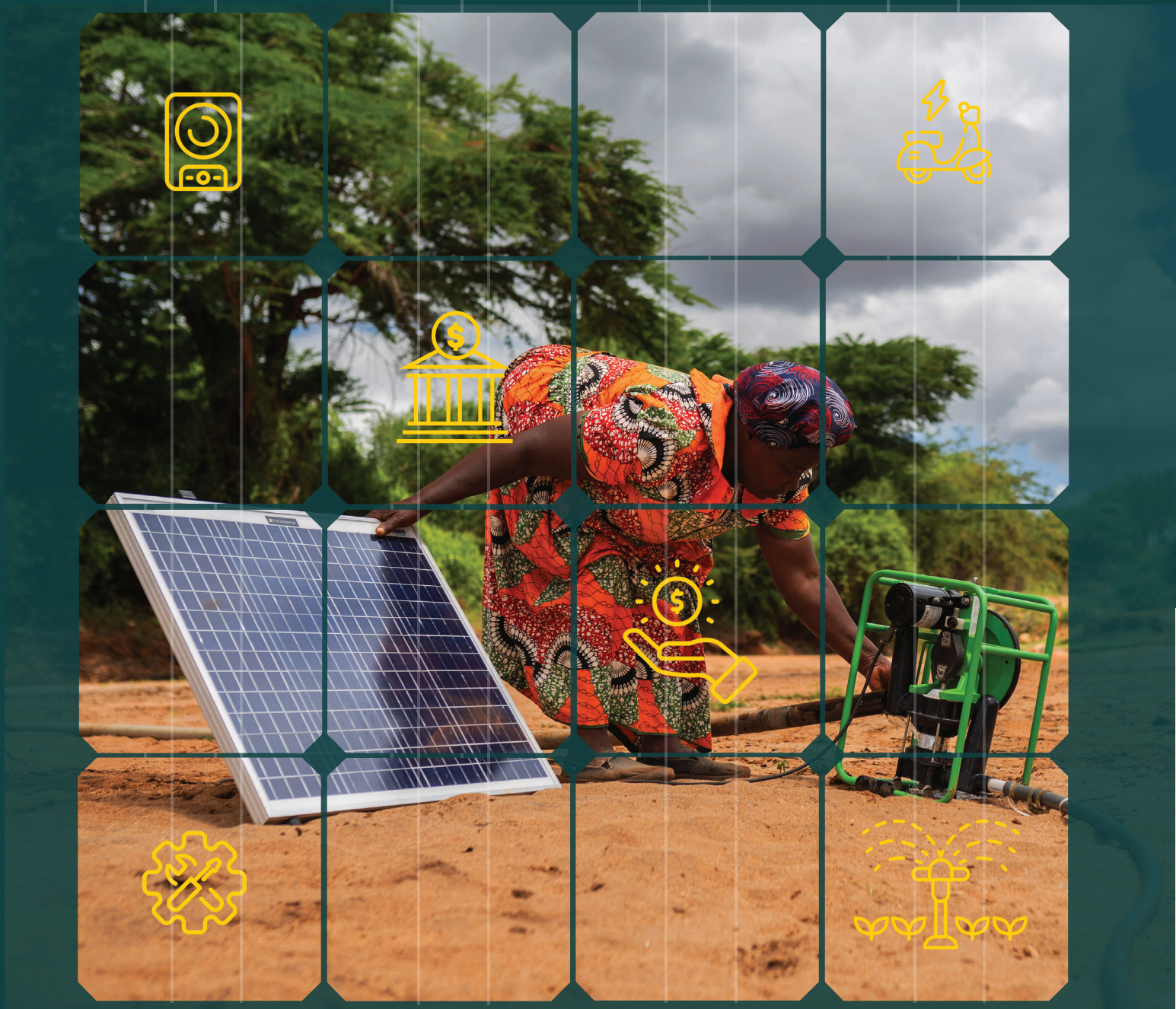
PowerUp

Assessment of Local Financial Institutions' Role in Financing Clean Cooking and Productive Use of Energy Solutions in Kenya

by Upscale Consulting



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About PowerUp Kenya

Power Up Kenya is a multi-stakeholder advocacy campaign working to accelerate the uptake and scale of clean cooking solutions and Productive Uses of Renewable Energy (PURE) as key drivers of inclusive, climate-resilient development. Clean energy is a key enabler of broader climate and development outcomes, including gender equity, environmental sustainability, economic growth, improved health, and climate resilience. Reflecting this cross-sectoral importance, the campaign convenes a diverse coalition of stakeholders beyond the energy sector, including private sector actors, civil society organisations, and development partners, to influence policy, unlock financing, and strengthen the enabling environment for sustainable energy access in Kenya.

The campaign is grounded in the understanding that access to energy alone is not sufficient to drive development. Energy must be affordable, reliable, and productively used to support livelihoods, enterprise growth, and resilience, particularly among underserved communities. Clean cooking and PURE solutions offer significant opportunities to reduce reliance on polluting fuels, improve health outcomes, enhance agricultural productivity, and support income-generating activities across sectors.

Power Up Kenya operates within the country's devolved governance structure, engaging both national and county governments to strengthen policy frameworks and implementation. At the national level, the campaign advocates for the integration of clean cooking and PURE into key policy frameworks, including the National Energy Policy and the Integrated National Energy Plan, alongside increased allocation of financial resources for the development and implementation of policy measures, as well as the scaling of these solutions. At the county level, Power Up works with the Council of Governors and individual counties to promote the inclusion of these solutions in County Energy Plans and investment prospectuses.

A central focus of the coalition's advocacy work is financing. Despite strong demand and clear development benefits, clean cooking and PURE sectors remain significantly underfunded due to high upfront costs, perceived risks, and limited access to appropriate financial products. Power Up Kenya engages local financial institutions, including commercial banks, microfinance institutions, SACCOs, and development finance institutions, to advocate for increased and better-aligned financing. This includes promoting innovative financing models, facilitating dialogue between financiers, energy stakeholders and private enterprises, and sharing market intelligence to demonstrate the viability and impact potential of these sectors.

Importantly, Power Up Kenya serves as a platform that amplifies the voices of enterprises, particularly SMEs, and enables their engagement with policymakers and financiers. Through convenings, research, and strategic partnerships, the campaign seeks to translate climate commitments into practical, inclusive action that expands access to clean, affordable energy and supports low-carbon livelihoods across Kenya.

Table of Contents

List of Annexes

List of Figures

List of Tables

Foreword

Kenya stands at a pivotal moment in its energy transition journey. As the country continues to make commendable progress in expanding access to renewable energy, it is increasingly clear that access alone is not enough. The real opportunity lies in ensuring that energy is not only available, but also productively used to drive economic growth, improve livelihoods, and accelerate climate action.

Productive Uses of Renewable Energy (PURE) and clean cooking solutions represent two of the most impactful yet underfinanced segments within Kenya's energy landscape. They hold immense potential to transform rural economies, empower small and medium enterprises, and contribute meaningfully to national development priorities. However, unlocking this potential requires a fundamental shift in how these sectors are financed.

This report comes at a critical time. It provides a comprehensive analysis of the financing landscape for PURE and clean cooking in Kenya, with a particular focus on the role of Local Financial Institutions. It highlights both the progress made in mobilising green and climate finance, and the persistent gaps that continue to limit scale. While we are encouraged by the growing participation of commercial banks, microfinance institutions, and SACCOs, it is evident that current financing approaches remain insufficient to meet the needs of these emerging markets.

One of the key insights from this study is the disconnect between available capital and its accessibility to enterprises and end-users. PURE and clean cooking continue to be bundled within broader green finance categories, obscuring their unique characteristics and financing needs. As a result, these sectors remain underserved despite their demonstrated market demand and strong potential for scalable investment.

As a coalition, our role is not to finance these solutions directly, but to champion and advocate for an enabling environment for them to thrive. We do this by amplifying the voices of enterprises, facilitating dialogue between businesses, financiers, planners and policymakers, and advocating for financing models and policies that are responsive to market realities. This report reinforces the importance of these platforms and the need for more deliberate, coordinated action.

The findings presented here point to clear priorities: the need for targeted de-risking instruments, tailored financial products, improved data transparency, and stronger collaboration between public and private actors. Most importantly, they underscore the critical role that Local Financial Institutions can play in bridging the gap between climate finance and last-mile impact.

I encourage all stakeholders - financial institutions, policymakers, development partners, and enterprises - to engage with the insights and recommendations in this report. By working together, we can unlock the full potential of clean cooking and PURE, driving inclusive growth while advancing Kenya's climate and energy goals.

On behalf of the Power Up coalition, I extend my appreciation to all partners and stakeholders who contributed to this study. We look forward to continued collaboration in translating these insights into action.

David Njugi
Chairman, Power Up Kenya

Abbreviations

AFD	French Development Agency
AfDB	Africa Development Bank
BII	British International Investment
C&I	Commercial and Industrial
CASEE	Catalysing Agriculture by Scaling Energy Ecosystem
CEI	Clean Energy and Energy Inclusion for Africa
CSR	Corporate Social Responsibility
DFIs	Development Finance Institutions
DFIs	Development Finance Institutions
ESG	Environmental and Social Governance
ESMAP	Energy Sector Management Assistance Programme
FCDO	Foreign, Commonwealth & Development Office
FINE	Financing Innovation & Entrepreneurship
FMO	Dutch Entrepreneurial Development Bank
GCF	Green Climate Finance
GOGLA	Global Off-grid Lighting Association
ICS	Improved Cookstoves
IDFC	International Development Finance Club
IDPs	International Development Partners
IEA	International Energy Agency
KfW	Kreditanstalt für Wiederaufbau
KNCTS	Kenya National Cooking Transition Strategy
KNeCS	Kenya National electric Cooking Strategy
KOSAP	Kenya Off-grid Solar Assistance Programme
KWFT	Kenya Women Finance Trust
LFIs	Local Financial Institutions
LMCP	Last Mile Connection Program
LPG	Liquified Petroleum Gas
MFI	Micro Finance Institution
MSME	Micro Small and Medium Enterprises
NEFCO	Nordic Environment Finance Corporation
PURE	Productive use of Renewable Energy
RBF	Result Based Financing
SACCOs	Saving and Credit Cooperative Organisations
SEFA	Sustainable Energy for All
SHS	Solar Home Systems
SLL	Sustainability Linked Loan
SMEs	Small and Medium Enterprises
SPV	Special Purpose Vehicle
TA	Technical Assistance
UNCDF	United Nation Capital Development Fund
UNDP	United Nation Development Programme

Solar technicians installing panels at a mini-grid site

Image Courtesy: EmekeObanor/Ashden/Sosai

Executive Summary

Kenya's clean cooking and Productive Use of Renewable Energy (PURE) sectors are undergoing rapid transformation driven by expanding green and climate finance, maturing business models, and increasing participation of Local Financial Institutions (LFIs). Yet both sectors remain significantly underfunded relative to their economic and climate potential. This executive summary synthesizes key findings from the report, highlighting market dynamics, financing flows, institutional roles, and strategic opportunities to scale access.

Clean cooking adoption remains low at 31.6% nationally, with sharp disparities between urban and rural areas[1]. LPG, electric cooking, and improved biomass stoves face constraints including affordability, weak distribution networks, and behavioural preferences. PURE markets spanning irrigation, cold storage, refrigeration, milling, agro-processing, and e-mobility present strong household and SME income-enhancement potential but are limited by high upfront costs and insufficient financing.

Clean cooking adoption remains low at 31.6% nationally.

Nearly USD 1 billion was mobilised in 2025, signalling growing investor confidence in decentralised energy.

Green energy finance is central to addressing these barriers. Kenya's clean-energy commitments require substantial investment, and DFIs provide credit lines, concessional loans, guarantees, and technical assistance that enable LFIs to lend to high-impact but historically underfinanced sectors. Between 2021 and 2025, the financing landscape shifted significantly, with major increases in both direct investments and LFI-mediated flows. Notably, 2025 saw nearly USD 1 billion mobilised, driven by largescale securitization deals from d.light and SunKing, demonstrations of investor confidence in decentralised-energy models[2].

1 *Ministry of Energy and Petroleum. (2024). Kenya national cooking transition strategy, 2024 – 2028 (Version 3) [PDF]. https://www.energy.go.ke/sites/default/files/KAWI/Publication/Kenya%20National%20Cooking%20Transition%20Strategy_Signed.pdf*

2 *Analysis from the field data*

Commercial banks are now leading domestic green-finance mobilisation. Institutions such as Kenya Commercial Bank (KCB), Equity, Co-operative Bank, ABSA, and Stanbic finance solar irrigation, cold storage, energy-efficient appliances, PAYGo receivable portfolios, and institutional clean cooking. Green credit lines, sustainability-linked loans, partial guarantees and concessional DFI supported facilities have enhanced banks' ability to extend tenors and lower the cost of capital. These instruments reduce risk and increase the attractiveness of lending to energy SMEs and institutional borrowers.

Microfinance institutions such as KWFT, Juhudi Kilimo, Musoni, Faulu, ECLOF, and VisionFund play a critical role by financing end-users, including households, farmers, and microenterprises. Their group lending, flexible repayment cycles, and rural presence make them ideal channels for clean cookstoves, solar water pumps, small solar refrigerators, and electric appliances. SACCOs complement these capabilities, leveraging payroll deduction, member savings, and trust-based lending to accelerate last-mile adoption of clean cooking and small PURE technologies.

Despite progress, systemic barriers continue to hinder LFI participation. These include limited technical understanding of technologies, high perceived SME risk, lack of collateral, tenor mismatches, insufficient asset-performance data, seasonal incomes, and policy inconsistencies related to taxation and market regulation. For clean cooking, behavioural risks and product satisfaction concerns reduce lender confidence. For PURE, high upfront cost of equipment and maintenance constraints introduce additional risk.

A core structural challenge is the aggregation of clean cooking and PURE into broad green-finance categories. This masks their distinct financing needs, leading to misaligned credit instruments, mispriced risks, and underestimating capital requirements. Evidence confirms that lack of subsector visibility results in chronic underfunding.

The case studies in the report including Ecobank's Distributed Solar Facility, Sun King's securitization programme, Nedbank South Africa's green finance model, Stanbic Uganda's renewable-energy credit line, and Access Bank Nigeria's Green Economy Line demonstrate that blended finance, technical assistance, and local-currency structures can unlock significant capital for distributed energy and productive technologies.

Kenya's progress between 2021 and 2025 indicates a maturing ecosystem where DFIs, commercial banks, MFIs, and SACCOs jointly mobilise sustainable capital. However, **scaling clean cooking and PURE to national levels requires:**

1. Expanded de-risking tools
2. Dedicated subsector credit lines
3. Improved data transparency
4. Strengthened SME capacity
5. Deeper domestic capital mobilisation

Kenya stands at a strategic inflection point where clean cooking and PURE are no longer niche sectors but emerging commercial markets. LFIs are positioned to drive this transition by leveraging blended finance, enhancing climate-risk integration, and innovating financial products suited to distributed-energy markets. By aligning financing structures with national energy-transition strategies and leveraging DFI support, Kenya can unlock inclusive, productive, and climate-aligned growth.

An end-user with a clean cooking stove for household use

Image Courtesy: Ashden/Burn

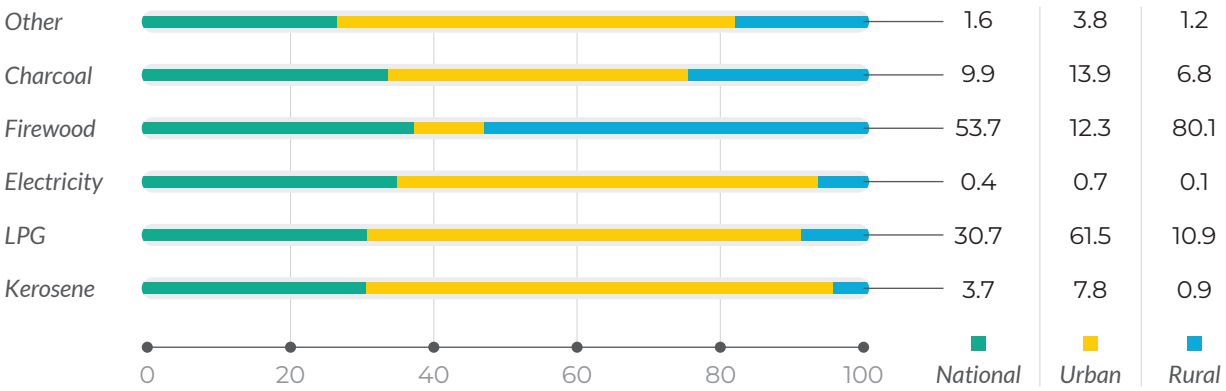
1 Introduction

1.1 Clean Cooking Access

Approximately 31.6% of Kenyan households primarily cook their meals with a clean cooking solution. Most (62.6%) of these households live in urban areas, while only 11.4% of rural households have access to clean cooking solutions. The primary clean cooking solution is LPG, while firewood is the main pollutant, used by 80% of rural households as shown in ***Figure 1***.

