



**KENYA:**  
2. BIDHAA SASA  
3. COIN22



**BANGLADESH:**  
6. CARE BANGLADESH



**BOLIVIA:**  
10. CIDRE IFD



**RWANDA:**  
4. WORLD RELIEF



**PAKISTAN:**  
7. PAKISTAN MICROFINANCE  
NETWORK

10 partners across 8 countries – [read more here](#)

# learning agenda

## key themes

### Customer Centricity



How does customer centricity enable firms/organizations design and offer products and services that meet smallholder customer needs and demand?

### Smallholder Products & Services



What key features and terms of financial products/services smallholder require to adopt new innovations or technologies? // What are the key features of new innovations/technologies smallholders require (or prefer) to try and buy?

### Smallholder Household Norms



How do smallholder households prioritize business decisions, purchases and investments for upcoming crop cycles alongside competing household needs?

### Policy and Ecosystems Change



What are the policy implications to enable firms/organizations and governments to better serve and align products (extension, finance and technologies) to meet smallholders needs?



# today's speakers

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**Calvin Miller**

MEDA Consultant  
Agricultural and Rural Finance Expert



**Hillary Yiminyi  
Munialo**

Bidhaa Sasa  
Research and Communication Officer



**Vyone Mingate**

Dodore Kenya Ltd  
Project Manager - Agriculture



**Jean de Dieu  
Habiyaemye**

World Relief Rwanda  
Economic Development Coordinator



# LEARNING JOURNEYS OF SMALLHOLDER FINANCE AND INNOVATION ADOPTION

AFRACA INTERNATIONAL CONFERENCE ON BEST PRACTICES IN RURAL  
AND AGRICULTURAL FINANCE | **MEDA INNOVATE SIDE EVENT**

NAIROBI, KENYA    MONDAY SEPTEMBER 30, 2019



# INNOVATE PROGRAMME RESEARCH AND PARTNER LESSONS

## **Objectives:**

- Present INNOVATE White Paper on Catalytic Agricultural Finance
- Learn from partner case study innovations
- Discuss lessons and policy recommendations

Calvin Miller, MEDA Consultant

# LESSONS FROM LITERATURE REVIEW

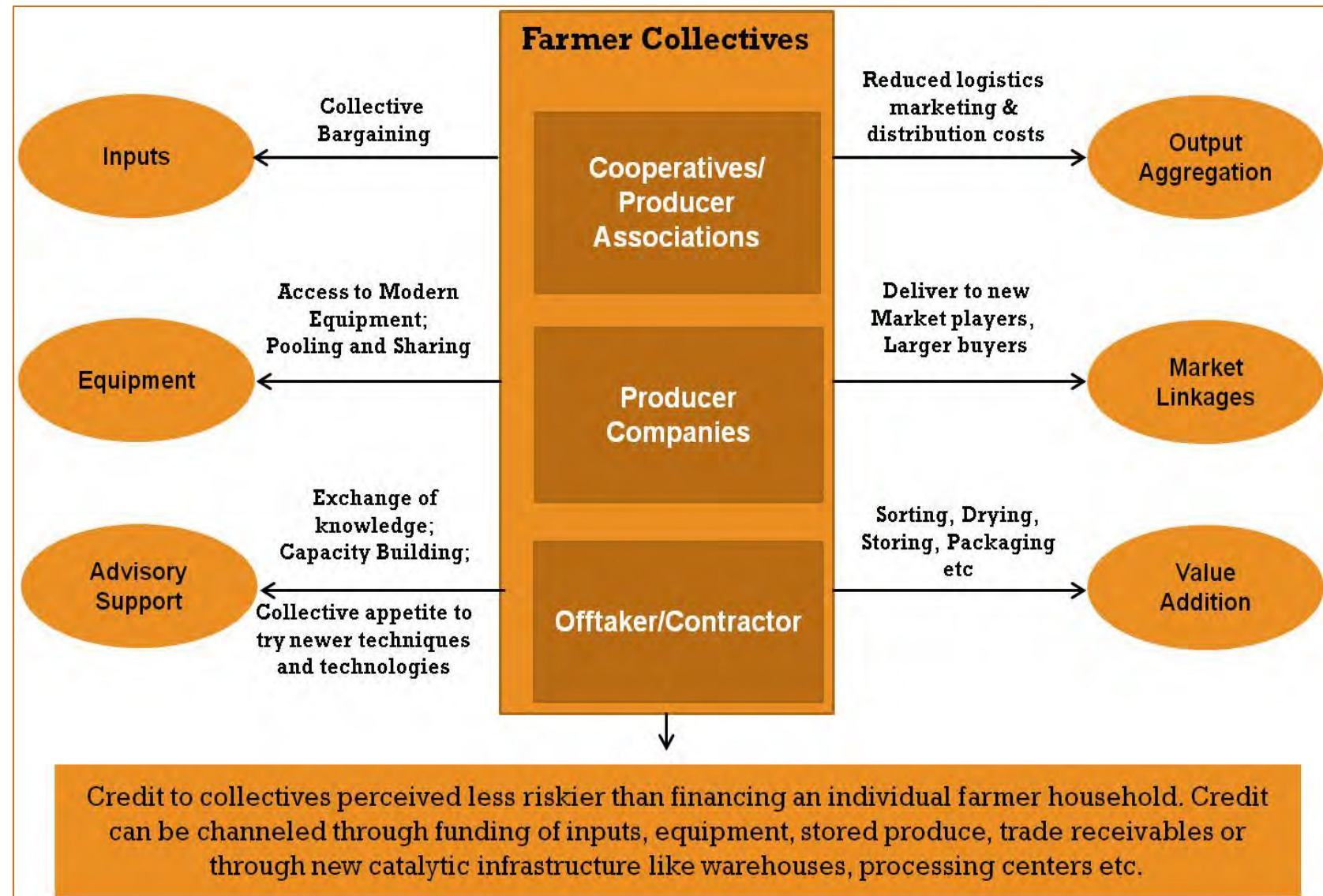
- Agricultural households are complex with diverse, multifaceted incomes and cash flows
  - Microfinance and supply driven banking services are not designed accordingly
  - Finance is a catalyst; is a part of an smallholder ecosystem of markets, services and context
  - Client centric financial and non-financial design interventions are required
- Agricultural value chain finance is an appropriate approach for some
  - The market information and linkages, identification of effective points of finance and relationships make it a strong approach
  - But a majority of smallholders are not in organized value chains
- Men and women face difference circumstances, interest and needs
  - Savings, often for family events, are particularly important for women
  - Lack of collateral is particularly limiting for women, and youth



