

Asset Financing for Smallholder Farmers

Insights, Impact, and Challenges

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Project Overview

*“The estimated global funding gap for agriculture financing is **\$170 billion.**”*

Accion, with support from the Bill & Melinda Gates Foundation, explored **demonstration models** to offer affordable financing options for **productive assets** in India and Kenya. This project aimed to **explore** the following hypothesis and **learn**:

- How does leveraging partnerships in agriculture support scale, particularly focusing on developing demonstration models for asset financing with smallholder farmers in focus?
- How does intentional product design contribute to driving adoption of financial accessibility among smallholder farmers and addressing their specific needs?
- How can concerted efforts and systems for asset ownership be included in the project to enhance women's empowerment and agency among women smallholder farmers?

Project Components



Research



Customer
Engagement



Product
Development



Partnerships &
Capacity Building

OEM-AgTech

Milk receipt-based model (Karnataka):
Leverages credit rails and milk pouring data.



OEM-FSP

Product bundling (Gujarat): Uses product bundles to offer bio-digesters through a cattle loan



OEM-FaaS

Program financing (Maharashtra): De-risks a cluster through technical assistance with the assets & market linkage.



OEM-FSP

Asset financing model (Kenya):
Offers financing for the purchase of water tanks and chaff cutters.



Project Outcomes Achieved

Outcome 1: Improved Access to Finance for Productive Assets:

Access to financing for smallholder farmers (SHFs).

- **83%** opted for financing; **32%** could not purchase biodigesters without it.
- Convenience of instalment payments was crucial, especially for customers benefiting from EMIs.
- **94%** stopped using firewood; **82%** discontinued chemical fertilizers.

Outcome 2: Improved Household Economic Outcomes:

Cost savings or improved incomes from biodigester use.

- **95%** experienced increased income due to LPG savings.
- Savings redirected to essential needs (e.g., school fees, livestock).
- Environmental Impact: Reduction of **749.125 metric tons** CO2 emissions annually.

Outcome 3: Improved Livelihoods of Women SHFs:

Improved quality of life and increased autonomy.

- **91%** reported time savings; **94%** noted improved quality of life.
- Enhanced health outcomes by reducing respiratory issues.
- Faster cooking times and less stress from managing cooking resources.

4 Financing Products

Developed through the program

370+ Loans

55 women SHFS

2,500+ Farmers Reached

Through mass awareness campaigns

20+ Potential Partners

Identified across India and Kenya, 9 onboarded

80+ Field Staff Trained

On customer engagement

12 Videos Developed

To demonstrate the benefits of biodigesters ownership

38,000+ Impressions

On social media

Key Learnings and Insights

Things that worked

Partner collaboration improvements: Risk-sharing mechanisms were crucial to motivating Financial Service Providers (FSPs) to adopt new asset lending products and models.

Ecosystem building: The role of a catalyst is vital in stitching the ecosystem together. Strengthening collaborations across various players requires identifying and understanding the levers of trust.

Catalyzing go-to-market (GTM) efforts: Reimagining customer outreach through tailored approaches proved valuable in reaching customers effectively.

Institutional capacity building: Reinforcing internal capabilities was essential to meeting evolving customer needs and sustaining product offerings.

Women-centric marketing: Adopting marketing frameworks focused on women's experience that highlight benefits, trust-building, and financial transparency—encouraged adoption

Challenges

High cost of credit: Microfinance credit was prohibitively expensive, leading to preference for cheaper SACCO loans

Restructuring delays: Key partners like Copia exited or underwent restructuring, slowing the onboarding of alternative OEMs

Gender-specific barriers: Men gatekept women's access to finance; women often lacked agency to make financial decisions themselves

What could have been done differently?

Faster pivoting in partnership strategies: A more rapid restructuring of the OEM partnership might have mitigated disruptions

More structured gender-sensitive outreach: Training male field officers in gender-intentional communication and organizing workshops earlier will improve engagement with female customers

Opportunities for collaboration

Scaling Green Asset Financing with Climate Incentives

Expand into electric vehicles, water-efficient agriculture systems, and introduce carbon credit-linked loans to offset repayments or generate income.

Blended Finance Models with Private and Philanthropic Partners

Leverage FLDGs to attract private capital and develop lease-to-own products with OEMs to make renewable assets more affordable.

Digital Platforms for Asset Tracking and Portfolio Management

Create centralized platforms for real-time tracking, using IoT sensors to monitor asset performance and improve underwriting models.

Pay-for-Performance Models for Women-Led Green Enterprises

Develop financing incentives tied to sustainability milestones and launch MSME accelerators to provide technical support, finance, and certifications.

Team Information

Vishal Ajmera is the Senior Director of Digital Financial Products in Accion's Advisory based in India. In this role, Vishal works on the creation of innovative, scalable & fit-for-purpose financial products that respond to customer needs, such as credit and savings in emerging markets. Vishal has previously worked for Tulaa in Kenya, co-developing a credit score for smallholder farmers utilizing natural persons information, credit bureau report, agri-climatic risk and farming activity data. Vishal holds a bachelor's degree in Aerospace Engineering with a Mathematics minor from Embry-Riddle Aeronautical University & MBA from INSEAD in France & Singapore.



Arnelit Philip Mani is an Associate in Agri-finance & Gender at Accion Advisory based in India. In this role, Arnelit focuses on advancing financial inclusion and gender equity, developing innovative solutions for smallholder farmers and marginalized groups. Before joining Accion, Arnelit worked for NTPC Ltd, where she planned & implemented income generating initiatives for farmers and SHGs in project-affected villages. She also supported project proposals for policy advocacy and gender equity initiatives under "Cummins Powers Women". She holds a bachelor's degree in Economics & MBA in Rural Management from Institute of Rural Management Anand (IRMA).