Figure 1 *Population primarily reliant on specific cooking fuels and technologies*[3]

(Values in %)



Kenya developed the National Cooking Transitions Strategy 2024-2028 (KNCTS) to address systemic barriers, primarily i) supply gaps, ii) affordability and iii) availability of low-cost firewood and charcoal[4]. To address these barriers, the KNCTS recommends a **five-point agenda**:

1. Bridging the supply gap for clean cooking solutions,
2. Bridging the affordability gap for end users,
3. Promoting local manufacturing and fuel production for local use and export,
4. Reframing and raising awareness for clean cooking; and
5. Instituting accountability, planning, and continuous tracking of progress.

In addition, it had developed bioenergy strategy (2021)[5], Kenya ethanol for cooking Masterplan (2021)[6], National Electric Cooking Strategy (2024), which seeks to strengthen the enabling environment for clean cooking transition.

1.2 Clean Cooking Ecosystem in Kenya

Kenya's cooking sector cut across different technologies and fuels that are driven by development partners and private sectors. **The private sectors are at different stages of growth as discussed below.**

A household end-user preparing a meal using a clean cookstove

Image Courtesy: Ashden/Mwangaza Light

3 *Ministry of Energy and Petroleum. (2024). Kenya National Cooking Transition Strategy, 2024–2028 (Signed final version) [Government report]. Government of Kenya. https://www.energy.go.ke/sites/default/files/KAWI/Publication/Kenya%20National%20Cooking%20Transition%20Strategy_Signed.pdf*

4 *ibid*

5 *Ministry of Energy. (2020). Bioenergy strategy (Kenya) [Strategy report]. Kenya Climate & Nature Directory. https://kenyaclimatedirectory.org/resources/673cbe5cce73c*

6 *Ministry of Energy & SouthSouthNorth. (2021). Kenya ethanol cooking fuel (ECF) masterplan (June 2021) [Masterplan report]. Government of Kenya; SouthSouthNorth. https://southsouthnorth.org/wp-content/uploads/2021/07/ECF-Kenya-Masterplan-cover.pdf*

Improved Biomass Cookstoves (ICS)

Biomass remains the backbone of household cooking, with traditional and improved cookstoves prevalent across rural and urban Kenya. Long-standing models like the Jiko Kisasa and Kenya Ceramic Jiko (a locally made firewood and charcoal stove with ceramic liners) are produced by numerous artisanal manufacturers and widely distributed through informal markets; these enterprises are typically micro and early-stage, rooted in local production without formal scaling structures.

Biogas Systems

Biogas uptake is emerging, particularly for small holder farmers with zero grazing. Historically dominated by local artisans constructing fixed-dome digesters, this subsector now includes growth-stage technology suppliers and installers who offer more standardised systems commonly referred to as prefabricated biogas systems[7].

Bioethanol Cooking

Bioethanol cooking represents one of the more commercially dynamic segments. KOKO Networks[8] is a leading enterprise that supplies bioethanol fuel and compatible cookstoves at scale, leveraging technology platforms for distribution and payment, and serving substantial household volumes with operations expanding nationally and regionally specifically Rwanda. Other startups experimenting with ethanol cookstove business models are at pilot to early-growth stage[9].

Electric Cooking (eCooking)

Electric cooking technologies includes induction, infrared and electric pressure cookers are increasingly distributed by established household appliance distributors through their network and retail partners. The leading distributors include Tefal, Hotpoint, Mika, Ramton, Armco among others. Other emerging last-mile distributors include: Nyalore impacts, SCODE, Bidhaa sasa etc. The adoption is still at an early stage benefitting from Kenya's rapid electrification and linked clean cooking policies[10].

Liquefied Petroleum Gas (LPG)

LPG is the most mature commercial fuel in Kenya's modern cooking mix, backed by extensive distribution networks and commercial players. Market leaders include multinational and local firms providing cylinders, refills, and accessories at scale, supported by government and private sector initiatives aiming to raise LPG penetration as part of the clean cooking transition.

Processed biomass fuels (Pellets and briquettes)

Kenya presents significant upside due to abundant feedstock: agricultural residues, sawdust, and charcoal dust are widely available, with inefficient charcoal systems wasting 85–91% of biomass energy, creating a strong resource base for pellet and briquette conversion. The sector is generating new SME enterprises, green jobs, and investment opportunities in production, machinery, and distribution networks. With over 6.7 million households still using traditional biomass, the addressable market remains massive, positioning briquettes and pellets as a critical transitional fuel in Kenya's clean cooking pathway and industrial decarbonisation.

7 *ibid*

8 *KOKO Networks. Retrieved January 30, 2026, from https://kokonetworks.com/koko-fuel/*

9 *Clean Cooking Alliance. (2025). Clean cooking industry snapshot: Top trends [Industry report]. Clean Cooking Alliance. Retrieved from https://cleancooking.org/wp-content/uploads/2025/08/Industry-Snapshot-Top-Trends.pdf*

10 *Onsongo, E., Nayema, K., Kinuthia, B., & Kausya, M. (2023). Kenyan national baseline eCooking study (KNeCS) report. Modern Energy Cooking Services (MECS). Retrieved January 30, 2026, from https://mecs.org.uk/publications/kenyan-national-baseline-ecooking-study-knecs-report*

1.3 PURE Ecosystem in Kenya

Productive use of renewable energy (PURE) is the utilisation of renewable energy technologies to power agricultural, commercial or industrial processes and services that create value, generate income, and advance economic development[11].

PURE products and appliances facilitate new or enhanced income-generating activities. These include solar-powered water pumps, refrigeration units, cold storage facilities, heating equipment, and agricultural processing tools. PURE appliances, designed to enhance income-generating activities in off-grid or mini-grid contexts (e.g., grain mills, welders, irrigation pumps, or small processing equipment), typically require power ranging from 1,000 watts to 10,000 watts (1–10 kW). This range significantly exceeds household appliances (30–100 watts for lighting or televisions) and commercial devices (50–100 watts for refrigeration), enabling higher energy throughput and economic viability in rural electrification projects.

Opportunities exist to enhance electricity consumption by increasing productivity in agriculture, commercial, and industrial activities, as well as meeting the growing demand for productive uses in the market[12]. PURE creates new income sources, which can be used to pay for the electricity services they receive. For instance, solar home system (SHS) ownership has translated into an average additional income generated per household per month of US$46 in East Africa, US$31 in West Africa and US$65 in South Asia[13].

The PURE ecosystem has been dominated by off-grid solar appliances for water pumping and refrigeration, but other sub-sectors like E-mobility are gaining traction – led by two wheelers and vehicles. There are more than 100 active companies in Kenya's productive-use-of-energy landscape, spanning solar water pumping, cooling, and E-mobility[14]. These companies could be categorised into three broad groups based on the products and services they sell: i) plug and play PURE kits, ii) component-based solar and iii) mini-grids[15].

There are more than 100 active companies in Kenya's productive-use-of-energy landscape.

PURE technologies in the Kenyan market and their applications are shown in ***Table 1*** below.

11 *GOGLA. (2023). Powering Lives and Livelihoods: Scaling Productive Uses of Renewable Energy (PURE): Handbook for Governments & Development Partners. https://gogla.org/wp-content/uploads/2024/11/Gogla_PURE-Handbook_for_Governments_Development_Partners.pdf*

12 *Ministry of Energy and Petroleum. (2025). National energy policy 2025-2034. https://energy.go.ke/sites/default/files/Final%20Draft%20%20National%20Energy%20Policy%2018022025.pdf*

13 *GOGLA. (2019). Powering opportunity: Energising Work, Enterprise and Quality of Life with Off-Grid Solar. https://ebdm6dgmdiq.exactdn.com/wp-content/uploads/2024/11/powering_opportunity_global_report.pdf*

14 *Olerai Advisory Ltd. (2021). Productive Uses of Solar Energy in Kenya: Policy Action Plan. https://www.afsiasolar.com/wp-content/uploads/2024/03/kenya-20pue-20market-20status-20_policy-20action-20brief-20and-20plan_2021_web.pdf*

15 *Ibid*

Table 1 *PURE Technologies in the Kenyan Market*[16]

Agricultural production	Water pump irrigation system Solar sprayer
Agricultural post-harvest processing and storage	Dryers Mill, huller Thresher Crusher Paste-maker Cold oil press Cold room Refrigerator
Dairy, poultry and live stock	Cold room, refrigerator Freezer Ice-making machine Milk tank Cold transport Egg incubator Water pump
Fisheries	Fishing light Water pump Ice-making machine cold transport Electric boat motors
Service/Light industry	Sewing machine, loom Drill Hammer Soldering iron Welding equipment Compressor Barber kits Entertainment Computer, printing services
Transport sector	2 wheelers Vehicles – small cars and buses

Solar technicians installing a solar panel on the roof of a hospital

Image Courtesy: Kairbu_Service/Off Grid Box

16 *SNV Netherlands Organisation. (2021). The market for productive uses of solar energy in Kenya: A status report. https://sun-connect.org/wp-content/uploads/The-Market-for-Productive-Uses-of-Solar-Energy-in-Kenya-Status-Report-2021_web-002-1.pdf*

1.4 Traditional Financing for PURE and Clean Cooking

Small and medium enterprises (SMEs) operating in the Productive Use of Renewable Energy (PURE) and clean cooking ecosystem have long relied on traditional financing structures—mainly microfinance, supplier credit, informal borrowing and owner equity and to a small extent commercial banks through their asset and SME departments[17]. While these mechanisms have supported early-stage participation in the sector, they have increasingly proven inadequate for scaling, especially in Sub-Saharan Africa, where demand for decentralised energy services and clean cooking solutions has expanded significantly. Structural limitations, risk perceptions and shallow capital markets have constrained the growth of this sector[18], prompting a shift toward more innovative financing models facilitated by DFIs, climate-finance actors, blended-finance vehicles, and results-based approaches.

Innovations are emerging across blended finance, securitization, guarantees, RBF, and climate-related capital flows.

The section below characterises and limitations of the traditional financing:

Commercial Bank Loans

Commercial banks have historically been the primary source of external financing for SMEs. However, it is **collateral-driven and typically requires fixed assets, multi-year operating history and strong cash flows**. For PURE and clean cooking SMEs, many of which operate asset-light distribution models, have working-capital needs, or rely on PAYGo receivables have been finding it difficult to meet the conditions set. Loan tenors are often short (6–36 months), interest rates relatively high in local currency and risk assessments conservative due to limited familiarity with the sector[19].

Microfinance Institutions (MFIs)

MFIs provide essential end-user financing, particularly for clean cooking and solar home systems (SHS). However, their products are predominantly small-ticket loans priced higher than bank credit. MFIs rarely offer SME-level financing above USD 50,000–150,000, making them inadequate for financing supply-chain expansion, bulk procurement of inventory, or establishment of PAYGo-enabled PURE asset portfolios[20].

Supplier Credit and Informal Finance

Many SMEs rely on trade credit from importers, distributors, or manufacturers—typically short-term and dependent on personal relationships. Informal family loans or equity injections from founders are also common. While these channels provide immediate liquidity, they do not support long-term capital investments such as manufacturing upgrades, expansion or productive-use equipment leasing programs[21].

17 *World Resources Institute Africa. (2024). Unlocking local private capital to finance the productive use of renewable energy (PURE) sector. https://africa.wri.org/sites/default/files/2024-09/unlocking-local-private-capital-finance-productive-use-renewable-energy-pure-sector.pdf*

18 *GET.invest. (2023). Financing and scaling productive use of energy. https://www.get-invest.eu/wp-content/uploads/2023/05/GET.invest_Financing-and-Scaling-PUE_202305-1.pdf*

19 *International Finance Corporation. (2023). Green Banking in Africa Report*

20 *Consultative Group to Assist the Poor (CGAP). (2022). Microfinance and Energy Access*

21 *Clean Cooking Alliance. (2022). Clean Cooking Industry Snapshot 2022*

1.5 Limitations of Traditional Financing

High perceived risk and limited sector knowledge

Local financial institutions (LFIs) often view PURE and clean cooking ventures as high risk because of the unfamiliar technologies, limited credit history, fragmented distribution channels and lack of proven collateral. This leads to underwriting inefficiencies and outright rejection of **bankable SMEs** - creating a financing gap estimated to exceed USD 4 billion for clean cooking and USD 100 billion for PURE in Africa[22].

Collateral requirements misaligned with SME business models

Many SMEs in the DRE sector rely on mobile assets (e.g., LPG cylinders, biomass stoves, PAYGo meters, e-cook appliances) that are not accepted as collateral. Banks typically prefer land, buildings, or vehicles. The misalignment between collateral demands and the asset structures of energy SMEs results in under-lending.

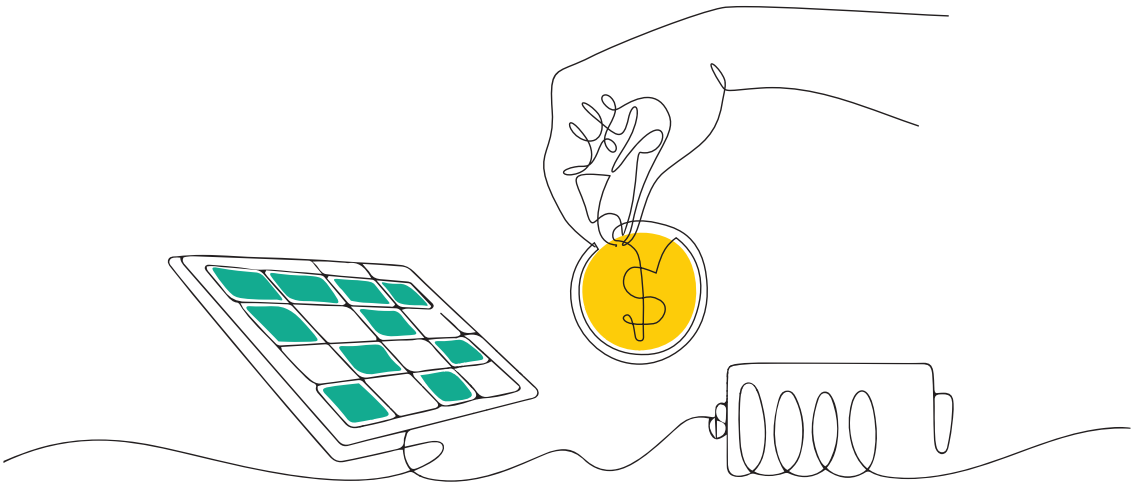
Short tenors and high pricing

Local-currency loans in Africa often carry interest rates of 15–22 percent with short maturities. PURE assets (e.g., solar irrigation pumps, cold storage, mills) and clean cooking infrastructure (e.g., cylinder fleets, distribution hubs, manufacturing lines) require longer payback periods—typically 3–7 years. The mismatch between the required and available tenor constrains scale.

Limited working-capital support

SMEs in the sector face liquidity gaps due to seasonality of demand, import lead times, and upfront equipment procurement. Traditional lending model rarely provides flexible working-capital lines tailored to these challenges.

To address these challenges, the financing landscape for PURE and clean cooking is rapidly evolving. Innovations are emerging across blended finance, securitization, guarantees, RBF, and climate-related capital flows. These instruments will be discussed in detail in later sections.



22 *International Energy Agency. (2022). Africa Energy Outlook 2022*

1.6 Study Methodology

This study adopted a qualitative and quantitative, multi-source research design combining key informant interviews (KIIs) with an in-depth literature review. KIIs were conducted with industry experts across the clean energy and climate finance ecosystem, including local financial institutions (LFIs), non-governmental organizations, impact investors, enterprises, and industry associations. These interviews provided contextual insights into financing mechanisms, market dynamics, and constraints affecting funding flows.