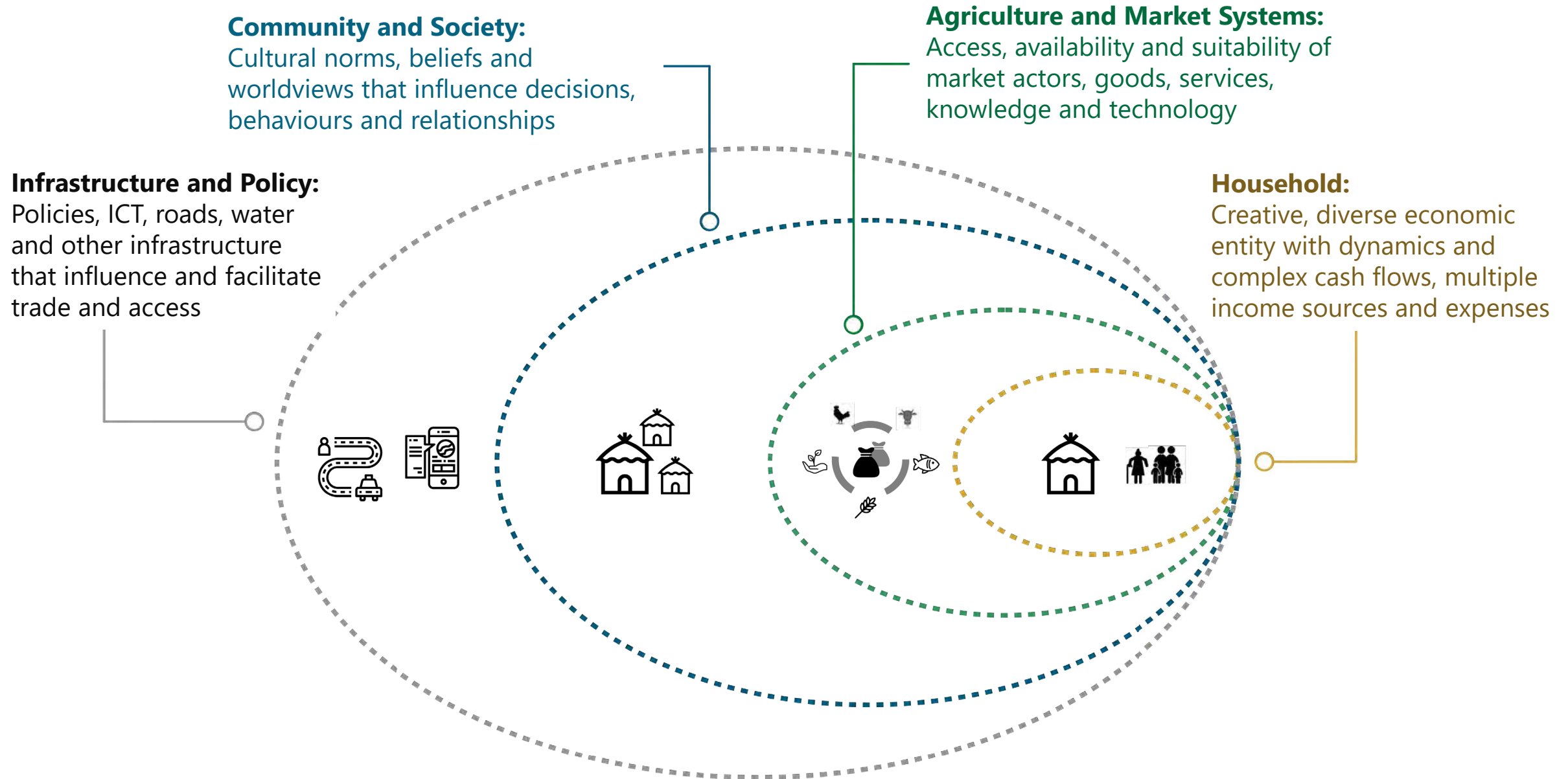
# INNOVATE OVERVIEW

In India, Samunnati revised its approach from “silo” finance to a “longitudinal” participative approach. It found that for smallholder inclusion, financial intermediation needs to cut across all interventions and incorporate all stakeholders.

