



Building Financial Sustainability : Scaling Innovative Microfinance Models in Kenya





MILLENNIUM WATER
ALLIANCE

WELCOME!

- We welcome you to share your own experiences, challenges, and lessons learned regarding sustainable financing for your programs.
 - Feel free to use the **chat box** to make comments, provide resources, or share your experiences.
 - Please use the **Q&A feature** to ask questions. You can add questions at any time, but we will be addressing questions following the panel. We will address questions in the order they are received.
 - We will be recording this webinar and will share that recording and any follow-up items after the webinar.
 - Live Captions/Subtítulos en vivo
 - Live captions are enabled translation to Spanish. To view the live captions, click this button  then click “language and speech” and then “show live captions.”
 - Los subtítulos en vivo tienen la traducción al español habilitada. Para verlos, haga clic en este botón  luego en “Idioma y voz” y luego en “Mostrar subtítulos en vivo.”
-

58.8 %

58.8% of the total workforce in Sub-Saharan Africa is engaged in Agriculture.

70%–80%

Most food (about **70%-80%**) in Africa is produced by **small-holder households**.

66.7%

Agriculture is the main source of employment for almost **two thirds of economically active African women**.



Most of the region's **poorest people** are farmers.

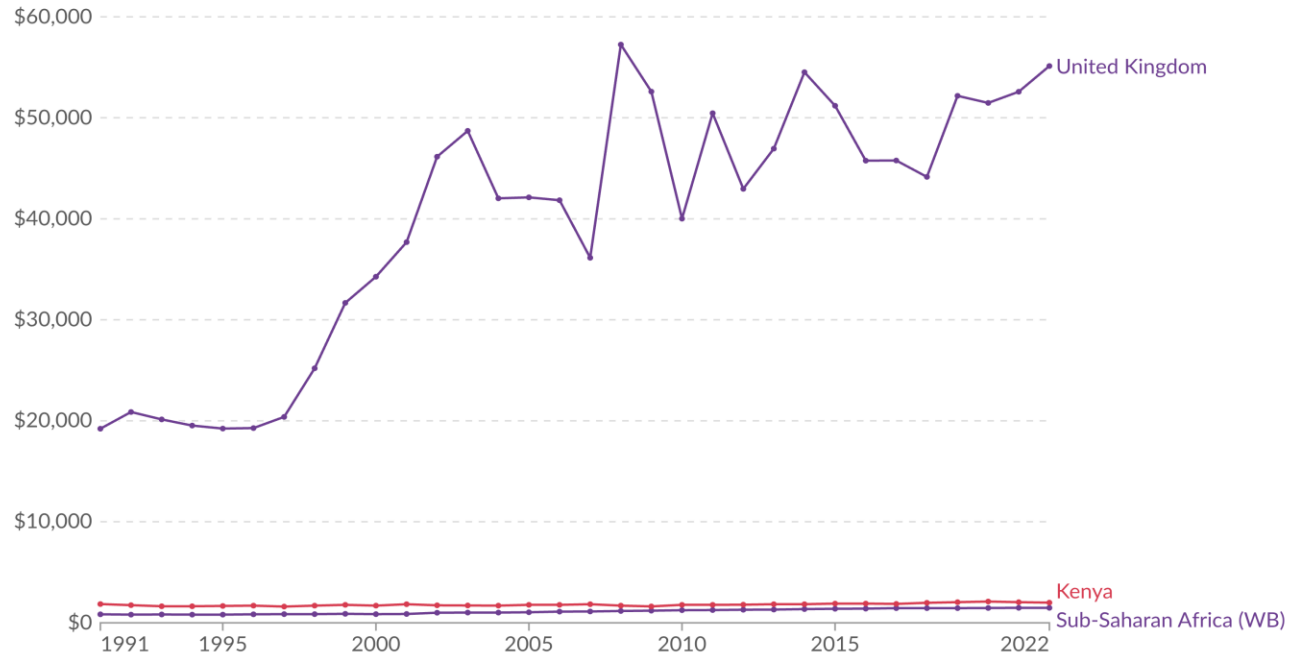


Agricultural Productivity within these small-holder farms is low and crops yield only **20%** of what could be achieved.

Agricultural value added per worker, 1991 to 2022

Our World in Data

Agricultural value added per worker¹ is calculated by dividing the amount of economic value generated from farming, forestry and fishing by the number of people that work in these sectors. This data is expressed in US dollars. It is adjusted for inflation but does not account for differences in living costs between countries.



Data source: World Bank based on data from multiple sources (2025)

OurWorldinData.org/employment-in-agriculture | CC BY

Note: Data is expressed in constant 2015 US\$.

1. Value added per worker: Value added per worker is an important measure of labor productivity. It tells us how much economic output is generated per unit of labor input. Researchers calculate the value added per worker by dividing the economic output – the number of dollars generated – by the number of workers. This then gives us a measure of the number of dollars generated per worker. This can be calculated at the aggregate level, across all sectors of an economy. Or for individual sectors, such as agriculture, industry, or services.