The primary data collected through KIIs was systematically enriched and validated through a deep-dive review of publicly available literature, including investor reports, policy documents, programme evaluations and sector studies. Given the limited availability of granular and proprietary financial data from many market actors, quantitative information on funding flows was largely derived from secondary sources.

To address these limitations, the study applied a triangulation approach. Insights from KIIs were used to guide, interrogate, and corroborate findings from documentary sources, while literature evidence was used to validate expert perspectives. This iterative cross-checking process strengthened data reliability, reduced bias, and enabled the construction of a coherent and credible representation of financing flows despite gaps in direct disclosures.

A cook preparing a meal using an institutional clean cookstove manufactured by Ecobora
Image Courtesy: EcoBora

Technician carrying out solar panel maintenance

Image Courtesy: Ashden-African Management Institute

2 Funds flow to Local Finance Institutions

2.1 Contextualizing PURE and Clean Cooking Financing

The funding that is used to finance clean cooking and PURE through LFIs principally falls under the umbrella of "**green finance**" or "**climate finance**". It encompasses initiatives that reduce greenhouse gas emissions, enhance energy efficiency, improve resilience to climate change, promote renewable energy and adapting to climate change[23]

[23] *United Nations Environment Programme. (2023). Adaptation gap report 2023: Underfinanced, underprepared: Inadequate investment and planning on climate adaptation leaves world exposed. https://www.unep.org/resources/adaptation-gap-report-2023*

Typical instruments include green bonds, green loans, sustainability-linked loans, and climate funds. These instruments help direct capital flows towards projects that generate measurable environmental benefits. This approach has been adopted because of lack of disaggregation of products which mask the specific finance flow to the sector under study. **This has been a major concern as expressed by various studies as listed below** (See annex 2 for more information).

1. The IEA under the vision for clean cooking access for all, 2023 stated that clean cooking investments is invisible within aggregated energy-access and climate categories causing underestimation of capital needs.
2. The world Bank and ESMAP under the state of access to modern energy cooking services, 2020 expresses that bundled financing in the energy sector masks subsector specific cashflow patterns and risks.
3. ESMAP under the productive uses of electricity 2022 highlights that PUE is often blended into off-grid solar categories, masking asset-specific financing needs such as leasing, O&M and productive use demand risk.
4. SEforAll under Energising finance: understanding the landscape notes that aggregated energy access investments disproportionately favour electrification while underfunding clean cooking and productive use sectors.

Understanding green finance is therefore critical in the energy transition ecosystem, specifically financing of clean cooking and PURE sectors in Kenya. It helps governments, financial institutions, and enterprises align their financing frameworks with **climate finance taxonomies** and sustainability principles outlined by international bodies such as the Green Climate Fund (GCF) and the International Development Finance Club (IDFC). These frameworks emphasize **impact measurement, transparency** and **environmental integrity**, which are vital in attracting concessional and blended capital.

In practice, most funds supporting clean cooking and PURE are sourced from Development Finance Institutions (DFIs), Foundations and bilateral development agencies such as AFD, KfW, IFC, AfDB, Shell foundation, DANIDA, Norad and FCDO among others. These Development partners provide credit lines, results-based financing (RBF), and guarantees to de-risk local financial institutions (LFIs), enabling them to lend to clean cooking and PURE previously considered unviable or high-risk[24]. Such interventions bridge financing gaps, stimulate private sector participation, and build institutional capacity for sustainable lending. Without green finance mechanisms, commercial banks would often shy away from investing in clean energy access due to perceived credit and market risks.

Mercy Waigwa with her Ecoa Electric Induction Stove in Ruiru, Kiambu County, Kenya.
Image Courtesy: Maurice Mwangi

[24] *World Bank. (2022). Financing clean cooking: Results-based financing, credit lines, and guarantee mechanisms for expanding access. World Bank Group*

2.2 Why Green Energy Finance

Green energy finance is comprised of a range of financial instruments, mechanisms and institutional arrangements designed to mobilise capital toward environmentally sustainable activities. This includes sustainability linked loans, green loans, green bonds, climate finance, blended finance, guarantees and risk sharing facilities, green credit lines, Result Based Finance (RBF), carbon finance, green equity investments, green grants and Technical Assistance among others. **It plays a catalytic role in advancing financing of clean cooking and PURE in the following areas**:

Supports low-carbon transition It mobilizes resources for renewable energy, clean cooking, solar water pumping, solar powered irrigation, and e-mobility, reducing reliance on fossil fuels.

Mitigates climate risks Green investments help build climate resilience by financing adaptation and risk management measures.

Catalyses private sector investment By blending public and private funds, green finance de-risks climate-related investments and attracts more private capital. It lowers the cost of capital in a high-rate, debt-constrained environment, unlocking private finance for projects that would otherwise be marginal. This is pivotal in a sector only receiving marginal investment[25].

Drives economic growth and innovation It creates new green jobs, stimulates technological innovation and open access to global climate finance opportunities.

Enhance environmental and social outcomes Through green lending, banks and investors can encourage sustainable practices among enterprises and consumers.

Martha Guguel checks on the quality of briquettes as they dry inside a solar dryer

Image Courtesy: Andrew Kartende

25 *Chingono, N. (2024, March 4). Africa to be $2.5 trillion short of climate finance by 2030, UN says. Reuters. https://www.reuters.com/sustainability/sustainable-finance-reporting/africa-be-25-trillion-short-climate-finance-by-2030-un-says-2024-03-04/*

2.3 Financing Needs and Gaps

The Ministry of Energy and Petroleum in Kenya estimates that US$1,142 million is required to achieve the goal of universal clean cooking by 2030[26]. The expectation is that the private sector will contribute 60% of the total funding, which amounts to US$686 million, while the government is expected to raise the remaining 40%, or US$456 million.

US$1,142 million is required to achieve the goal of universal clean cooking by 2030.

In Kenya, approximately US$1,940 million is required to achieve distributed renewable energy (DRE), PURE and energy efficiency goals. The private sector is expected to contribute 50.2% (US$974 million), while the government is set to contribute at least 49.8% (US$966 million). Kenya has articulated its energy access and transition ambitions through a national Energy Compact, which serves as a high-level policy and financing framework aligning government, private sector, and development partner efforts. The Compact outlines priority interventions, estimates total investment requirements and defines expected public and private sector contributions toward achieving universal access and productivity-enhancing energy outcomes. Unfortunately, the Energy Compact[27] does not unbundle the PURE financing needs from DRE and energy efficiency. A national strategy for the productive use of renewable energy is under development that will provide a clearer picture of the funding required exclusively for PURE. Financiers or program managers do not publicly report on most investments disaggregated for PURE. In some cases, where a program covers multiple countries, the total program value is reported, but the allocation per country, sector or technology is rarely provided.

2.4 Role of DFIs in Financing PURE and Clean Cooking

International development partners (IDPs) that encompasses DFIs, Foundations and Bilateral institutions play a catalytic role in mobilizing capital for climate-aligned investments – clean cooking and PURE as discussed in subsequent sections. By absorbing part of the financial risk, they can crowd in private capital and enhance local banks' confidence to finance renewable energy and climate-related projects. This intermediary approach is designed to support sustainable scaling, facilitate knowledge transfer and strengthen institutional capacity within the domestic financial ecosystem.

The following are examples of interventions supported through IDP financing:

26 *Ministry of Energy and Petroleum. (2025). National Energy Compact 2025 – 2030 For the Republic of Kenya. https://thedocs.worldbank.org/en/doc/69843ca047603c8c4e993d2ff997f555-0010012025/original/Kenya-National-Energy-Compact-Mission-300.pdf*

27 *Energy Compact is a voluntary UN commitments uniting stakeholders to achieve universal clean energy access by 2030 and net-zero emissions by 2050 through trackable actions. The framework emerged from the 2021 UN High-level Dialogue on Energy*

De-risk early and marginal projects	They provide concessional loans, guarantees, and technical assistance to catalyse private capital into off grid/PURE and clean cooking, where ticket sizes are small, paybacks can be long, and customer affordability is a constraint. *Examples include results-based financing (RBF) for KOSAP's clean cooking and solar PV roll-out in 14 underserved counties, which pays upon verified connections/adoptions. This has helped to lower the market-entry risk for companies*[28].
Enable LFIs to extend tenor and reduce cost of capital via on-lending	Shell Foundation/FCDO CASEE grant to Kenyan Co-operative Bank lengthened loan tenors and cut pricing for SMEs and small holder farmers purchasing solar powered irrigation systems, cold chain and refrigeration solutions, solar dryers and dehydration equipment's[29].
Provide working capital for PAYGo/ PURE assets	IFC, BII, FMO, Norfund and others supply hard/local-currency debt directly to PAYGo firms (e.g., M-KOPA, Sunculture and Sunking) to finance productive and household devices at scale and overcome end-user affordability barriers[30].
Catalyse mini-grid investment and productive loads	AfDB/SEFA finance technical assistance blended instruments for mini-grids and associated productive uses (cold chains, milling, irrigation), crowding in commercial lenders[31].
Backstop local banks with guarantees	Facilities such as Africa Guarantee Fund (AGF) provide portfolio guarantees help banks scale green MSME lending (including cookstoves and PURE assets) by sharing risk. LFIs might otherwise be reluctant to lend to these subsectors due to perceived high risk[32,33].
Mobilise domestic financial institutions to build long-term green-finance portfolios	Green Energy and Climate Finance Facilities are designed not only to provide concessional capital, but more importantly to transform domestic banking systems so that LFIs and leasing companies can develop permanent, scalable and self-sustaining green-finance portfolios. For example, the CASEE project supported by Shell Foundation and FCDO to Cooperative Bank is expected to unlock approximately Ksh 2.8 billion (10x) from its balance sheet.

28 *World Bank. (2024, October 15). Kenya: Off-grid Solar Access Project for Underserved Counties (P160009) – Restructuring Paper. https://documents1.worldbank.org/curated/en/099100324105044332/pdf/P1600091ec864f0a019beb1b050d0714ea4.pdf*

29 *Shell Foundation. (2025). Shell Foundation annual report and accounts 2024 (Annual Rep.). Shell Foundation. Retrieved from https://shellfoundation.org/wp-content/uploads/2025/07/Shell_Foundation_Annual_Report_and_Accounts_2024_EY-SF-signed.pdf*

30 *International Finance Corporation. (2023, May 15). IFC sustainability-linked loan to M-KOPA to boost access to financial services in Eastern Africa [Press release]. https://www.ifc.org/en/pressroom/2023/ifc-sustainability-linked-loan-to-m-kopa-to-boost-access-to-financial-services-in-eastern-africa?utm*

31 *African Development Bank (AfDB). (2024, July). Sustainable Energy Fund for Africa (SEFA) Annual Report 2023. https://www.afdb.org/en/documents/sustainable-energy-fund-africa-sefa-annual-report-2023*

32 *African Guarantee Fund. (2022, April). AGF issues KES 1.5 billion guarantee facility to Family Bank to fuel growth of SMEs in Kenya. Retrieved from https://africanguaranteefund.com/agf-issues-kes-1-5-billion-guarantee-facility-to-family-bank-to-fuel-growth-of-smes-in-kenya*

33 *The Co-operative Bank of Kenya. (2021, September 21). Press Release: AGF-Co-op Bank Partnership agreement to boost green financing in Kenya [Press release]. https://www.co-opbank.co.ke/wp-content/uploads/2021/11/Press_Release_AGF_Coop_Bank_Partnership_21_09_2021_docx_c2c4b8f2d6.pdf*

A case of DFI unlocking capital from LFI

The Catalysing Agriculture by Scaling Energy Ecosystem (CASEE)

Shell Foundation in conjunction with FCDO granted Co-op Bank a £2 million grant to support farmers to acquire and use productive green energy assets at scale. This improved risk weighted asset position freeing the balance sheet capacity. As a result, the bank was able to extend a larger volume of credit, offered longer loan tenors and lower interest rate. The bank was able to unlock about KSh 2.8 billion.

Mechanism: CASEE pays 6 % of every loan's interest in Co-operative Bank, then Co-op Bank drops their rate from 14 % → 8 %. This means, the risk drops and Co-op Bank can lend more from its own balance sheet. Approximately, 328,000 farmers each getting an average of KSh 100,000 loan = KSh 2.8 billion.

2.5 Impacts Investors

Impact investing has become a key driver of capital for clean cooking, off-grid solar, mini-grids and PURE. Impact investors seek both financial returns and measurable social/environmental outcomes, making them well suited to support undercapitalised energy-access markets[34,35].

Impact investors are increasingly directing capital toward clean energy solutions as they recognise both the commercial viability and climate importance of the sector. Funds such as SunFunder/Mirova, responsAbility, ElectriFI, and AlphaMundi have expanded investment in PAYGo solar companies like d.light and BBOXX[36], solar irrigation innovators such as SunCulture[37] and Futurepump[38] and cold storage or agro-processing technologies deployed by enterprises like EcoZen and ColdHubs[39]. This reflects a global trend where energy access and climate resilience have become core pillars of sustainable investment strategies[40,41]. Annex 3 shows types of financing from impact investors.

Solar-powered refrigeration unit used by a business for cooling drinks

Image Courtesy: Solar Freeze/Ashden

34 *Acumen. (2022). Energy Access investments and portfolio highlights. Acumen. https://acumen.org*
35 *Mirova / SunFunder. (2023). Gigaton Fund: Thematic investment report. Mirova SunFunder. https://www.sunfunder.com*
36 *d.light. (2023). Investment and PAYGo financing updates. d.light Design. https://www.dlight.com*
37 *SunCulture. (2023). PURE agriculture technology impact and investment disclosures. SunCulture Kenya. https://sunculture.io*
38 *Futurepump. (2022). Solar irrigation impact data & investor partnerships. Futurepump Ltd. https://futurepump.com*
39 *ColdHubs. (2022). Off-grid cold storage for agriculture: Annual impact report. ColdHubs Ltd.*
40 *Triodos Investment Management. (2023). Energy & climate funds annual impact report. Triodos IM. https://www.triodos-im.com*
41 *responsAbility Investments AG. (2023). Climate finance and renewable energy portfolio report. responsAbility. https://www.responsability.com*

2.6 Local Financial Institutions

With the type of funding from IDPs, the Local financial institutions (commercial banks, MFIs, and SACCOs) are increasingly participating in productive use of energy and clean cooking lending through:

Introducing green credit lines — LFIs are partnering with DFIs to offer loans for solar, biogas, LPG, and energy-efficient appliances (*e.g., Equity Bank through FINE, Co-operative through CASEE programs*).

Sustainability-linked lending — The LFIs offers preferential terms for businesses that meet environmental or social performance indicators.

ESG integration — The LFIs are mainstreaming Environmental, Social, and Governance (ESG) criteria into credit assessment and risk management frameworks.

Technical Assistance — Strengthening institutional knowledge on climate risk assessment, green project appraisal, and impact measurement.

Examples of key facilities working either with LFIs and directly with the private sector to advance PURE and clean cooking directly or indirectly are listed in ***Table 2*** below.

Table 2 *List of facility working with LFIs to advance green agenda*

DFI/Int'l org	Kenyan FI partner(s)	Facility/ programme	Model used	What it finances (energy/PURE/ cooking)
IFC (World Bank Group)[42]	KCB Bank Kenya	IFC–KCB Climate Finance Facility	Senior loan to on-lend for green projects	Renewable energy, energy efficiency, green buildings (PURE-relevant)
Proparco[43] *(AFD Group)*	KCB Bank Kenya	Climate & Women Credit Line	Credit line (on-lending; ≥30% to women per 2X)	Climate-related investments incl. EE/ RE in health, education, SMEs (PURE/cooking-adjacent)
BII (UK DFI)[44]	KCB Bank Kenya	Tier-2 Capital for Climate & Women	Tier-2 capital (regulatory capital to expand climate lending)	Expands KCB capacity to lend to climate projects & women-led SMEs

(cont...)