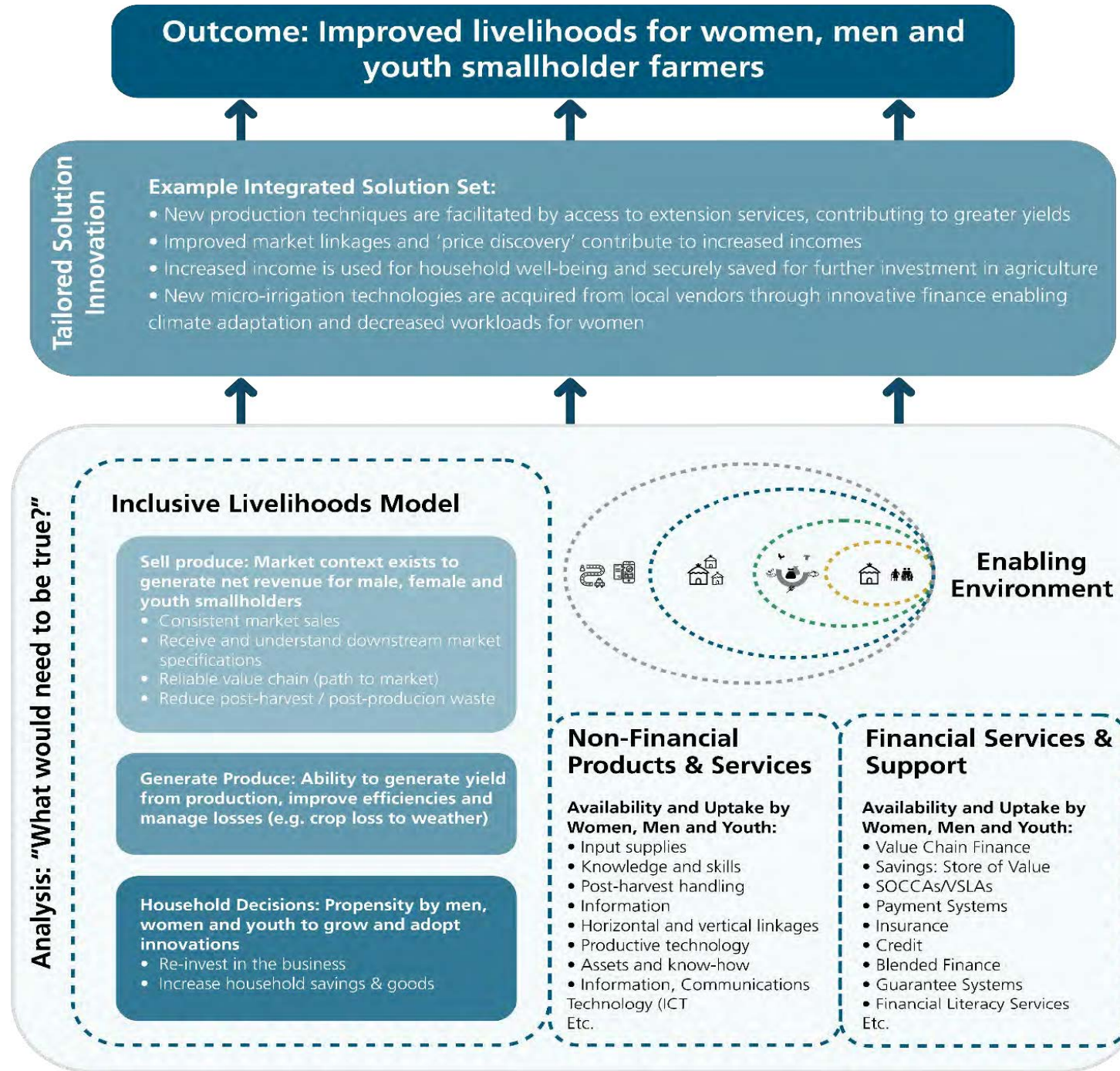
(Source: Samunnati)



# Interconnected Systems



# INCLUSIVE SOLUTIONS





# MARKET SEGMENTS AND CHARACTERISTICS

| Market Segment  | Characteristics   |
|---|---|
| Smallholder farmers – Subsistence                                 | <ul style="list-style-type: none"><li>➤ Family consumption, traditional food crops and animals</li><li>➤ Little to sell; largely disconnected from inputs, markets and services</li></ul>   |
| Smallholder farmers – Subsistence + diversified incomes           | <ul style="list-style-type: none"><li>➤ Semi-commercial farming, selling surplus</li><li>➤ Storage and cash constraints and high post-harvest losses</li><li>➤ Multiple, diverse income sources</li></ul>                                       |
| Commercial farmers – “Loose” value chains in low value markets    | <ul style="list-style-type: none"><li>➤ Commercial, traditional markets with inconsistent and fluctuating prices</li><li>➤ Limited input suppliers, buyers and cash</li><li>➤ Low profits and use of improved inputs and technologies</li></ul> |
| Commercial farmers – “Loose” value chains in higher value markets | <ul style="list-style-type: none"><li>➤ Commercial local grocery, buyers or open markets with fluctuating prices</li><li>➤ Connected to input suppliers; potential to access agronomy services</li></ul>  |
| Commercial farmers – “Tight” or coordinated value chains          | <ul style="list-style-type: none"><li>➤ Reliable markets, grown to specifications, with hedging opportunities</li><li>➤ Connected to input suppliers and specialized agronomy services</li><li>➤ Value chain linkage integration</li></ul>      |

# CRITICAL ACTION AREAS

| CRITICAL ACTION AREAS  | EXAMPLE FINANCIAL PRODUCTS AND ACTIVITIES   |
|--|---|
| <b>Smallholder farming systems and resource management</b>     | <ul style="list-style-type: none"><li>• Input financing</li><li>• Longer-term finance and blended finance for technology upgrading</li><li>• Cash flow financing</li><li>• Asset based financing</li><li>• Leasing</li></ul>  |
| <b>Smallholder risks</b>                                       | <ul style="list-style-type: none"><li>• Insurance</li><li>• Guarantee schemes</li><li>• Improved cash flow-based loan assessment</li><li>• Savings</li><li>• Forward contracts and futures</li><li>• Term investment (irrigation, water control, storage)</li></ul> |
| <b>Profitability and cash flow</b>                             | <ul style="list-style-type: none"><li>• Cash flow based/flexible loan products</li><li>• Input financing</li><li>• Warehouse receipts</li><li>• Value chain financing</li><li>• Technology upgrades</li><li>• Improved back-office MIS</li></ul>                    |
| <b>Economic and social inclusion of smallholder households</b> | <ul style="list-style-type: none"><li>• Payment systems</li><li>• Digital and ICT applications (mWallet, input vouchers)</li><li>• Input vouchers and financing</li><li>• Blended finance (finance with incentives)</li></ul>                                       |