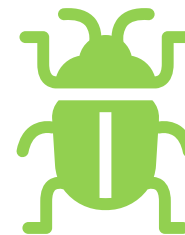
Factors Limiting Productivity of Small-Holder Farmers



Substantial post-harvest losses.



Poor/non-existent extension services and research linkages



Pest and Disease Problems.

Factors Limiting Productivity of Small-Holder Farmers



Lack of access to high-quality input/Limited use of inputs.



Reliance on rain for production, which is subject to changing climatic regimes.



Lack of small-scale irrigation facilities.

Factors Limiting Productivity of Small-Holder Farmers



Lack of access to high-quality input/Limited use of inputs.



Lack of small-scale irrigation facilities.



Reliance on rain for production, which is subject to changing climatic regimes.



Lack of access to finance/credit.

What MWA is doing to bolster Small-Holder Farming in Kenya

MILLENNIUM WATER ALLIANCE



Resilience Think and Do Tank



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Agency for Development
and Cooperation SDC



Focused on;

- Improving extension services.
- Increasing the uptake of Irrigation.
- Connecting farmers to markets.
- Supporting the rehabilitation and operation of water infrastructure

Focused on;

- Collating and synthesizing data, processes, and practices in the Agri-food space.
- Developing an ASALs-focused digital repository/dashboard for dissemination of data and information on investment potentials and opportunities.
- Brokering to link investors and opportunities.

What MWA is doing to bolster Small-Holder Farming in Kenya

MILLENNIUM WATER ALLIANCE



What MWA is doing to bolster Small-Holder Farming in Kenya

MILLENNIUM WATER ALLIANCE



Audience Poll

Please scan the code below or proceed to the following link to complete a 1-question poll:

<https://forms.office.com/r/WukBj8uTfF>

**Building Financial Sustainability
Learning Event - Audience Poll**



Panelists



Tilak Nathwani

Project Manager
4R Digital



Brian Nyagol

Group Manager, Sustainability Division
Davis & Shirtliff



Josphat Siele

County Lead / Senior Project Officer
Catholic Relief Services

Scaling Innovative Microfinance Models in Kenya: Understanding the PAYGO Model

Tilak Nathwani, 4R Digital Project Manager

Financing Mechanisms for Smallholder Farmers

Introduction to financing mechanisms and sources of finance for productive use equipment (PUE) and agricultural inputs (non-exhaustive)

Private-Public Partnerships	Joint initiatives can leverage the capabilities and know-how of both government entities and private-sector organisations. Results in strong alignment between regional demand and compelling technologies.
Government grants	Highly effective and targeted initiatives result in affordable (and often subsidised) inputs for smallholders, aligned with wider policy and trade. Can be sensitive to policy shifts and budget constraints.
Contract farming	Direct value chain link can result in operational efficiencies and value for money for inputs and productive use systems in addition to collective risk-sharing. Fair contract terms can reduce risks such as side-selling.
Farmer cooperatives	Economies of scale can lead to discounted inputs and operational efficiency, benefiting from direct value chain links. Can be sensitive to commodities with price volatility.
Savings and Credit Cooperative Societies	Well-aligned incentive structures result in fair loan terms and collective security. Access to capital and liquidity can be limited to individual member contributions if no external capital available.
Digital financial services	A wide range of DFS exist, with many products tailored to the needs of smallholder farmers. Loans for agricultural inputs and crop insurance can be right-sized for individual needs. Interest rates and loan terms for credit products can be less favourable for customers with predominantly seasonal incomes.
PAYGO systems	Decreasing cost of and ubiquity of IoT systems enable smallholders without collateral or credit history to access productive use equipment. Technical and connectivity challenges can impact adoption.

*83% of cultivated land
providing 60% of
world's food is rainfed.*



THE PROBLEM



Product Expertise
Resource Base
Supply Chain
Market Reach and Support

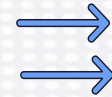


4R DIGITAL

PAYGO Platform

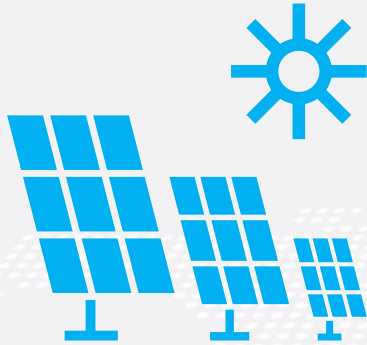


FINANCE



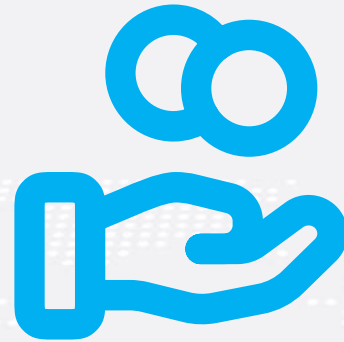
THE DAYLIPA SOLUTION

— THE OPPORTUNITIES



Why Solar

Replacing petrol pumps and hand pumps – Sustainability at its best



Why PAYGO

Enhancing access through flexible payments on Solar Pumps & More



DAYLIPA SOLUTION

Range of pumps offered on Daylipa PAYGO, Our Digital Solution & Flexible Payments.