42 *International Finance Corporation. (2022, September 7). IFC, KCB partnership to boost access to climate finance in Kenya. Retrieved from https://www.ifc.org/en/pressroom/2022/ifc-kcb-partnership-to-boost-access-to-climate-finance-in-kenya*

43 *KCB Group. (2024, May 16). KCB Bank and Proparco sign US$95M credit line for sustainable projects and women support. https://ke.kcbgroup.com/about-us/news-room/business/kcb-bank-and-proparco-sign-us%2495m-credit-line-for-sustainable-projects-and-women-support*

44 *British International Investment. (2025, February 24). BII provides US$ 100 million Tier 2 capital to KCB Bank Kenya to boost climate and women-led enterprise financing. https://www.bii.co.uk/en/news-insight/news/british-international-investment-in-100m-deal-with-kcb-for-climate-and-women-funding/*

DFI/Int'l org	Kenyan FI partner(s)	Facility/ programme	Model used	What it finances (energy/PURE/ cooking)
BII, FMO, Norfund + Local banks (Absa, Co-op, KCB, Stanbic, Citi)[45]	Absa, Co-op, KCB, Stanbic, Citi	Sun King Kenya securitisation	Local-currency securitisation of PAYGo receivables; DFI mezzanine, banks in senior	Off-grid solar for ~1.4m households & micro-biz (PURE-adjacent loads)
NORAD (Norway)[46]	Equity Bank	FINE – Financing Innovation 'n' Entrepreneurship	Concessional grant window to catalyse SME lending	Blue economy, marine-litter, renewable energy MSMEs (Kenya/ Tanzania)
Shell Foundation (with FCDO) – CASEE[47]	Co-operative Bank of Kenya	CASEE pilots for smallholder PUE	Interest-rate buy-down grant + TA with bank on-lending	Loans (via co-ops) for PUE assets: biodigesters, solar pumps, milk chillers, maize millers, cold storage, lanterns
Danida (DGBP)[48]	Works with lenders & tech partners in value chains	Loss to Value (L2V) – Green Cold Chain (Nakuru/ Nyandarua)	Blended programme to create bankable models + financing solution for cold rooms (PURE)	Energy-efficient cold storage for farmer co-ops; aims to link to local FI lending
CEI Africa (KfW/BMZ, SDC, ADA)[49]	Works through Kenyan banks & mini-grid developers	RBF & Smart Outcomes windows	Results- / outcome-based grants that de-risk FI lending to PUE on mini-grids	PUE equipment (agro-processing, cold-chain, e-cooking, e-mobility) on GMGs; supports crowd-in of debt
UNDP & UNCDF (Mitigation Action Facility)[50]	Partners with GoK; de-risks private/FI investment	Kenya Solar Cold-Chain Project	Blended-finance & de-risking to mobilise capex; pipeline for local-currency loans/ leases	Solar-powered cold rooms nationwide (PURE)—income & methane-reduction benefits

45 *Citigroup. (2025, July 28). Citi–Sun King securitization to deliver solar for over a million Kenyans. [Press release]. https://www.citigroup.com/global/news/press-release/2025/citi-sun-king-securitization-deliver-solar-million-kenyans*

46 *Energi og Klima. (2024). Klimafinansiering 2023: Øremerket og multi – detaljert [Excel spreadsheet]. https://api.energiogklima.no/wp-content/uploads/2024/09/Klimafinansiering_2023_oremerket-og-multi_detaljert.xlsx*

47 *Shell Foundation. (2025). Shell Foundation Annual Report and Accounts 2024. https://shellfoundation.org/wp-content/uploads/2025/07/Shell_Foundation_Annual_Report_and_Accounts_2024_EY-SF-signed.pdf*

48 *Danida Business Partnerships. (n.d.). Reducing food loss and waste through green cold chain solutions for farmers and traders in Kenya [Project description]. Retrieved November 30, 2025, from https://danida-business-partnerships.dk/projects/reducing-food-loss-and-waste-through-green-cold-chain-solutions-for-farmers-and-traders-in-kenya/*

49 *PIDG Ltd. (2023, June 1). CEI Africa awards a total of USD 7.3M in RBF grants to three Kenyan GMG developers. Retrieved from https://pidg.org/cei-africa-awards-a-total-of-usd-7-3m-in-rbf-grants-to-three-kenyan-gmg-developers*

50 *United Nations Development Programme. (2025). UNDP, UNCDF and WRI launch climate projects funded by Mitigation Action Facility to boost Kenya's food security and clean transport [Press release]. https://www.undp.org/kenya/press-releases/undp-uncdf-and-wri-launch-climate-projects-funded-mitigation-action-facility-boost-kenyas-food-security-and-clean-transport*

2.6.1 | Categories of Local Financial Institutions

Commercial Banks

Commercial banks in Kenya play a pivotal role in green financing by channelling large-scale capital into sustainable development projects and modifying their business models to incorporate environmental, social and governance (ESG) risks. Local commercial banks matter because they control the dominant channels of credit intermediation, sit closest to SMEs and households, price risk in KES, and can crowd in institutional and retail capital. As key intermediaries in the financial system, these banks can implement blended finance in collaboration with DFIs, guarantee providers and create credit lines that will be able to support PURE and clean cooking.

In the context of clean cooking and PURE financing, commercial banks are best placed to support **enterprise-level investments and higher-ticket customer segments** (for instance, off-grid commercial cook-stove manufacturing, industrial biomass processing, or large solar-based assembling plants etc). These ticket sizes often run from hundreds of thousands to millions of US dollars, reflecting the scale and complexity of such investments. They also serve as aggregation points: combining smaller subsidiary loans or bundling portfolios of projects to spread risk and build bankable exposures.

The importance of commercial banks lies in their capacity to:

1. Provide long tenor debt and credit facilities for capital-intensive green assets which may have extended pay-back periods during early adoption phases.
2. Underwrite risk, apply rigorous due diligence, and deploy structured finance tools (e.g. syndicated loans, credit enhancements) which can attract institutional investors[51].
3. Develop and integrate internal environmental risk frameworks to minimise default due to climate/exposure risk, thus safeguarding not only their own financial stability but also enabling broader flows of green finance[52].
4. Signal market credibility: when a bank backs a green project, it serves as a “first-mover” signal, attracting additional capital and encouraging upstream value chain participation.

Examples of Commercial Banks that are actively involved either in PURE and or clean cooking lending are: Kenya Commercial Bank, Stanbic Bank Kenya, Cooperative Bank of Kenya, ABSA Bank Kenya and Equity Bank. The section below shows some examples of **financial structuring** by commercial banks to lend to the private sector in clean cooking and PURE.

Securitisations and structured deals

The SunKing Kenya receivables securitization (2025) was a landmark local-currency transaction backed by **ABSA, Co-operative Bank, KCB, Citi and Stanbic**, with DFIs providing mezzanine support. The deal is expected to finance roughly 1.4 million productive assets - solar products and smartphones in Kenya, converting PAYGo receivables into an investable asset class and crowding in local banks at scale.

51 *Dzadzua, M. (2024). The role of commercial banks in promoting sustainable development. Kutaisi University. https://cue.edu.ge/Articles_pdf/fa4c8179c6fc2a93c934fb47e21fb3b5.pdf*

52 *Mensah, A. (2025). Role of green financing in enhancing financial stability of commercial banks in Ghana. International Journal of Finance, 10(2), 53–62. https://doi.org/10.47941/ijf.2577*

A complementary corporate-scale example is **Safaricom's Sustainability-Linked Loan (SLL)**, a multi-bank facility tied to PURE KPIs and diesel displacement at telecom towers and base stations[53,54].

Green-credit products lines

Green-credit products lines. KCB's clean-energy product offers unsecured finance (up to 100%) and promotional pricing with tenors up to five years for schools (the loans to schools is collateral free, 100% financing,@9.75% per year, tenor upto 5-7 years, ticket size -upto Ksh 20 million for public school and Ksh 10 million for private schools), Food Business Operators (FBOs), and SMEs. The product ranges from rooftop PV, solar water heating, LPG/biogas and energy-efficiency retrofits. In 2022, IFC extended a US$150 million climate line to KCB to expand renewable energy, energy efficiency, climate-smart projects, and green buildings[55].

Equity Bank's **EcoMoto** is a digital clean-energy loan product that enables customers to borrow via their mobile **Equitel** banking to purchase **energy-efficient cookstoves and other clean cooking and lighting technologies**, repaid in affordable instalments[56]. It expands access to modern energy solutions for low-income households, reducing reliance on biomass, improving health, and lowering carbon emissions while supporting broader clean cooking adoption in Kenya's off-grid markets.

Stanbic's Solar PV Finance supports **grid-tied, hybrid, and off-grid systems for Climate and Industrial (C&I)** clients. Co-operative Bank's SUNREF line delivers concessional pricing and longer tenors for off-grid solar, Energy Efficiency (EE), biomass-to-energy and mini-hydro[57].

Guarantee facilities and ecosystem support

African Guarantee Fund's Green Guarantee and related risk-sharing facilities with commercial banks help extend green MSME lending, especially for solar pumps, cold rooms, and other PURE assets otherwise blocked by collateral hurdles. On the clean cooking front, large DFI facilities into manufacturers and distributors (e.g., BURN) create appliance-finance demand that Kenyan banks can now warehouse and securitize locally as receivables portfolios mature[58–60].

53 *KCB Group. (2024, Aug. 20). Sustainability Report 2023 (green lending highlights). https://carbonaccountingfinancials.com/ (PDF). carbonaccountingfinancials.com*

54 *Agence Française de Développement. (n.d.). SUNREF: AFD Group's green finance label. https://www.afd.fr/ (program page). afd.fr*

55 *KCB Group. (2024, Aug. 20). Sustainability Report 2023 (green lending highlights). https://carbonaccountingfinancials.com/ (PDF). carbonaccountingfinancials.com*

56 *Equity Group Foundation. (n.d.). Green initiatives: EcoMoto program. https://equitygroupfoundation.com/green-initiatives*

57 *Co-operative Bank of Kenya. (n.d.). Energy & natural resources. https://www.co-opbank.co.ke/corporate/energy-natural-resources (describing partnership with SUNREF for off-grid solar, EE, biomass, and mini-hydro financing with innovative solutions including longer tenors)*

58 *The Standard. (2022, February 23). Absa inks Sh1.25 billion credit guarantee deal for SMEs. https://www.standardmedia.co.ke/business/article/2001438317/absa-inks-sh1-25b-credit-guarantee-deal-for-smes*

59 *African Guarantee Fund. (2021, Sept. 21). AGF partners with Co-operative Bank to boost green financing in Kenya (USD 7.5 m portfolio guarantee). https://africanguaranteefund.com/; Co-op Bank press release (PDF). African Guarantee Fund - English+1*

60 *Equity Group Holdings. (2025). Equity Group and African Guarantee Fund scale up transformative partnership with USD 500 million (KES 64 billion) frameworks to accelerate MSME financing. https://equitygroupholdings.com/equity-group-and-african-guarantee-fund-scale-up-transformative-partnership-with-usd-500-million-kes-64-billion-framework-to-accelerate-msme-financing/*

Micro Finance Institutions

Microfinance institutions (MFIs) are pivotal in advancing clean cooking and PURE to the last mile as they occupy a critical position in the green finance ecosystem by serving low-income populations, micro-entrepreneurs and distributed clean energy or clean cooking adopters who are beyond the reach of larger banks. Green microfinance extends conventional microcredit to enable investments in low-carbon technologies such as solar home systems, efficient biomass cook-stoves, small biogas digesters, drip irrigation powered by renewables and small-scale PURE equipment. Studies shows that MFIs are increasingly integrating "green" portfolios to respond to client demand and institutional investors[61].

From a ticket-size perspective, MFIs typically provide relatively small loans (Ksh 10K to Ksh 5 million) to households or micro-enterprises. These include financing for clean cook-stoves, solar home systems, small-scale biomass units, or micro-water-pumps for agro-processing. The smaller ticket sizes and high outreach make MFIs indispensable for reaching remote, underserved or rural segments. Unlike commercial banks, MFIs have field officer networks, group lending methodologies, and flexible underwriting for clients with limited collateral or credit history.

The importance of MFIs in the context of clean cooking and PURE is manifold:

Inclusivity	They extend finance to end-users and small businesses who might otherwise be excluded by commercial banks due to transaction cost, risk perception or lack of collateral.
Behavioural change and market creation	MFIs often combine finance with technical assistance, awareness creation and follow-up, thereby facilitating adoption of new technologies (e.g., efficient cook-stoves) and creating sustainable demand[62].
Aggregation of micro-investments	By handling many small loans, MFIs can demonstrate scalability, portfolio performance and track record, providing data on customer segments or nascent sectors with pave the way for upstream investors or blended finance providers.
Risk adaptation and local knowledge	They often have closer links to clients, understand local risk dynamics (especially climate/rural ones), and can tailor credit products (flexible repayment, grace periods) to the specific cash-flow patterns of the end-users.

61 *Adero, M. (2020, December 18). The role of microfinance institutions in green financing (Working paper). German Sparkassenstiftung Eastern Africa. https://sparkassenstiftung-easternafrica.org/media/detail/role-of-microfinance-institutions-in-green-financing-1039*

62 *Allet, M. (2012, April). Why do microfinance institutions go green? Microfinance Gateway. https://www.findevgateway.org/sites/default/files/publications/files/mfg-en-paper-why-do-microfinance-institutions-go-green-apr-2012.pdf*

MFIs can convert concessional or catalytic funding into end-user credit for small assets that commercial banks overlook due to transaction costs or perceived risks. **Typical mechanisms include:**

1. Green energy loan products
2. Vendor-linked credit with vetted solar/clean-cooking suppliers
3. PAYGo integrations for receivables-based lending
4. Results-based financing (RBF) and challenge funds that create incentives for last-mile distribution[63]
5. Risk-sharing via guarantees or insurance products.

For example, the EU under the AgriFi programme run a challenge fund with Equity Bank – the bank oversaw financing window, due diligence, loan disbursement while the grant capital was used to de-risk/accelerate the adoption. These mechanisms address affordability constraints (high upfront costs), enable longer tenors aligned to cash-flow, and reduce perceived technology risk through approved vendor lists and warranties.

At the national scale, there are several MFIs such as **Faulu Microfinance Bank, Kenya Women Microfinance Bank (KWFT), Rafiki Microfinance Bank,** and **SMEP Microfinance Bank** that maintain extensive branch networks and diversified product portfolios. Their nationwide presence positions them as critical channels for distributing green finance instruments, such as credit lines for LPG transitions, solar home systems (SHS), biogas units, improved cookstoves and other PURE technologies. Many of these institutions integrate green lending within broader livelihood, micro-enterprise, and household-resilience financing models, thereby expanding adoption beyond urban centres to peri-urban and deep rural markets.

Complementing these are regionally oriented and niche MFIs. These include **Musoni Microfinance, Juhudi Kilimo, ECLOF Kenya, VisionFund Kenya, Yehu Microfinance Trust, Oiko Credit** among others. They predominantly serve rural and agricultural-focused market segments. These MFIs often operate in counties with limited presence of large banks, making them essential conduits for last-mile energy access finance. Their lending methodologies is typically based on group lending, agricultural value chain financing or community-embedded field officers, which create strong platforms for distributing small-ticket energy loans with high repayment performance. Institutions such as Juhudi Kilimo and VisionFund have demonstrated strong alignment between energy access and the enhancement of livelihoods, farm productivity, and household resilience.

63 *Under KOSAP project, KWFT was a one of the distributors of clean cooking products through an RBF scheme.*

Table 3 *MFIs providing clean cooking and PURE financing*

MFI	Key Instruments	PURE/Clea Cooking
KWFT (Kenya Women Microfinance Bank)	KOSAP-linked RBF clean-cooking deployments; household & micro-enterprise energy loans	Clean cooking: efficient stoves/ LPG kits; Off-grid access & small PURE appliances
Faulu Microfinance Bank	Green/agriculture loans; partner/ vendor-linked PURE credit; TA with GIZ	PURE: solar irrigation, dryers, cold-chain; Clean cooking through bundled energy loans
Musoni Microfinance	Digital microloans; PAYGo integrations; vendor finance	Off-grid access (SHS) leading to productive uses; potential e-cooking finance rails
Juhudi Kilimo	Clean Energy Loan: asset-based agricultural lending	PURE: solar pumps, biogas; Clean cooking: LPG/stoves
ECLOF Kenya	Green Energy Loan	PURE: solar pumps, small C&I loads; Clean cooking: efficient stoves/LPG
Vision Fund Kenya	Clean & Renewable Energy Loan; agri-MSME bundles	PURE: dairy/poultry/irrigation with solar/biogas; Clean cooking via household loans
Yehu Microfinance Trust	Green Energy Loan; group lending	PURE: micro-enterprise solar; Clean cooking: efficient stoves

Saving and Credit Cooperative Organisations (SACCOs)

SACCOs mobilize domestic savings and extend credit to employed and self-employed members at scale. Saccos and similar cooperative financial institutions constitute a vital community-level layer in green financing in Kenya where cooperatives are deeply rooted in local savings and credit culture. These institutions offer competitive, accessible financing for green assets such as clean cook-stoves, solar water pumps, agro-processing equipment, small clean cooking entrepreneur setups – leveraging member savings, trust networks and local presence. Recent commentary highlights SACCOs in Kenya embracing green finance product lines, such as clean energy loans, climate-smart agriculture finance, and water-efficiency equipment[64]. It is worth noting that the ticket size ranges from Ksh10k to Ksh5 million and are dependent on SACCOs capital as they are diverse ranging from small to some comparable to a Bank.