# CRITICAL ACTION AREAS

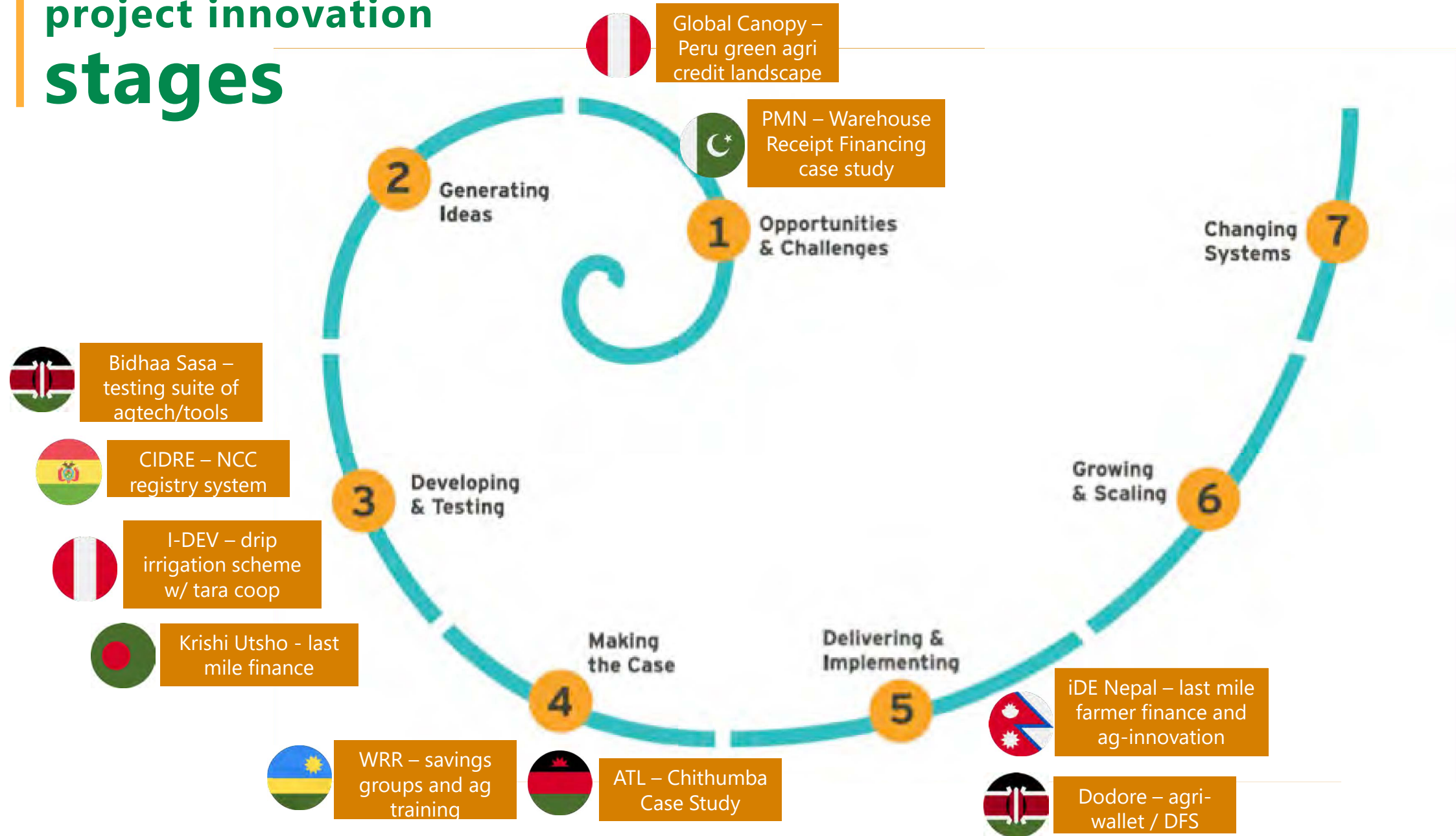
| CRITICAL ACTION AREAS  | EXAMPLE FINANCIAL PRODUCTS AND ACTIVITIES  |
|--|--|
| <b>Capacity development for smallholders and service providers</b> | <ul style="list-style-type: none"><li>• Training</li><li>• Youth finance and entrepreneurship training and mentoring</li><li>• Rural women's financial product development (flexible, non-tied loans and savings and micro-insurance)</li><li>• Smallholder organization</li></ul> |
| <b>Transaction costs and financial delivery</b>                    | <ul style="list-style-type: none"><li>• Agent banking (via input suppliers and buyers)</li><li>• Digital and ICT applications</li><li>• Input vouchers</li><li>• Remittances</li></ul>   |
| <b>Access to appropriate finance</b>                               | <ul style="list-style-type: none"><li>• Flexible, custom designed financial services</li><li>• Impact investment funds and joint ventures</li><li>• Value chain finance</li><li>• Financial incentives (shared risk guarantees)</li></ul>  |



# ROAD MAPS FOR GROWTH

1. Replicate and scale social lending mechanisms and investment funds
2. Support finance and capacity for outgrower schemes
3. Finance through points of aggregation – organized producer organizations, buyers and suppliers or warehouse operators
4. Finance direct to farmers through adapted MF approaches
5. Innovate and develop new financial products for smallholders
6. Develop digital and other technology linkage models
7. Mitigate lending risk and cost through improved loan assessment tools and training
8. Mitigate or share risk of lenders and borrowers – guarantees, insurance and hedging options