3 STEP APPROACH



High performance solar water pumping

Satisfy water demand, provide variety.



Innovative PAYG Financing

Flexibility that mimics farmer's revenue cycles, backed with technology.



Helpful bundled add-ons

Input based add-ons bundled to main offering e.g. drips, structures etc.

Understanding the PAYGO Model

The value proposition for smallholder farmers

PAYGO and innovating financing mechanisms offer a compelling value proposition to smallholder farmers in ASAL regions. They have the potential to realize immediate cost savings and long-term investment benefits. Various customer segments are anticipated to respond to and resonate more deeply with one mechanism or the other:

- **Cost Saving Mechanism:** A PAYGO SWP presents a cheaper and more sustainable alternative to incumbent solutions. Once installed, it eliminates the recurring expense of fuel and frequent service costs. Additionally, the opportunity cost of time saved can translate directly or indirectly into improved financial outcomes. This immediate cost-saving benefit is a powerful and relatable argument for individuals who often seek clear, straightforward benefits from their investments.
- **Investment Mechanism:** Beyond the immediate cost savings, a productive use asset represents a strategic investment decision. Access to reliable and efficient irrigation can significantly increase agricultural productivity by enabling year-round farming and the cultivation of higher-value crops. However, articulating this investment mechanism can be challenging, especially in problem-based customer pitch settings. While highly relevant and motivating, the potential for increased returns requires a longer-term perspective and immediate calculations to estimate future financial implications.

Variations of the PAYGO model to enhance utility for smallholders

Time-based	Benefits: Low initial cost, flexible payments, easy to budget. Considerations: Costs align with usage, promotes efficiency, transparent billing. Suitability: Predictable monthly billing, encourages efficient use, balances cost and accessibility.
Consumption-based	Benefits: Higher long-term cost, dependency on provider's system. Considerations: Variable monthly costs and higher initial setup for metering. Suitability: Requires sophisticated billing systems, potentially higher monthly costs during peak use.
Hybrid	Benefits: Farmers with variable water needs and tight budgets. Considerations: Consistent usage and areas with reliable solar output. Suitability: Smallholders needing budget stability with incentives for efficient usage.

Scaling the PAYGO Model

Elements of the PAYGO model

Initial deposit	A strong indicator of customer creditworthiness, the initial deposit can be the sole pricing factor for smallholders.
Fixed price element	Ensures a floor element is set to maintain a sustainable level of cash flow. The fixed price element enables service access and covers loan service and ongoing business costs.
Variable element	Customers can purchase units of energy based on individual and seasonal requirements, which enables flexibility in managing repayments in line with cashflow and agricultural cycles. Payments against the variable element contribute to overall loan balances, offering flexible and needs-based repayment terms.
Tenure	Loan tenure is a crucial element of the pricing plan to balance customer affordability and commercial viability.

Understanding and serving smallholder segments at scale

A sustainable offering can be achieved at scale based on articulating customer demands and needs, commercial viability targets, and technical feasibility conditions.

- 1) Customer personas and segmentation:** Given the fragmentation of smallholder needs across the ASAL region, customer personas and segmentation can help refine business processes and execution, from sales to credit management.
- 2) Balance sheet management:** Repayment speed will vary across the portfolio and can be represented in percentage terms, 100% indicating that repayments are tracking against the loan tenure expectations in each reporting window. A framework to define non-performing loan criteria accurately can inform the response and approach across various business processes. A separate measure of repayment speed and repayment rates will factor seasonality to identify asset underutilisation and design appropriate responses.
- 3) Economies of scale and scope:** Increasing the scope of scale of service delivery can enhance the scaling potential for initiatives serving smallholders with diverse and unique needs.
- 4) Operational efficiency:** In highly fragmented environments, operational efficiency represents a commercial advantage to achieve scale, as can adopting and deploying relevant technologies to enhance business processes.

Contact Us

June Samo

Water Intervention Manager and
Market Systems Development
Specialist

The Millennium Water Alliance

June.samo@mwawater.org

Josphat Siele

County Lead / Senior Project Officer
Catholic Relief Services

josphat.siele@crs.org

Tilak Nathwani

Project Manager
4R Digital

tilak.nathwani@4rdigital.com

Brian Nyagol

Group Manager, Sustainability Division
Davis & Shirliff

Brian.Nyagol@dayliff.com

For more information about MWA and/or to collaborate on a learning event, please contact Keith Wright, Chief Executive Officer (keith.wright@mwawater.org) or Audrey Caprio, Global Knowledge Management & Learning Officer (Audrey.caprio@mwawater.org)