64 *Impact Africa Consulting Limited. (2025, July 4). Unlocking the potential of green financing in saving and credit cooperative societies (SACCOs). https://www.impactingafrica.com/unlocking-the-potential-of-green-financing-in-saving-and-credit-cooperative-societies-sacco*

SACCOs convert member savings and wholesale liquidity (from apex bodies and partners) into end-user credit tailored to member profiles. **Channels include:**

1. Green energy loan products with friendly tenors.
2. Vendor-linked credit with vetted solar/clean-cooking suppliers.
3. Digital utility-enabled finance integrations (use of mobile technology as a platform for financial transaction) that leverage electricity connection/ payment rails; and
4. Collaborations with development partners on results-based financing (RBF) or awareness campaigns. These approaches reduce upfront costs, align repayments to income, and cut perceived technology and performance risk.

The importance of SACCOs in the green finance value chain is distinguished by several factors:

Member-anchor and trust-based financing

SACCOs are embedded in communities, possess savings mobilisation capacity and can deliver tailored finance to members with lower transaction cost and better alignment with member needs.

Last-mile outreach

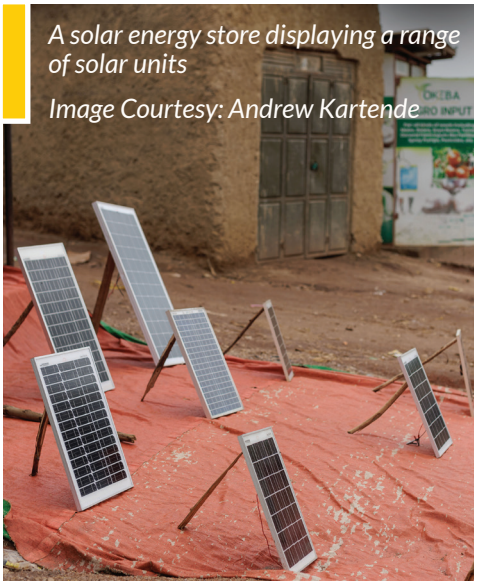
SACCOs often serve rural or semi-urban segments, enabling diffusion of green technologies like efficient cook-stoves, solar water heating, clean cooking appliances etc., beyond conventional banking reach.

Product innovation and alignment with climate goals

SACCOs are increasingly developing green-designated products (e.g., "Green Energy Loan") and aligning with national green finance taxonomies and climate resilience frameworks[65].

Opportunity for de-risking upstream

Given their smaller scale but local presence, SACCOs can benefit from wholesale green facilities (Example of a wholesale green facility - Kenya Union of Saving and Credit Cooperative Organisation (KUSCCO) is an apex body that provides financing support to SACCOs. It partners with development organisations where funding is given to KUSCCO and then it on-lend to the SACCOs), donor grants, capacity building, and guarantees to manage risks of green lending, especially in rural contexts.



A solar energy store displaying a range of solar units

Image Courtesy: Andrew Kartende

65 *Kuza Sacco Society Limited. (n.d.). Green energy loan. https://www.kuzasacco.com/green-energy-loan/*

Table 4 *Example of active Saccos in clean cooking and PURE*

(List not exhaustive)

SACCO	Key Instruments/ Products	PURE/ Clean-cooking Link	Example Activities/ Counterparties
Stima DT SACCO	Green loan messaging; payroll-deduction loans; asset finance	PURE: rooftop PV and efficient appliances for member businesses; Clean cooking via appliance finance	Green-loan emphasis in public events; member credit products
Mwalimu National SACCO	Solar financing offers; vendor partnerships; 24-month tenor	PURE: PV for schools/ teachers' businesses; foundation for institutional e-cooking adoption	Public campaign to finance solar installations (24-month repayment)
Safaricom SACCO	Payroll-deduction loans; potential vendor MoUs for PV/appliances	PURE: refrigeration, POS, PV for micro-retail; Clean cooking via household/appliance loans	Operates within Safaricom's broader renewables SLL ecosystem
Maisha Bora SACCO	Vendor-linked solar kit financing (StarTimes partnership)	PURE: small enterprise PV; Clean cooking via appliance bundling	Low-interest solar kit financing in partnership with StarTimes Solar
KUSCCO (apex)	Central Finance Fund liquidity; Jiko Safi cookstove fund; Green Energy loan templates	PURE: irrigation and agri-energy (SNV collaboration); Clean cooking: efficient stoves/LPG via SACCOs	Sector-wide enablement, advocacy, training and standardized green products

A solar-powered cold room facility for storing farm produce

Image Courtesy: Soko Fresh/Ashden

2.7 Finance Flow from 2021–2025

This section draws on analysed data from a range of international financial institutions, highlighting how different financing actors support PURE and clean cooking across diverse markets and investment contexts. Kenya's energy-transition finance from 2021–2025 shows a decisive shift from donor-led pilots to blended structures that mobilize domestic capital through Local Financial Institutions (LFIs) – commercial banks, MFIs, and SACCOs. Over this period, an estimated amount of US$ 2 billion was available to the green energy where PURE and Clean Cooking falls over the period under review (2021-2025).

Kenya's energy-transition finance from 2021–2025 shows a decisive shift from donor-led pilots to blended structures that mobilize domestic capital through Local Financial Institutions (LFIs).

Local Financial Institutions (LFIs) have increasingly embraced the green finance agenda, demonstrating a growing appetite to support climate-aligned initiatives such as clean cooking and PURE. Several dedicated facilities have been established to channel concessional and blended capital through LFIs, enabling them to extend affordable and friendly credit characterized by extended loan tenor, reduced interest rate, flexible collateral, and technical assistance among other enabling elements to the sector.

However, the absence of subsector granularity within green finance frameworks creates structural distortions that weaken capital allocation, constrain enterprise growth, and delay progress toward national clean energy goals. When clean cooking and PURE are grouped under broad, undifferentiated labels such as "green finance", "climate finance" or "renewable energy", policy makers, DFIs, and local financial institutions (LFIs) are unable to distinguish the fundamentally different business models, risk profiles, and financing needs embedded within each subsector. This aggregation conceals the unique characteristics of both markets, leading to several critical consequences[66,67].

2.7.1 | Finance Flow in Kenya 2021–2025 (aggregate)

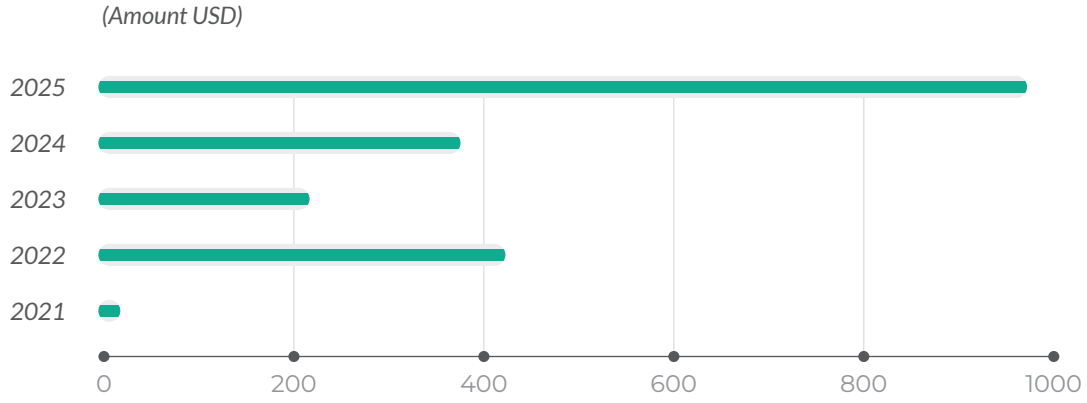
Figure 2 below presents the trajectory of green-energy finance[68] flows directed to the private sector between 2021 and 2025 in Kenya, showing a transition from low early commitments to substantial capital mobilisation in later years. In 2021, financing levels were negligible, reflecting a nascent investment environment with limited project readiness and constrained private-sector absorption capacity. A marked rise to over US$ 400 million in 2022 signals the entry of catalytic funding, increased blended-finance deployment and stronger engagement by development partners.

66 *International Energy Agency. (2023). A vision for clean cooking access for all. IEA. https://www.iea.org/reports/a-vision-for-clean-cooking-access-for-all*

67 *ESMAP. (2022). Productive uses of electricity: A review of impacts and lessons learned from off-grid settings. World Bank. https://esmap.org*

68 *PURE and Clean Cooking are under the green finance. Hence the assumption is that, as they are part of the ecosystem, where the green energy financing is being applied, PURE and clean cooking falls.*

Figure 2 *Total funding flow between 2021 to 2025*



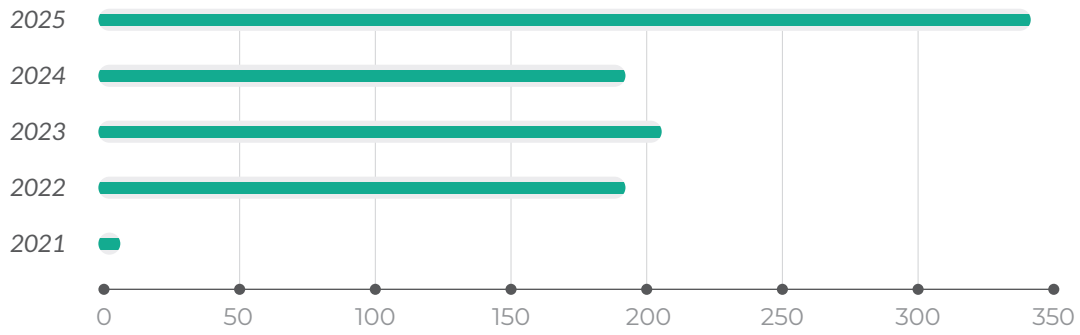
A correction followed in 2023, with flows falling to just over USD 200 million[69]. In 2024, financing rebounded to nearly USD 380 million, supported by improved risk-sharing instruments, maturing business models, and increased investor confidence in off-grid and clean-energy enterprises.

The sharp increase in 2025, approaching US$ 1 billion, is primarily driven by two landmark transactions: the D. light BLK 2 securitisation valued at USD 604 million and the Sun King capital raise of USD 156 million. These mega-deals significantly boosted total financial flows, demonstrating the growing scale, creditworthiness, and investment attractiveness of leading green-energy companies in Kenya.

2.7.2 | Finance Flow through LFIs in Kenya between 2021–2025

Figure 3 below illustrates the progression of green-energy financing channelled through Local Financial Institutions (LFIs) between 2021 and 2025. Overall, the trend reflects a maturing domestic financing ecosystem, with LFIs increasingly positioned as critical intermediaries in scaling renewable-energy and clean-technology investments.

Figure 3 *Funding flow through financial institutions*



69 *This could be attributed to the Ukraine – Russian war shock and USA federal rate hike.*

In 2021, the flow of funds was minimal, indicating early-stage participation among Kenyan LFIs. Limited sector knowledge, perceived risk, and weak credit-appraisal capacity could have been the factors that constrained lending to green-energy enterprises during this period.

By 2022, financing increased sharply to approximately US$ 180 million, marking the first major expansion phase. This growth is likely linked to the introduction of DFI-backed credit lines, partial credit guarantees, and targeted technical-assistance programs that enabled banks and MFIs to begin lending to SMEs in the off-grid, clean cooking and PURE segments.

The upward trend continued modestly in 2023, reaching just over US$ 200 million. In 2024, funding declined marginally to US$ 180 million, but still maintaining significant participation relative to earlier years.

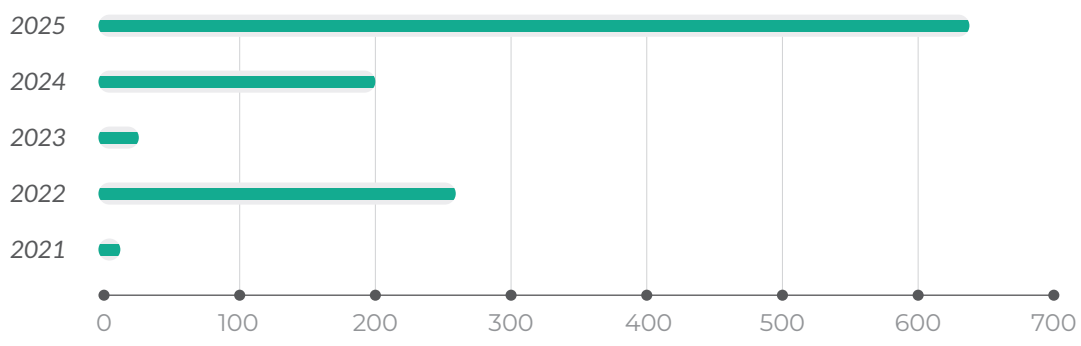
A major surge occurred in 2025, with flows exceeding US$ 330 million. This increase signalled improved sector confidence, stronger risk-sharing mechanisms, and enhanced internal capacity within LFIs to underwrite green-energy portfolios at scale. A major driver was the Sunking deal that was syndicated loan by Absa Bank, Citi, Cooperative Bank, Kenya Commercial Bank, and Stanbic Bank Kenya providing a senior tranche while British International Investment, FMO and Norfund provided a mezzanine tranche.

Separation of the funds for cooking and PURE was not possible as clean cooking and PURE are bundled under the green energy initiative umbrella. However, there is an opportunity to lobby through the Central Bank of Kenya reporting to be made more explicit.

2.7.3 | Direct Investment to the Private Sector in Kenya

Figure 4 below shows a sharp rise in direct investments in green-energy enterprises over the five-year period. In 2021, investment levels were negligible, reflecting early-stage market development. A significant jump occurred in 2022, reaching approximately US$ 240 million as investor confidence improved and early blended-finance structures matured. Investment dipped in 2023 but recovered in 2024 to around US$ 195 million, indicating renewed deal flow. The major surge in 2025 of approximately US$ 630 million reflects the closing of large-scale transactions (D-light transaction), particularly within the off-grid solar sector, signalling strong market consolidation and heightened investor appetite.

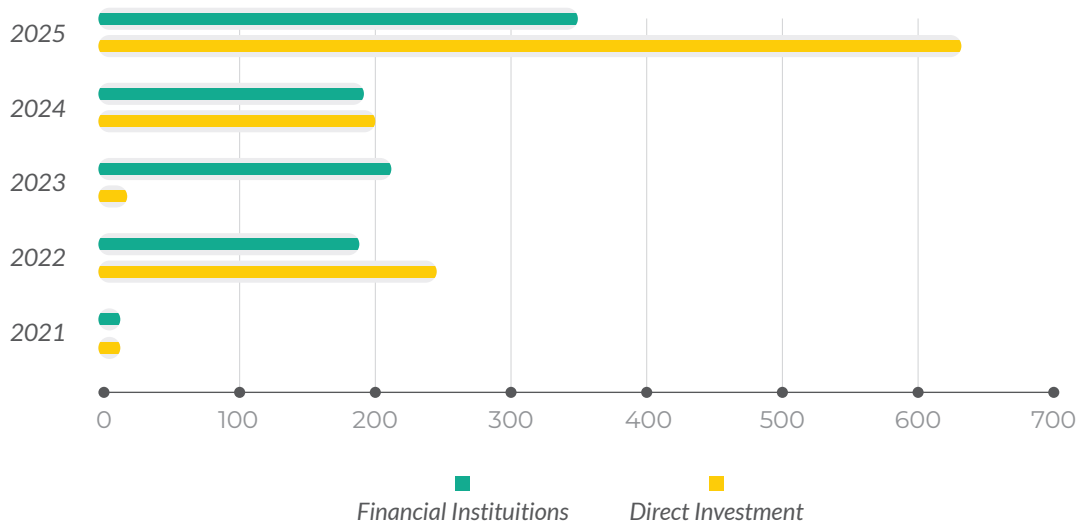
Figure 4 *Direct investment in the private sector*



2.7.4 Comparative Analysis Between Direct and Local Financial institutions

Figure 5 below shows two distinct but complementary financing pathways, direct investment and LFI mediated financing. It shows how capital flowed into the green-energy sector between 2021 and 2025. LFI financing demonstrates a steadier trajectory, gradually increasing from near-zero in 2021 to over US$ 330 million by 2025. This reflects progressive strengthening of LFI credit capacity, enhanced risk-sharing mechanisms and growing familiarity with green-energy lending.