# project innovation stages



# EXAMPLES OF FINANCING INNOVATIONS FROM CASE STUDIES AND LITERATURE

Examples of response innovations to challenges and constraints to financing

Technologies for service delivery –

- iDE Nepal Commercial Pocket Approach – aggregation, last mile agro inputs VCs, private-public partnerships
- Chithumba model, Malawi – input finance, WHRs, GAP training, MIS & trade facilitation
- **Dodore agri-wallet** - digital and mobile applications
- **Bidaa Sasa** – agri tech tools and business models
- I-Dev International – mobile money and pay-as-you-go
- Collateral – use of substitutes
  - CIDRE, Bolivia – irrigation shares and forestry wood
  - Tamwell El Fellah, Morocco – guarantee schemes
- Risk
  - Progreso, Bolivia – time-proven, cash flow-based risk and loan planning
  - Colombia – national guarantee system, national agricultural insurance and price hedging with commodity exchange
  - CIDRE, Bolivia – secured transaction law development
  - **World Relief Rwanda** – training and savings/credit groups





# ***Adoption of agricultural innovation, particularly agricultural tools and goods amongst rural women***

Bidhaa Sasa women-centered finance and distribution model

# PROJECT OVERVIEW

## Hypothesis

Non-traditional finance can kick start the adoption of agricultural technologies by rural women in western Kenya.





# RESULTS TO DATE

- Five agricultural products introduced.
- 74% of the buyers are women and they pay for it.
- Most users are women.
- Good repayment rates.





# LEARNING JOURNEY

## Product identification

1. Study.
2. Product suggestions from clients

## Product testing

- Buy samples.
- Identify the hub.
- Educate test clients.
- Collect feedback.



# LEARNING JOURNEY CONT'D

## Surprising learnings

- Limited knowledge.
- Lack of access to finance.
- Women play an active role.
- Peer to peer learning is key.



# INNOVATE LEARNING THEMES

- **Customer centrality** understanding needs of customers to serve them with tailor-made solutions.
- **Smallholder household business decisions** role of women massively underestimated including decision and purchase power.
- **Adoption factors** products and services that are flexible and tailor-made: access to credit; pre- and post- sales services like delivery, warranties and repairs. Innovations that **save time, money** and make their **work easier** preferred.
- **Policy and ecosystems change:** no interactions with any government agencies

# Contact



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***Innovation-Wallet learning project***

**MEDA**  
**AGRI-WALLET**



*Provides earmarked working capital to multiple actors:*



**Credit for Buyers  
earmarked  
to pay Farmers**

**Credit and savings for  
Farmers earmarked  
to pay Merchants**

**Credit for Merchants  
earmarked  
to pay Distributor**

# PROJECT OVERVIEW

## Hypothesis:

- Farmers are willing to open an Innovation-Wallet
- Farmers with an Innovation-Wallet will save/borrow to buy innovation

# PROJECT OVERVIEW

## Methodology:

- 300 farmers introduced to Innovation-Wallet
- Opened accounts for farmers that expressed interest in saving/borrowing for a specific innovation

## Anticipated results:

- 100 farmers will open an account
- Save in their wallet (60%)
- Borrow in their wallet (30%)
- Buy an innovation with their wallet savings/loan (50%)
- Use the purchased innovation



# RESULTS TO DATE

## Anticipated results

- 100 farmers open an I-W account
  - Saved in their wallet (60%)
  - Borrow in their wallet (30%)
  - Buy an innovation with their wallet savings/loan (50%)
- Farmers are willing to save, borrow, purchase and use innovations if they believe that their production will increase
- Innovations will mostly likely give returns outside the project period. Cost of certified seed might be recouped in subsequent crop calendars as farmers recycle seed
- Improved seed varieties present the quickest/immediate way of improving yields and production compared to capital investments

## Outcome

Opened >100%

Saved >100%

Borrowed >100%

Bought >100%

# LEARNING JOURNEY

- Financial requirements are different depending on value chain hence need for tailored approach
- The target customer/segment needs CAPEX. How can Innovation-Wallet provide this whilst de-risking the farmer?
- Farmers highly impacted by weather – Insurance included in all products since Jan

# INNOVATE LEARNING THEMES

- **Customer centrality:** This is done by understanding the segment then packaging products appropriately. A smallholder farmers needs are different from any other borrower
- **Smallholder household norms:** A farmer is bombarded by competing needs. Fungibility of money means high possibility of diversion. AW supports farmers to ensure financial discipline that is very important for project success
- **Adoption factors:** Simple technology, AW sms based, interactive, increased income Investment in training
- **Policy and ecosystems change:** It is important to consider holistic approach in sustainable Agri-development. Farmer support is better with multi-stakeholder approach. PPPs will more likely support the farmer better than fragmented efforts

# Contact



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<https://dodore.co.ke/agri-wallet/>