Figure 5 *Comparison between fund flowing through LFIs and Direct investment*

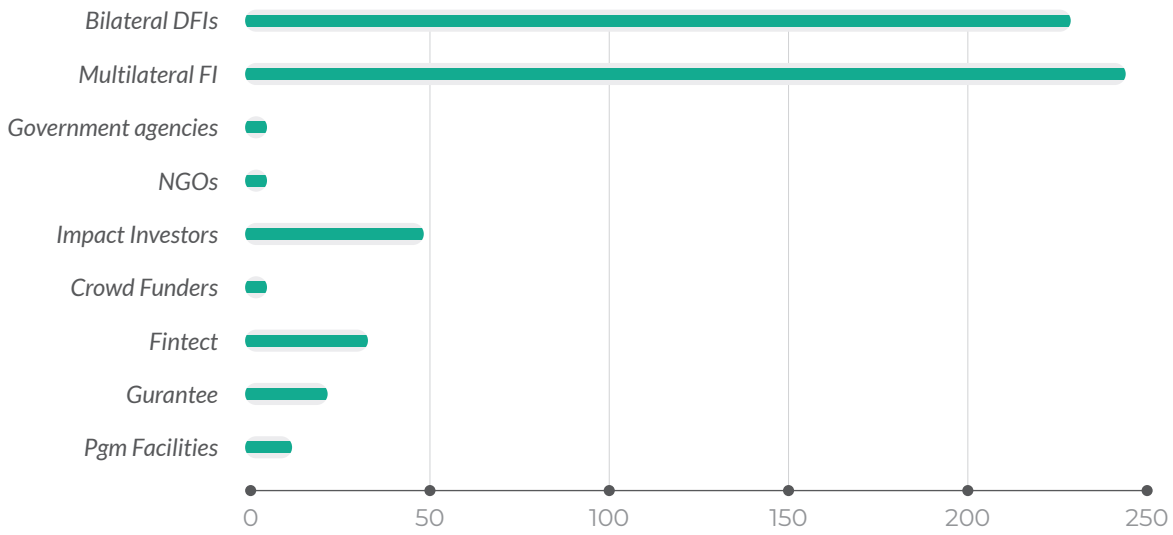


Direct investment from international development partners presents higher volatility but significantly larger spikes. Investments peaked sharply in 2022 and again in 2025, driven by major corporate-level deals and large capital raises, particularly within the off-grid solar segment. In contrast, 2023 saw a decline as global liquidity tightened.

By 2025, direct investment far exceeds LFI financing, indicating substantial investor appetite for scalable, market-leading enterprises. Together, the two channels show a maturing ecosystem combining large-scale capital injections with expanding domestic financial intermediation.

In addition, an analysis of funding flow by institution categories ***(Figure 6)*** shows that between 2021 and 2025, overall funding is heavily concentrated among bilateral DFIs and multilateral financial institutions, which together account for most of the capital deployed, each exceeding USD 200 million. Impact investors and fintech provide a secondary layer of financing, contributing modest but meaningful amounts. Guarantees and programme facilities play a smaller, catalytic role, while government agencies, NGOs, and crowdfunding contribute negligible volumes. Overall, the funding landscape is dominated by large development finance actors, with limited participation from public and grassroots funding channels.

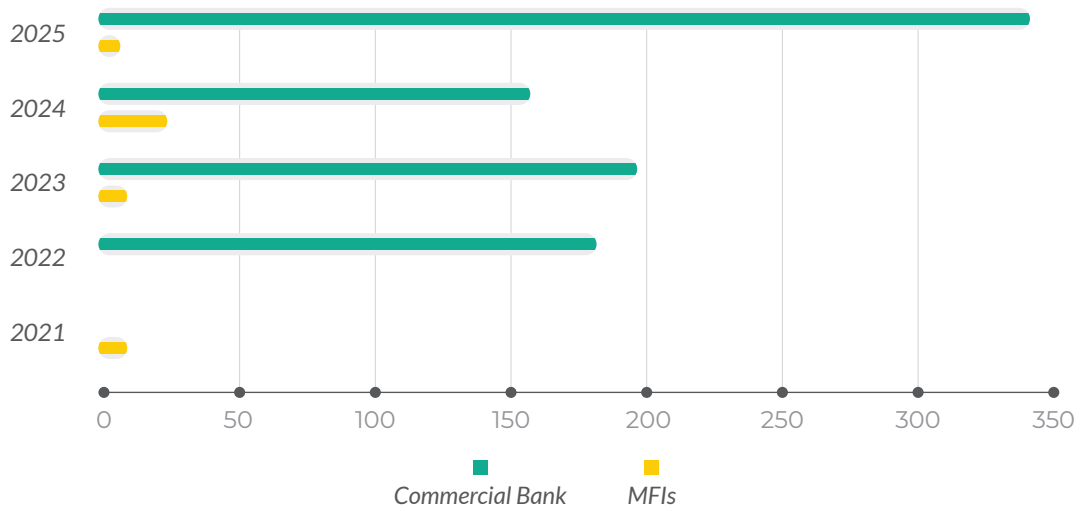
Figure 6 *Funding flow by institution categories (2021–2025) in Kenya*



2.7.5 | Comparative Analysis Between Commercial Banks and MFIs

Figure 7 below compares financing flows from commercial banks and microfinance institutions (MFIs) between 2021 and 2025, revealing two distinct patterns shaped by their differing mandates, market segments and risk appetites. Commercial banks consistently provide significantly higher levels of green-energy financing, rising from negligible levels in 2021 to over US$ 350 million in 2025. This reflects their focus on larger, corporate-level transactions including financing to manufacturers, distributors, and established private-sector enterprises within the renewable-energy and clean-cooking value chains. Their ability to structure long-tenor loans, deploy credit guarantees and underwrite bigger facilities positions them as the primary financiers of upstream and midstream actors.

Figure 7 *Comparison between Commercial Banks and MFIs*



In contrast, MFIs deploy much smaller volumes, peaking around US$ 20 million in 2024. MFIs specialize in last-mile consumer financing and small-ticket lending, primarily targeting end users, household adopters, micro-enterprises and informal-sector clients. Their role is essential in enabling affordability for technologies such as solar home systems, improved cookstoves, solar water pumps etc. MFIs also partner with private-sector companies to extend PayGo, Buy Now, Pay Later (BNPL), and other inclusive financing mechanisms.

Together, commercial banks and MFIs form a complementary ecosystem – Commercial Banks drive at corporate level while MFIs unlock adoption at grassroots level, ensuring green-energy solutions reach both markets effectively.

Table 5 *Examples of Financiers to MFIs in PURE and Clean Cooking in Kenya*

Upstream Financiers	Micro Finance	Products Financed
Bettervest (crowdfunding)	Fortune Credit Ltd	PURE and Clean Cooking
Oiko credit	Juhudi Kilimo	Biogas/Solar pumps
BlueOrchard	Juhudi Kilimo	Biogas/solar pumps
responsAbility	Musoni	Solar pumps, induction cookers
AGF+GoK Green Fund	ECLOF Kenya	Biogas, solar lanterns
Modern Cooking Facility for Africa (MCFA)	Rafiki DTMB	Burn Jiko, LPG, ecookers
AGF (AFAWA)	KWFT-DTB	Jiko, LPG, solar pumps
Shell Foundation	4R Digital - Daylipa Finance - financing micro entrepreneurs	Solar pumps
PREO	Daylipa	Solar water pumps

An entrepreneur displaying solar lanterns at their retail shop

Image Courtesy: Francis Kokoroko

3 Financing Models for PURE and Clean Cooking

Innovative financing models play a pivotal role in enhancing the scaling of PURE and clean cooking solutions by mobilising capital, reducing perceived risks and improving affordability for households and enterprises. In Kenya as well as in many Sub-Saharan African markets, high upfront costs, shallow credit markets and limited collateral restrict access to modern energy technologies. Tailored financing structures - ranging from concessional credit lines and partial guarantees to PAYGo asset-financing and securitisation of receivables - address these constraints by extending tenors, lowering interest rates, and unlocking liquidity for private-sector providers[70].

[70] *International Finance Corporation. (2024, February 27). Green and social bond impact report – FY 23. https://www.ifc.org/content/dam/ifc/doc/2024/ifc-green-and-social-bond-impact-report-fy-23.pdf*

Development finance institutions (DFIs) and climate funds increasingly use blended finance, combining grants, first-loss capital and TA to de-risk LFIs. This enables banks and microfinance institutions to reach SMEs distributing clean cooking solutions and PURE assets such as solar irrigation, cold storage, or milling equipment[71]. By aligning financial incentives with climate and energy-access outcomes, these mechanisms strengthen last-mile distribution, stimulate local manufacturing and support scalable business models.

Moreover, innovative instruments such as green bonds, results-based financing (RBF) and carbon-credit-backed lending help bridge commercial viability gaps while creating predictable revenue streams[72]. Effective financing models therefore constitute a foundational pillar for accelerating clean-cooking transitions and expanding PURE markets in Kenya.

3.1 Market Constraints to Local Financial Institutions

LFIs across Kenya face systemic barriers and gaps that limit their participation in financing enterprises in PURE and clean cooking. **The following are a mix of feedback from the KIIs and literature review.**

1. **Information asymmetry.** Many LFIs lack technical understanding of energy technologies, performance risks and end-user demand patterns, resulting in conservative credit-risk assessments and stringent collateral requirements[73]. An example of feedback from KIIs, *"banks need to increase their knowledge and capacity in renewable energy financing..."*

2. **Perceived high risk associated** with SMEs in the clean cooking and PURE sectors, often characterized by thin margins, limited credit histories and informal operations that reduces banks' willingness to extend affordable credit[74]. An example of feedback from a KII respondent, *"....banks are hesitant to support solar and cookstoves enterprises due to perceived risks and lack of understanding of emerging technologies..."*

Banks are hesitant to support solar and cook-stoves enterprises due to perceived risks and lack of understanding of emerging technologies.

3. **LFIs face liquidity and asset-liability mismatches** that prevent them from offering the long tenors required for energy assets. Renewable-energy enterprises typically require 3–7-year financing, while LFIs rely on short-term deposits.

71 *African Development Bank Group. (2025, June 5). Africa's energy future: Blended finance, African capital mobilization and SEFA's growing impact take centre stage. https://www.afdb.org/en/news-and-events/africas-energy-future-blended-finance-african-capital-mobilization-and-sefas-growing-impact-take-centre-stage-84368#:~:text=However%2C%20she%20added%20that%20blended,deploy%20capital%20across%20multiple%20jurisdictions*

72 *Clean Cooking Alliance. (2025). Financial regulatory pathways for scaling carbon markets [Report]. https://www.cleancooking.org/wp-content/uploads/2025/07/Financial-Regulatory-Pathways-for-Scaling-Carbon-Markets.pdf*

73 *International Energy Agency & International Finance Corporation. (2023, June 21). Scaling up private finance for clean energy in emerging and developing economies [Report]. https://www.ifc.org/content/dam/ifc/doc/2023-delta/scaling-up-private-finance-for-clean-energy-in-edmes-en.pdf*

74 *African Development Bank Group. (2024, March 22). AfDB-CIF Annual Report 2023: Financing climate action in Africa [Report]. https://www.afdb.org/sites/default/files/documents/publications/afdb-cif_annual_report_2023_0.pdf*

4 **Weak policy signals,** inconsistent subsidies, and fragmented certification or quality-assurance systems amplify uncertainty[75].

5 **Absence of granular sector data,** including default rates, equipment durability, payback periods, and carbon revenue forecasts restricts the development of tailored financial products.

Additionally, limited access to de-risking instruments (e.g., guarantees, first-loss tranches), inadequate capacity to assess climate-aligned projects, and high transaction costs for small-ticket loans further constrain participation.

Therefore, strengthening data transparency, pipeline development, blended-finance structures and technical assistance remain essential to unlocking LFI engagement. ***Table 6*** below shows a summary of various types of market constraints and how they should be resolved.

Table 6 *Market constraints faced by LFIs in lending to the PURE and Clean Cooking Sector*

Category	Market constraints	Implications for LFIs	Recommended Interventions
Market & Sector Understanding	Many lenders are unfamiliar to the sector and feel it has high-risk due to LFIs limited technical understanding of clean cooking & PURE.	LFIs hesitate to lend or over-price risk, reducing financing to enterprises and consumers.	Provide training, develop simple technology appraisal tools, strengthen standards enforcement.
Enterprise-Level Challenges	SMEs lack strong financial records, collateral, or long operational track records.	It is difficult for LFIs to determine creditworthiness, leading to limited loan approvals.	Strengthen SMEs' financial systems, support investment readiness, use guarantees/blended finance to de-risk lending.
Consumer-Level Challenges	Last-mile consumers have irregular income, low affordability, and limited credit histories.	Higher likelihood of default; LFIs avoid consumer-focused lending.	Apply PAYGo data, use group/SACCO lending, apply subsidies or RBF to increase affordability.
Internal LFI Capacity Gaps	Limited in-house capacity to design green finance products.	Slow adoption of clean energy financing; institutions stick to traditional collateralized models.	Establish green finance desks, provide staff training, and co-design products with enterprises and TA partners.

(cont...)

[75] *Clean Cooking Alliance. (2022). 2022 Clean Cooking Industry Snapshot [Report]. https://www.cleancooking.org/wp-content/uploads/2022/05/CCA-2022-Clean-Cooking-Industry-Snapshot.pdf*

Category	Market constraints	Implications for LFIs	Recommended Interventions
Regulatory & Policy Issues	Unpredictable duty/VAT structures and uneven enforcement across counties.	Adds uncertainty to asset pricing and complicates nationwide product rollout.	Harmonise national–county policies, advocate stable fiscal incentives, strengthen market surveillance.
Data, Monitoring & Verification	Difficulty in monitoring distributed assets and limited market data.	Hard to price risk; monitoring becomes costly and operationally heavy.	Promote digital monitoring (IoT), develop data-sharing frameworks, strengthen sector-level data platforms.
Clean Cooking-Specific Risks	Small-ticket sizes, behavioural risk, and potential dissatisfaction with product performance.	Lending appears unprofitable and risky; fear of reputational damage if products fail.	Use aggregated lending, RBF incentives, improved product quality assurance, and customer education.
PURE-Specific Risks	High upfront investment costs, seasonal productivity risks, and maintenance gaps.	Large loan exposures: possibility of underperformance increases default risk.	Leasing/asset finance models, partner with EPC/service providers, bundle insurance, apply blended/first-loss capital.
Profitability Barriers	LFIs perceive PURE and clean cooking loans as low profit due to small ticket sizes and thin margins.	Products appear unattractive for commercial portfolios.	Use portfolio guarantees, RBF to increase margins, aggregated approaches to increase lending volumes.
Seasonality of Income	Farmers and rural businesses have seasonal incomes, creating inconsistent repayment ability.	Higher perceived default risk for agriculture-linked PURE customers.	Flexible repayment schedules, season-aligned lending, crop/livelihood insurance bundling.
Limited Access to Risk Mitigation Instruments	Most enterprises lack access to hedging, insurance, guarantees, or securitisation tools.	LFIs pass risk on to enterprises such as FX, operational, credit, and liquidity risk.	Expand guarantee schemes, promote blended finance, develop standardised RBF/TA facilities.
Local Currency & FX Risks	Imported equipment priced in USD but revenue in KES increases FX exposure.	Profitability becomes unpredictable; ability to service debt weakens.	Offer local-currency financing, hedging products and FX risk-sharing mechanisms.

(cont...)