# **Understanding the impact of savings towards innovative agricultural practices and investment**

Jean de Dieu Habiyaremye

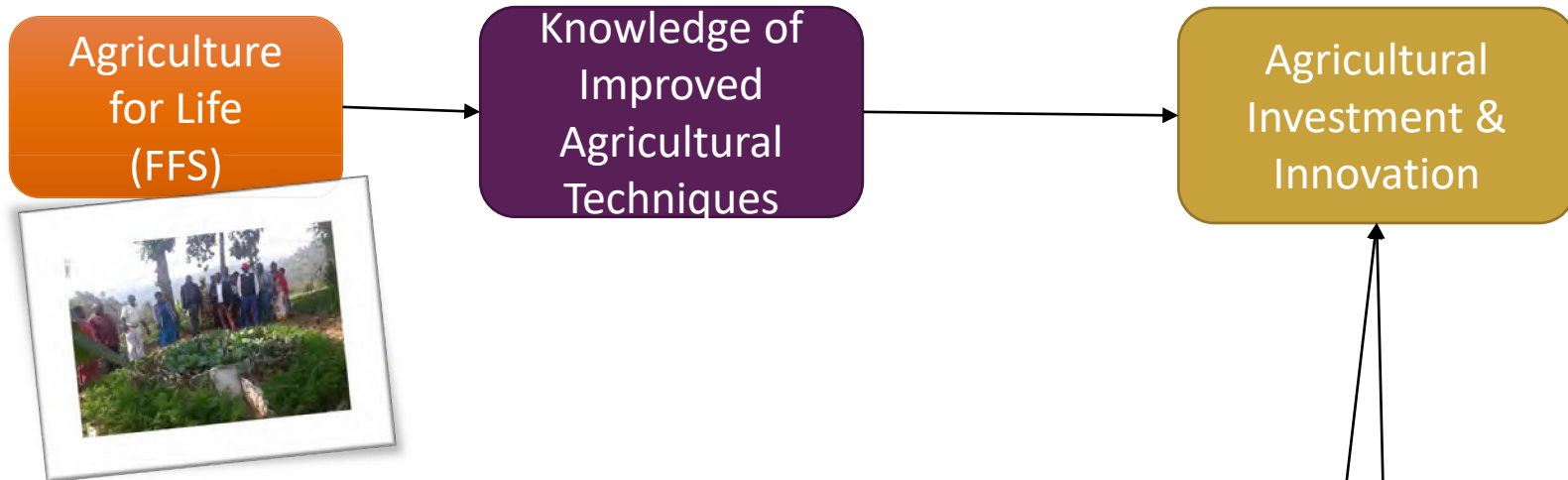
# WORLD RELIEF RWANDA

- WR's mission is to empower the local church to serve the most vulnerable
- Core Programs
  - General Church mobilization (Unity of churches)
  - Water Project (providing water filters, rain harvesting systems, and education)
  - Child and Family Strengthening
  - Health and Nutrition
  - Savings for Life (VSLA based savings groups)
  - Agriculture for Life (farmer field schools based model)

# PROJECT OVERVIEW

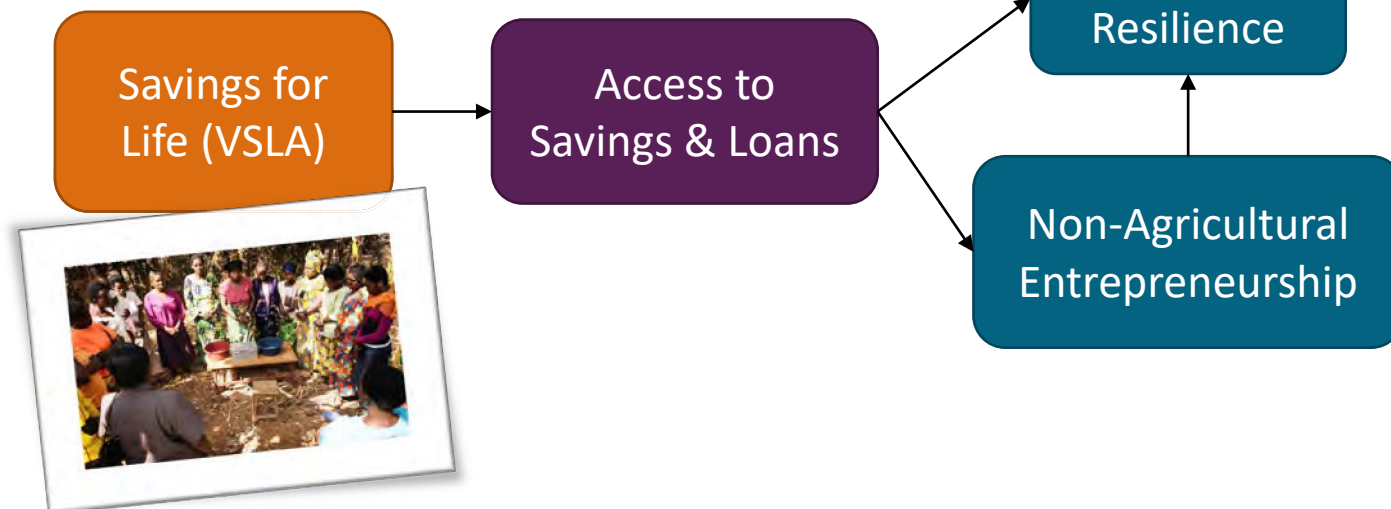
## AGRICULTURE FOR LIFE:

- 20-25 farmers per group
- Meet weekly to learn agricultural techniques
- Learn and practices activities on demonstration plots
- Promotes social cohesion and knowledge sharing
- Increases access to markets
- Nutrition and WASH education