Category	Market constraints	Implications for LFIs	Recommended Interventions
Insufficient Collateral	Many enterprises lack acceptable collateral, especially asset-light distributors.	LFIs decline loans due to inability to secure lending.	Use collateral substitutes such as guarantees, inventory finance, cashflow-based lending.
Growth Capital Challenges	Enterprises struggle to attract equity; RBF revenue cannot reliably support debt.	Firms stagnate at early-growth stage; banks see them as too risky.	Develop growth-stage blended facilities, co-investment vehicles, mezzanine options.
Limited Access to Carbon Markets	High set-up costs, low integrity credits, and price volatility limit participation.	Enterprises miss out on supplementary revenue; LFIs see less predictable cashflows.	Support carbon readiness programs, pooled MRV systems, concessional capital for set-up costs.

3.2 Opportunities for LFIs

Local financial institutions face a rapidly expanding set of opportunities to finance PURE and clean cooking solutions. These opportunities are driven by rising energy demand, maturing business models, new risk-sharing instruments and expanding climate-finance commitments. By leveraging these trends, LFIs can diversify portfolios, expand SME lending and capture emerging green-economy segments while contributing to national energy-transition goals.

Opportunities are driven by rising energy demand, maturing business models, new risk-sharing instruments and expanding climate-finance commitments

Growing demand for distributed energy and modern cooking solutions

The PURE sector – spanning solar irrigation, cold storage, milling, refrigeration, and e-mobility – is experiencing sustained growth in rural areas due to grid electrification gaps, climate impacts and the need for resilient food systems[76,77]. Clean cooking markets are also scaling rapidly as governments adopt national transition strategies and phase down biomass dependence. This creates new credit demand from SMEs manufacturing and distributing improved cookstoves (ICS), LPG, e-cooking, and bioethanol solutions. LFIs can expand their asset-financing portfolios by offering working capital, distributor finance and end-user credit for these growing segments.

76 *NEFCO & Tetra Tech. (2023, March). Scaling productive use of energy solutions in sub-Saharan Africa: Market scoping and design of a results-based financing window for the PUE sector. NEFCO. https://beyondthegrid.africa/wp-content/uploads/Nefco-PUE-Market-Assessment-March-2023.pdf*

77 *World Bank. (2023). Accelerating the productive use of electricity: Enabling productive use through access to electricity services and finance (Project No. P175152). https://documents1.worldbank.org/curated/en/099092023192023389/pdf/P1751521d3f58f6f1307c1499619e141b8baef6de8dd.pdf*

Availability of de-risking instruments from DFIs

DFIs including IFC, AfDB, FMO, AFD and the Green Climate Fund are expanding partial guarantees, first-loss tranches and blended capital facilities. These instruments significantly lower the risk exposure of commercial banks and MFIs, enabling them to extend longer tenors and reduce collateral demands for SMEs in PURE and clean cooking[78]. New securitisation models for PAYGo receivables and carbon-credit-backed financing also provide LFIs with innovative ways to lend safely into the sector.

Carbon markets as a revenue anchor

Carbon finance is emerging as a critical enabler for clean cooking enterprises. Appliances such as improved biomass stoves, ethanol systems, and electric cooking solutions generate measurable emission reductions that can be monetised over 5–7 years. This creates predictable revenue streams that lenders can underwrite. LFIs can structure receivable-backed loans, bridge financing and supply-chain lending around future carbon credit flows, unlocking cheaper capital for enterprises[79].

Strong government policy signals and national strategies

Countries such as Kenya, Ethiopia, Rwanda and Mozambique are implementing national clean-cooking strategies, VAT reforms and import-duty adjustments that lower market risk. National standards, certification systems and quality assurance programs further reduce technology risk and improve loan performance. LFIs can leverage these policy signals to develop energy-aligned credit products, particularly for SMEs operating in compliant technologies[80].

Digitalisation and PayGo platforms enabling data-driven lending

The emergence of PAYGo platforms and IoT-enabled asset tracking reduces repayment risk and generates real-time customer data. This allows LFIs to conduct more accurate credit scoring, monitor asset performance and partner with technology firms to deliver co-lending or embedded-finance models. Digital data streams help banks move away from collateral-heavy lending toward cash-flow-based finance.

Expanding climate finance and sustainability-linked funds

Climate finance flows to Africa – particularly in mitigation and adaptation – are increasing, with several funds specifically targeting decentralized renewable energy and clean cooking markets. This creates an opportunity for LFIs to position themselves as local delivery channels for green credit lines, concessional financing and results-based financing (RBF) programmes[5].

Strategic value in capturing an underserved market

The clean cooking and PURE sectors remain significantly underserved by commercial credit. LFIs that enter early can build brand leadership, diversify their loan books and tap into high-growth SME segments. Early participation also enables banks to align with sustainability reporting frameworks and emerging regulatory requirements on climate-related risk management.

78 *Convergence. (2024, October 30). The State of Blended Finance 2024: Climate Edition. World Bank Group/PPP Knowledge Lab. https://ppp.worldbank.org/sites/default/files/2025-06/State%20of%20Blended%20Finance%202024-%20Climate%20Edition.pdf*

79 *Overseas Development Institute. (Year). Title of the document. [Report]. International Development Research Centre. https://idl-bnc-idrc.dspacedirect.org/server/api/core/bitstreams/97c4ab8c-c647-43ad-bed7-906bf634108a/content*

80 *International Energy Agency. (2022, June 20). Africa Energy Outlook 2022: World Energy Outlook Special Report [PDF]. https://iea.blob.core.windows.net/assets/220b2862-33a6-47bd-81e9-00e586f4d384/AfricaEnergyOutlook2022.pdf*

Table 7 *Innovative Financing models unlocking Private Capital*

Financing Model	How It Works (Structure)	Role of Development Partners (DPs)	Role of LFIs (Banks/MFIs/ SACCOs)	Role of Private Sector (SMEs/SPVs/ Distributors)	What It Finances (Examples)	Advantages	Limitations
Blended Finance (Grants + Debt + Equity Mix)	DPs provide concessional capital or grant to reduce risk for commercial lenders and investors.	Provide grants, concessional debt, guarantees, TA.	Provide commercial loans to SMEs/SPVs.	Develop and implement actual projects (mini-grids, cooking, PURE).	Mini-grids, EPCs, C&I solar, SWPs, cookstoves, PAYGo.	Mobilises private capital at scale.	Complex structuring -requires strong governance.
Results-Based Financing (RBF) + Commercial Lending	DPs pay **incentives** after verified results; LFIs lend normally.	Fund RBF payments; verify results.	Provide working capital or loans to SMEs.	Install systems/ technologies and claim RBF.	Cookstove distribution, EPC sales, solar pumps, SHS, mini-grid connections.	Reduces demand risk; accelerates adoption.	SMEs need upfront capital.
Partial Credit Guarantee Schemes (PCGs)	DPs guarantee a portion (30–70%) of SME loans.	Provide guarantee funds to cover losses.	Lend to SMEs with reduced collateral requirements.	Borrow, implement green projects, repay.	Solar, biogas, biomass, EPCs, e-mobility, SME energy upgrades.	Makes SMEs creditworthy; lowers collateral.	Bank may still be conservative.
Risk-Sharing Facilities (RSFs) -senior & mezzanine debt	DPs and LFIs jointly fund/ participate in a loan portfolio.	Share risk, sometimes co-lend.	Co-lend and manage portfolio.	Borrow for green assets, expand supply chains.	PAYGo portfolios, mini-grid consumer loans, e-cooking.	Strong incentive alignment; good for scaling.	More complex than PCGs.

(cont...)

Financing Model	How It Works (Structure)	Role of Development Partners (DPs)	Role of LFIs (Banks/MFIs/ SACCOs)	Role of Private Sector (SMEs/SPVs/ Distributors)	What It Finances (Examples)	Advantages	Limitations
Green Credit Lines (Concessional On-Lending Through LFIs)	DPs lend to LFIs at low interest; LFIs on-lend to SMEs.	Provide long-term, low-cost lines and Technical Assistance.	On-lend to SMEs at competitive rates.	Borrow to finance green assets.	Solar, Energy Efficiency, cookstoves, storage, PURE.	Reduces interest rates; boosts LFI green lending.	LFIs must have strong capacity.
Venture Capital /Equity Co-Investment Platforms	DPs provide early-stage equity alongside private investors.	Provide anchor equity and first-loss.	Sometimes participate via SME funds.	Scale business, commercializa-tion, expansion.	Clean-cooking startups, PAYGo cooking, EPC assembling.	Supports high-risk innovations.	Equity dilution; long time frames.
Pay-As-You-Go (PAYGo) Financing via LFIs or SPVs	Customers pay in instalments; SPV/LFI finances asset.	Provide risk-sharing, RBF, TA.	Provide receivables finance or consumer loans.	Sell systems; manage PAYGo platform.	LPG cylinders, EPC cookers, SHS, electric cookers, solar pumps.	Reaches low-income segments; scalable.	High default risk without guarantees.
Asset-Based Financing (Leasing / Hire Purchase)	SPV or LFI owns the equipment; customer leases it.	Provide concessional debt and RBF.	Provide lease finance or credit line.	Deploy assets, manage leases.	Cold rooms, EPCs, industrial cookers, solar mills.	Lower cost to end user; good for high-ticket PURE assets.	Needs strong asset management.
Public–Private Partnership (PPP) Energy Models	Government + DP + private sector co-develop infrastructure.	Provide grants, viability gap funding, technical assistance.	Provide loan syndications for infrastructure.	Build-own-operate energy assets.	Mini-grids, institutional cooking hubs, biogas parks.	Enables large-scale investments.	Heavy regulatory requirements.
Concessional Senior Debt + Commercial Co-Finance	DPs provide soft loans blended with bank loans.	Provide concessional tranche.	Provide commercial tranche.	Implement projects using blended finance.	C&I solar, mini grids.	Improves bankability; reduces project WACC.	Needs multilateral coordination.

(cont...)

Financing Model	How It Works (Structure)	Role of Development Partners (DPs)	Role of LFIs (Banks/MFIs/ SACCOs)	Role of Private Sector (SMEs/SPVs/ Distributors)	What It Finances (Examples)	Advantages	Limitations
First-Loss Capital Facilities	DPs take first-loss risk; LFIs take senior position.	Provide first-loss layer.	Provide senior loans to SMEs.	Borrow at better terms; reduce collateral.	Clean-cooking distributors, EPC importers, agri-PURE SMEs.	Strongest de-risking tool; high leverage.	Requires robust governance.
Aggregated SME Financing Platforms	DPs provide guarantees/RBF; LFIs lend to SME clusters.	Offer RBF + TA + PCGs.	Provide portfolio loans.	SMEs bundled into sector portfolios.	Cookstove producers, EPC sellers, biomass supply chain.	Efficient for fragmented markets.	Requires strong SME selection.
Wholesale Lending via Apex Institutions	DPs fund a national facility that then funds LFIs.	Capitalise apex fund (e.g., national green fund).	Borrow from apex and on-lend to SMEs.	Apply for funding via LFIs.	Solar/electric cooking supply chains.	Efficient multi-lender model.	Requires strong apex governance.
Impact Bonds (Development Impact Bonds, Climate Bonds)	Investors fund projects upfront; DPs repay based on achieved results.	Outcome payer (pay only after impact).	May serve as intermediaries or issuers.	Deliver measurable energy/climate results.	Clean cooking programs; emissions reduction interventions.	High accountability; results driven.	Complex to design; high verification cost.

Technicians reviewing a manual during mini-grid operations

Image Courtesy: EmekeObanor/Sosai

4 Conclusions and Recommendations

4.1 Conclusion

PURE and clean cooking in Kenya have decisively **moved beyond purely donor pilots into a bankable**, climate-aligned asset class, with demonstrated demand, proven technologies, and emerging repayment track records.

The ecosystem has **matured into a blended-finance marketplace** where DFIs de-risk entry, LFIs intermediate capital, and enterprises deliver last-mile impact, creating a credible pathway for domestic capital mobilisation.

Matured into a blended-finance marketplace where DFIs de-risk entry, LFIs intermediate capital, and enterprises deliver last-mile impact.

Commercial banks, MFIs, and SACCOs now play distinct but complementary roles: banks anchor large-ticket and institutional assets; MFIs drive household and micro-enterprise inclusion; SACCOs accelerate uptake through trusted member-based lending.

Despite this progress, both sectors (PURE and Clean cooking) remain structurally **underfinanced**, largely due to **misclassification within broad climate-finance categories**, weak technology familiarity among lenders, tenor mismatches, data asymmetries, and high transaction costs in distributed markets.

Evidence from 2021–2025 confirms rising **deal sophistication**, growing enterprise investment, and steady expansion of LFI-mediated flows, signalling increasing confidence, stronger risk frameworks, and institutionalisation of green lending.

Blended instruments such as RBF, guarantees, first-loss capital, concessional debt, and securitisation have proven to be critical in converting perceived risk into deployable capital, enabling LFIs to participate at scale.

Kenya is now at a strategic inflection point: aligned national policies, escalating climate pressures, and growing demand for PURE position LFIs as central actors in resilience, productivity, and inclusive growth. Going forward, scale will depend on:

1. Expanded risk-sharing facilities and local-currency funding
2. Better sector tagging within green-finance systems
3. Stronger enterprise pipelines and performance data
4. Continued policy consistency and market-enabling reforms

In conclusion, PURE and clean cooking are no longer peripheral development themes. They represent a commercially viable, socially transformative and climate-critical investment frontier. With tailored finance, deeper risk-sharing and co-ordinated action across government, DFIs, LFIs and the private sector, Kenya can unlock large-scale domestic capital that will turn energy access into a durable engine for economic transformation.

Kenya can unlock large-scale domestic capital that will turn energy access into a durable engine for economic transformation.

4.2 Recommendations

Actors	Recommendations
National Government (Policy, Treasury, Energy, Climate, Regulators)	✔ Advocate for the review, update and operationalization of a clear Green Finance Taxonomy so banks and MFIs can consistently classify eligible assets. ✔ Advocate for the creation of a national sector finance-tracking platform aligned to taxonomy, publishing annual dashboards on loan performance, defaults and asset durability.
County Governments	✔ Facilitate last-mile distribution infrastructure and local awareness campaigns. ✔ Integrate clean cooking and PURE into county climate, agriculture, and SME programmes.
Kenyan Commercial Banks	✔ Advocate for the establishment or embedding dedicated green-finance desks staffed with teams trained in energy appraisal, cash-flow lending, and climate risk.
MFIs	✔ Scale embedded consumer finance for small appliances using PAYGo partnerships. ✔ Enhance partnership with appliance providers (clean cooking and PURE) for on lending to the end users.
SACCOs	✔ Enhance partnership with appliance providers (clean cooking and PURE) for on lending to the end users. ✔ Aggregate member demand into portfolio-level exposures attractive to wholesale lenders.
Clean Energy SMEs (Manufacturers, Distributors, Service Providers)	✔ Advocate for active product warranty to build the confidence of the end-users. ✔ Investment readiness support for the SMEs to be able to attract funding - financial management and business models. ✔ Facilitate LFI–SME matchmaking for deal origination
Development organizations	✔ To work in close partnership with Kenya Renewable Energy Association (KEREA) and Clean Cooking Association of Kenya (CCAK) to consolidate shared sector challenges, articulate evidence-based priorities, and strengthen collective advocacy to effectively represent industry interests.

Annex 1

Case Studies

Case Study 1: The Sun King Experience

When Sun King (formerly Greenlight Planet) entered East Africa more than a decade ago, it faced a challenge that many clean-energy companies know too well: strong demand for affordable solar home systems and productive-use appliances, but limited access to the long-term, scalable capital needed to meet it. The company was serving millions of low-income households with PAYGo solar, yet traditional financing tools were no longer sufficient to support its rapid expansion.

Rather than relying solely on foreign currency loans or short-term working capital lines, Sun King and Citibank introduced a financing breakthrough that is now reshaping renewable-energy investment in Kenya: **receivables securitisation**. *This model converts predictable PAYGo consumer repayments into bankable, investable assets—unlocking a new pool of domestic capital.*

The Structure

1. Sun King transfers its PAYGo receivables into a Special Purpose Vehicle (SPV).
2. The SPV issues two types of notes:
   - Senior Notes – purchased by Kenyan commercial banks (low-risk, predictable yield)
   - Mezzanine Notes – purchased by DFIs (higher-risk, concessional yield)
3. Mobile-money repayments from customers flow into the SPV, servicing the notes.
4. Sun King receives upfront liquidity, allowing it to distribute more solar systems, expand to offer PURE and cooking assets, and reinforce its last-mile network.