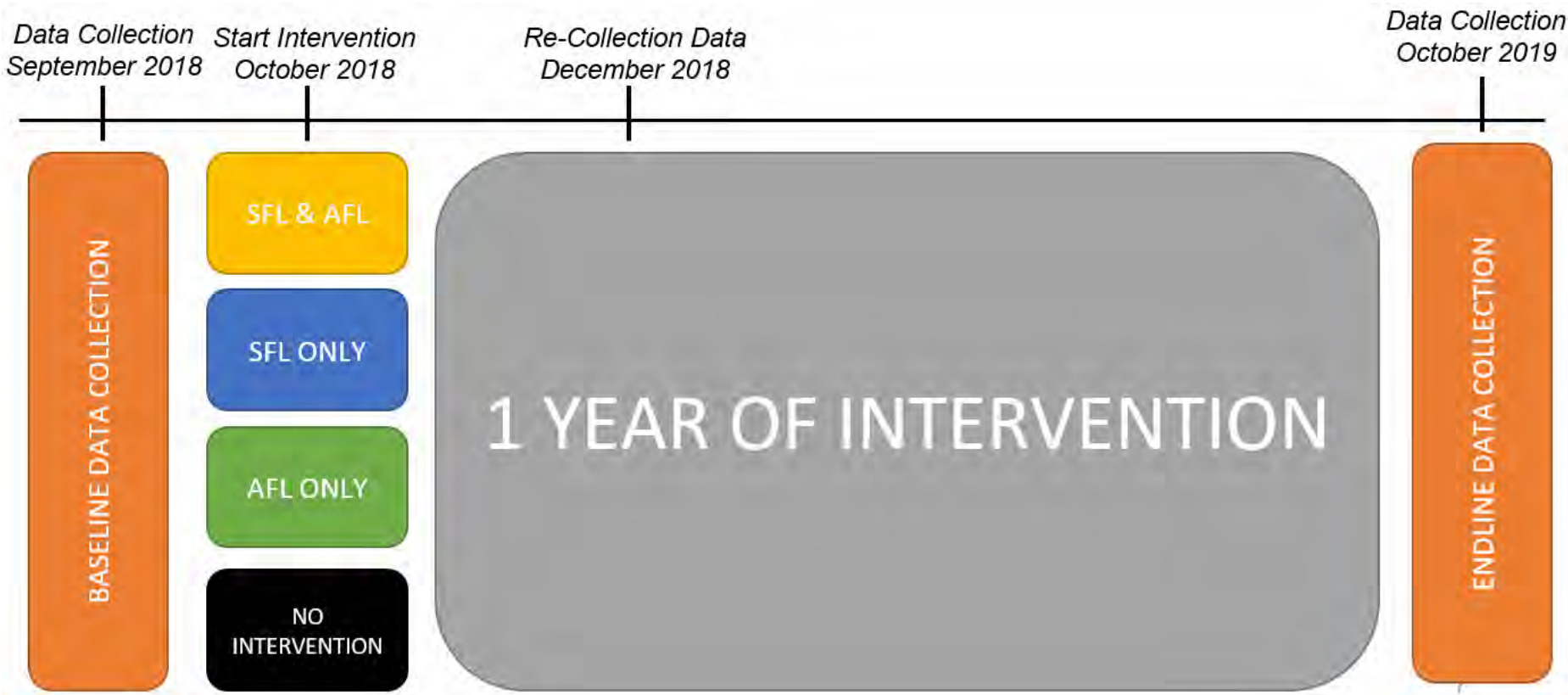


## SAVINGS FOR LIFE:

- 15-25 low income individuals per group
- Meet weekly to save
- Loans all for entrepreneurship & investment
- Loans are repaid with interest
- A social fund for emergencies
- Share-out of individual savings after 9 months



# PROJECT OVERVIEW



## RESEARCH QUESTIONS:

- Do Savings Program have a positive effect on the adoption of innovative agricultural investment and practices?
- When SFL and AFL implemented together, do these programs have an enhanced effect on adoption of innovative agricultural investment and practices?



# RESULTS TO DATE

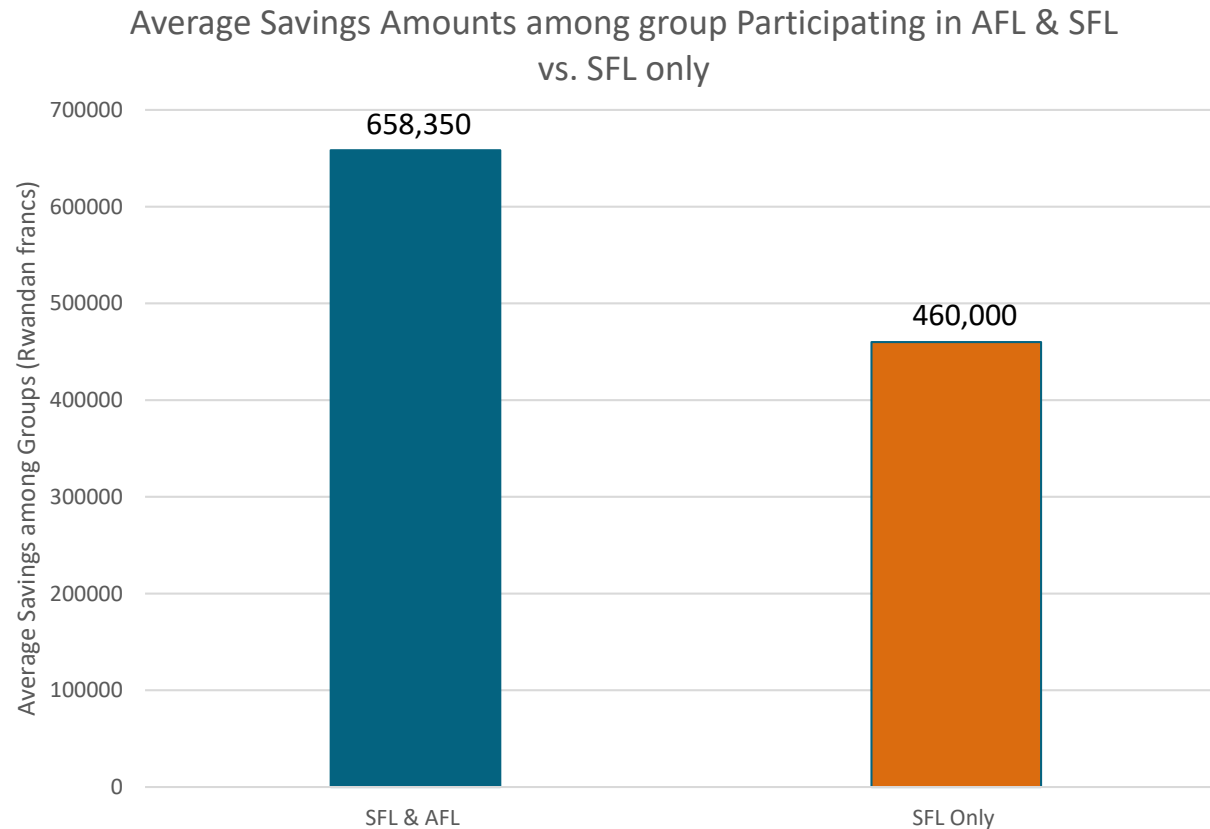
## BASELINE DATA:

|                         |                                   |   |   |                                |                               |
|-------------------------|-----------------------------------|---|---|--------------------------------|-------------------------------|
| 23.7%                   | 16.0%                             | \$67.57   | 337.15 kg                                 | 36.5%                          | 64.8%                         |
| Saved in the last Month | Took out a loan in the last Month | Average Agricultural Investment (USD) in the previous 12 months | Crop Yield in the previous growing season | Women's Minimum Diet Diversity | Women's Joint decision Making |

## REPORTS FROM THE FIELD :

- Farmers participating in both Savings for Life and Agriculture for Life used their savings on the following agricultural purchases:
  - Larger plots of land
  - Fertilizer
  - Seeds for crops such as Maize and Irish Potatoes
- 4 out of 10 groups engaged in SFL and AFL used their savings to hire big land and make agricultural purchases (Ex. One group took 173 US dollars of savings to invest in agriculture – hiring a plot, purchasing seeds, fertilizer and pesticides)
- AFL only groups want to also participate in SFL. They see the benefits of saving. All 4 AFL groups started their own informal savings group where they pool money together to invest in the expansion of their agriculture activities.

# GRAPH COMPARING SAVINGS IN AFL & SFL GROUPS VS SFL ONLY GROUPS



On average, groups participating in Savings for Life and Agriculture for Life save **198,350 Rwandan francs** more than those only in Savings for Life, however this difference is not statistically significant (p-value = 0.075)

# LEARNING JOURNEY

- Ongoing analysis for continuous learning
  - Upon final evaluation completion, we will better understand **how** our programs are interacting to improve agriculture investment and innovation
  - And as a secondary effect, how they impacting dietary outcomes
- Challenges
  - Farmers in only the Agriculture for Life want to learn more about savings and participate in Savings for Life
  - Climate change – Farmers engaged in Agriculture for Life were given additional mitigation strategies, such as anti-erosion techniques and pesticide use

# INNOVATE LEARNING THEME: POLICY CHANGE

- Current feedback from the field suggest savings programs promote security, resiliency, and encourage agriculture investment and innovation.
- Farmers desire to learn more about savings to improve their ability to invest in agricultural innovation.
- Savings and agricultural programs should continue to encourage agricultural investment as a method to improve crop yield & diversity and also household food security and dietary outcomes.
- While farmers appreciate lessons promoting HH Joint decision making, more innovation is needed to address low male attendance.
- The endline data collection will further enable to us to assess the interaction of SFL and AFL and the impact on innovative agricultural practices and investment.



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<https://worldrelief.org/rwanda>

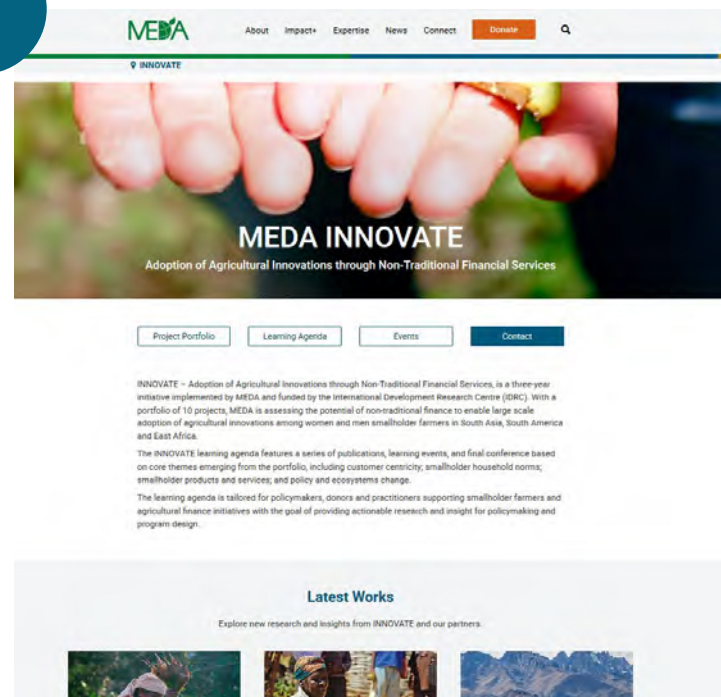
# DISCUSSION

Open discussion regarding observations on replicability and on policy issues related to the INNOVATE examples and presentations

- What insights come to your mind as you consider how the companies responded to their customers' financing needs? How have they altered their business models to account for customers' cashflows?
- How might non-traditional finance offerings influence social norms around household decision-making on agricultural innovations?
- What policy recommendations could improve the enabling environment and support the non-traditional finance experiences and innovation(s)?
- What policy initiatives or changes could improve the enabling environment and support the innovations needed for systemic change?

# follow our learning series

1



visit our website  
[www.meda.org/innovate](http://www.meda.org/innovate)

2



## Subscribe to the MEDA INNOVATE Newsletter

Sign up for the MEDA INNOVATE newsletter to engage with our insights, learning resources, and news about upcoming events focused on non-traditional finance models, products and services with potential for large-scale smallholder innovation adoption.

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Email Address \*

First Name \*

Middle Name

Last Name \*

Role

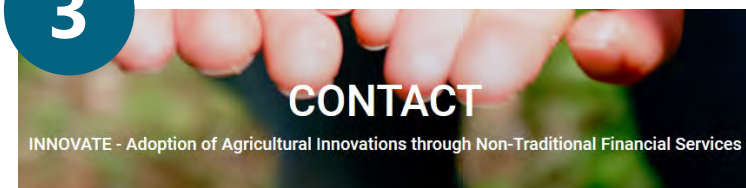
Organization \*

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3



INNOVATE Project Portfolio Events Learning Agenda

Sign up below for the INNOVATE newsletter to receive updates about research assessing the potential of non-traditional finance to promote agricultural innovation adoption among smallholder farmers across South Asia, South America and East Africa. **Contact us: [innovate@meda.org](mailto:innovate@meda.org)**  
[Click here to explore our past newsletters.](#)

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