The entire structure was in Kenyan shillings, mitigating foreign-exchange exposure—an ongoing barrier for many renewable-energy operators. For local banks, this case study shows a maturing asset class with strong social impact and dependable repayment behaviour. This positions LFIs not just as lenders but as strategic partners in Kenya's green and productive-use energy transition.

Significance to Kenyan Local Financial Institutions

For the first time, Kenyan commercial banks could meaningfully participate in the off-grid energy value chain, earning stable, shilling-denominated returns while avoiding the operational risks typically associated with last-mile solar distribution. The securitisation SPV isolates the asset (customer receivables), structures credit enhancements, and provides transparent cashflows thus giving LFIs the clarity, data visibility, and risk-adjusted comfort they require.

This financing innovation signalled a major shift transitioning the clean energy sector from a donor-driven sector to a viable asset class for mainstream banking portfolios.

The Securitization Journey (2023–2025)

The First Breakthrough (2023): Sun King and Citi launched a US$130 million receivables securitisation, backed by FMO, Norfund, and British International Investment. It was the largest off-grid solar securitisation in Africa and a clear demonstration that PAYGo receivables could be structured into high-quality, investable notes.

In 2025, building on the success of the first tranche, the second transaction of US$156 million (KES 20.1 billion) brought in a strong syndicate of Kenyan banks: Absa, KCB, Co-operative Bank, and Stanbic, alongside Citi. DFIs again anchored the mezzanine tier, absorbing higher risk and giving commercial banks confidence to participate at scale.

Cumulative Impact: Together, these two transactions mobilised a total of US$286 million, and by 2025 Sun King's platform financing exceeded US$450 million across Africa. This deal is a clear demonstration that Kenyan capital markets can fund high-impact clean energy assets sustainably.

Case Study 2:
NedBank South Africa: Green housing and Solar Loan Programme

In 2022, Nedbank took a bold step that reshaped how banks participate in the green economy. Recognising the growing demand for reliable energy and the financial burden of rising electricity costs, the bank partnered with the International Finance Corporation (IFC), Proparco, and DEG to launch a US $200 million Green Housing and Solar Loan Programme.

This was a strategic commercial move. Nedbank saw that households and SMEs were actively seeking cost-saving, productivity-enhancing energy solutions, and that the bank was uniquely positioned to finance this shift. By embedding rooftop solar and energy-efficient technologies within mainstream retail and SME lending, the programme opened a new, profitable asset class for the bank.

Significance of the case study to Kenyan context

The Nedbank case proves that productive use of renewable energy (PURE) is not a fringe or high-risk segment. With the right structure, it becomes a strong, low-default, high-demand lending opportunity. The biggest insight is: When customers reduce their energy costs, they repay loans more reliably. This is exactly what rooftop solar, energy-efficient appliances, and SME retrofits delivered.

Kenyan banks, SACCOs, and MFIs are now facing the same opportunity Nedbank saw: the ability to create new green loan products that increase margins, diversify portfolios, and build long-term client loyalty while advancing national energy-access goals.

How the Programme Worked

Nedbank, backed by IFC, Proparco, and DEG, deployed capital through a blended structure that kept risk manageable and pricing competitive. Key features included:

- Green mortgages for EDGE-certified and energy-efficient homes
- Retail solar loans enabling households and SMEs to install rooftop PV.
- SME efficiency loans for productive-use equipment (solar fridges, cold rooms, mills, efficient motors, HVAC upgrades, etc.)
- Preferential pricing for verified installations.
- Performance-based incentives tied to actual energy savings and CO_2 reductions.

Every loan was anchored in measurable impact, either through IFC's EDGE certification or Nedbank's internal Green Finance Framework. This ensured transparency, credibility, and strong risk governance.

For LFIs in Kenya, this approach can be directly adapted into:

- Green mortgage top-ups for rooftop solar
- Bundled solar and appliance finance for households.
- PURE-focused SME loans targeting agro-processing, retail refrigeration, cold-chain logistics, and PAYGo-enabled appliances.
- Solar PAYGo dealer finance for distributors and installers
- Carbon-credit–integrated loan products for e-cooking and efficient appliances

The commercial case is strong: energy savings of 20–50 percent free up cashflow, improving repayment capacity and lowering default rates. By 2024, the Nedbank programme demonstrated that PURE-aligned lending is both profitable and sustainable as it had achieved the following:

15,000+
green homes financed.

Approximately 50,000 tCO_2 avoided annually, anchoring green compliance.

12,000
jobs created, stimulating local markets and supply chains.

Significant expansion of Nedbank's Green Asset Register.

Stronger climate risk governance and market differentiation.

Lessons for LFIs

The Nedbank experience shows that Kenyan banks can build commercially viable PURE portfolios through:

- **Retail solar and home-efficiency finance:** Consumers actively seek solar and efficient appliances because they lower monthly costs. This directly strengthens loan repayment behaviour.
- **SME productivity lending:** Access to solar refrigeration, efficient motors, cold storage, and solar irrigation increases SME revenues. Hence creating a pipeline of stronger, lower-risk borrowers.
- **Blended finance to reduce entry risk:** DFI mezzanine capital, partial guarantees, and concessional windows enable LFIs to launch green products with controlled exposure.
- **Performance-linked pricing:** Incentives tied to verified energy savings make green loans attractive while rewarding borrowers for responsible energy use.
- **Opportunity for market differentiation:** LFIs that move early position themselves as leaders in the national climate-finance transition—like how Nedbank solidified its brand through green mortgage innovation.

In conclusion, PURE financing represents a high-demand, high-impact, low-default lending segment. The Nedbank case confirms that when structured correctly, green housing, rooftop solar, and SME energy-efficiency loans are not merely CSR but are profitable commercial products. Kenyan banks, SACCOs, and MFIs can replicate or adapt this model, supported by DFIs, national green-finance guidelines, and rapidly growing consumer appetite. The opportunity is timely, scalable, and aligned with Kenya's energy-access ambitions.

Case Study 3:
Ecobank Group: Distributed Solar Facility

In 2024, IFC and Proparco partnered with Ecobank Group to launch the **US $200 million Distributed Solar Facility**. Knowing that thousands of SMEs across the continent were grappling with unreliable and costly electricity, the partners designed a facility that could deliver long-term, affordable capital directly through one of Africa's largest regional banking networks.

For Ecobank, this was a chance to position itself as a leader in the commercialisation of distributed solar solutions. For SMEs, it was a lifeline gaining access to the financing needed to adopt rooftop PV, hybrid mini-grids, solar refrigeration, and other productive-use technologies that directly increase their competitiveness.

Facility Structuring

The Distributed Solar Facility operates as a **regional financing platform**, enabling Ecobank subsidiaries in Kenya, Nigeria, Ghana, and Côte d'Ivoire to deploy targeted renewable-energy credit lines in their markets.

- **IFC** acted as lead arranger, providing debt financing, advisory support, and local-currency structuring.
- **Proparco** contributed co-lending capital and co-funded technical assistance under the AFD Group's Choose Africa initiative.
- **Ecobank** on-lent the funds across its regional network, with each country managing a sub-line of **US $30–60 million**.
- **Tenor:** Up to 8 years, with concessional and blended-rate tranches for SMEs.
- **Local-currency lending** protected borrowers from FX volatility—a major barrier to solar adoption.

Capacity Building and Risk Mitigation

A jointly funded Technical Assistance Facility strengthened Ecobank's ability to originate and manage renewable-energy loans through:

- green-lending training for branch credit teams
- enhanced E&S risk-management tools
- portfolio monitoring using IFC's (Climate Assessment and Financial Institutions (CAFI)[81] climate-assessment tool.

[81] *It is a web-based platform by IFC that allows the Fis to verify whether a project meets internationally agreed upon criteria for climate finance in line with IFC's definitions for climate related activities. The following are the core climate categories – renewable energy, energy efficiency, green building, transport, blue finance, water efficiency adaption and others.*

This combination of capital and TA gave Ecobank the confidence and capability to scale solar and PURE lending across multiple countries. The Ecobank model demonstrates that distributed solar and PURE technologies constitute a bankable and scalable lending segment, especially when paired with DFI support, blended finance, and technical assistance. This facility shows how local banks can seize the opportunity to finance PURE assets while diversifying portfolios and improving asset quality.

Outcomes and Impact

The Distributed Solar Facility is expected to deliver wide-reaching commercial and developmental results:

- 250 MW of distributed solar installed across four countries.
- Approximately 300,000 tonnes of CO_2 avoided per year.
- 1,000+ enterprises and installers financed.
- Approximately 10,000 green jobs created.
- Approximately 400 GWh of clean energy generated annually.
- Strengthened appetite among African banks for distributed-solar and PURE lending.

Lessons for LFIs

1. **Regional DFI–bank partnerships drive scale:** Cross-border collaboration accelerates standardized green-lending practices and harmonized frameworks.
2. **Local-currency lending is essential:** Protecting SMEs from FX risk increases adoption, improves loan performance, and expands market reach.
3. **Technical assistance de-risks entry:** Capacity building, E&S tools, and credit training allow banks to confidently finance solar and PURE assets.
4. **PURE technologies strengthen borrower cashflows:** Solar irrigation, cold storage, and energy-efficient machinery reduce costs and increase productivity—boosting repayment reliability.
5. **A scalable blueprint for Kenya:** This model is easily replicable for:
   - solar irrigation portfolios
   - clean cooking and e-cooking credit lines
   - agri-energy finance frameworks
   - PAYGo productive-use appliance lending

In conclusion, the IFC–Proparco–Ecobank Distributed Solar Facility demonstrates that PURE financing is commercially viable, scalable, and de-risked when properly structured. By combining local-currency lending, concessional tranches, and technical assistance, Ecobank is building a long-term, sustainable clean-energy portfolio that strengthens its competitive position.

Case Study 4:
BURN Manufacturing

BURN operates one of Africa's largest clean-cooking manufacturing plant. It manufactures a wide array of technologies ranging from efficient biomass stoves, induction and Electric pressure cookers. Distribution span retail, institutions and SME channels, supported by PAYGo/flexible payments via mobile money.

BURN demonstrates that clean cooking can scale as a commercial, manufacturing-led energy business. By designing, producing and distributing appliances locally, BURN proved three things early: households want cleaner cooking, repayments are viable and climate impact can be monetised. The real bottleneck was not demand, it was access to patient capital and risk-sharing to grow at speed.

Why BURN Invested in Local Manufacturing

BURN responded to clear market signals:

- Traditional fuels are costly, inefficient, and harmful - creating strong incentives to switch.
- Upfront appliance cost is the main adoption barrier.
- Kenya's market size and policy momentum could sustain industrial production.

A display of an induction cooker for household use
Image Courtesy: Burn

Instead of grant-funded distribution, BURN built factory capacity and positioned cookstoves as energy products and consumer durables.

How the Model Works (manufacturer-anchored blended finance)

Scale was unlocked by combining commercial debt, development capital and performance-linked revenues. Examples of funding Burn manufacturing has been able to unlock are as follow:

- *In 2024, USD15m debt funding from European Investment Bank to grow manufacturing and regional distribution.*
- *In 2023, Burn raised USD 10 m from green bond*
- *In 2025, USD 5m from ElectriFI (equity/grant) to support early scale and innovation.*
- *In 2025, USD 80M debt + RBF from Trade and Development Bank (TDB) group*
- *In 2023, USD 25, a carbon facility debt from Key* Carbon Ltd

Lessons for Kenyan Banks, SACCOs, and MFIs

1. Manufacturers can anchor clean-cooking finance efficiently.
2. Clean cooking behaves like an energy-efficiency investment.
3. Blended finance accelerates scale without long-term dependence.
4. PAYGo data cuts information asymmetry.
5. Institutional cooking is bankable and repeatable.

In conclusion, BURN Manufacturing proves that clean cooking is not a niche development project, it is a scalable, financeable energy market when local manufacturing, consumer finance and blended capital are aligned. For Kenyan LFIs, partnerships with manufacturers like BURN offer a practical, low-risk entry point into green lending, unlocking new portfolios while delivering real outcomes in energy efficiency, job creation, and climate impact.

An end-user with an ethanol cookstove at home

Image Courtesy: Koko

Annex 2

Implications of Aggregating Clean Cooking and PURE with other Technologies

Report	Relevant Sections Addressing Aggregation Impacts	What the Section States Regarding Aggregation / Lack of Granularity	Implication for PURE and Clean Cooking Finance
IEA (2023). A Vision for Clean Cooking Access for All	Chapter 2: Investment Requirements for Universal Access; Chapter 3: Barriers & Enablers	States that clean cooking investment is "invisible" within aggregated energy-access and climate categories, causing underestimation of actual capital needs.	Clean cooking receives insufficient and misaligned finance because aggregated "green" labels hide the subsector's scale and financing profile (working capital, subsidies, and carbon-linked flows).
World Bank & ESMAP (2020). State of Access to Modern Energy Cooking Services	Chapter 5: Market Barriers; Chapter 6: Financing the Transition	Explains that bundled financing in the energy sector masks subsector-specific cashflow patterns and risks; argues for differentiated financing to avoid market failure.	Clean cooking finance is constrained by product misclassification and generic credit lines that ignore stove, fuel, and carbon-revenue characteristics.
Clean Cooking Alliance (2021). Industry Snapshot	Financing Trends; Investor Perception Analysis	Shows investor confusion caused by clean cooking being grouped under "general climate mitigation," leading to limited appetite and mispricing of risk.	Broad aggregation leads DFIs/LFIs to view cooking as a low-return consumer sector rather than a climate-impact sector with verified emissions reductions.
ESMAP (2022). Productive Uses of Electricity	Chapter 4: Barriers to Scaling PUE; Chapter 5: Policy/Regulatory Issues	Highlights that PUE is often **blended into "off-grid solar"** categories, masking asset-specific financing needs such as leasing, O&M, and productive-use demand risk.	PURE enterprises cannot access appropriate financing instruments and are treated as generic solar SMEs despite requiring asset-based finance.

(cont...)

Report	Relevant Sections Addressing Aggregation Impacts	What the Section States Regarding Aggregation / Lack of Granularity	Implication for PURE and Clean Cooking Finance
Efficiency for Access (2021). State of the Off-Grid Appliance Market	Finance Landscape; Appliance Market Outlook	Notes that aggregated off-grid financing overlooks appliance-specific capital requirements and technical risks, especially for productive-use equipment.	PURE financing gaps persist because lenders cannot see subsector-specific performance data, cashflow patterns, or load-utilization risks.
Climate Policy Initiative (2023). Global Landscape of Climate Finance	Methodology; Sectoral Allocation	Explicitly acknowledges that high-level climate finance categories mask the flow of capital to less-visible technologies such as clean cooking and small-scale productive-use assets.	Clean cooking and PURE do not appear in climate-finance tracking, reducing visibility and limiting DFIs' ability to justify targeted facilities.
OECD (2020). Improving the Effectiveness of Climate Finance	Chapter 2: Challenges in Tracking; Chapter 3: Sectoral Alignment	States that coarse climate-finance classification systems hinder alignment between finance providers and sectoral needs due to inadequate tagging.	Clean cooking and PURE fall into "other mitigation" or "energy access," preventing the creation of subsector-specific instruments and policies.
UNFCCC SCF (2021). Needs Determination Report	Technology Needs; Cross-Sector Barriers	Notes that aggregated needs assessments obscure the specific financing requirements of differentiated mitigation technologies.	Clean cooking's fuel and technology pathways and PURE's agricultural linkages are not captured, weakening NDC-target financing.
SEforALL (2020). Energizing Finance: Understanding the Landscape	Chapter 4: Investment Trends; Gap Analysis	Shows that aggregated energy-access investments disproportionately favour electrification while underfunding clean cooking and productive-use sectors.	Basic aggregation hides the depth of the financing gap for cooking and PURE, reducing catalytic capital flows.
World Bank (2023). Tracking SDG 7: Energy Progress Report	Financing Tracking Methodology; Sector-Specific Insights	States that SDG 7 finance flows are tracked broadly (electricity vs clean cooking), which fails to differentiate within clean cooking or PURE technologies.	Clean cooking sub-technologies (LPG, electric cooking, ethanol) and PURE applications (irrigation, milling) are not visible in national SDG financing estimates.

Annex 3

List of Stakeholders Engaged

S/No.	Categories	Categories	Organisations	
1.	Financial Institutions	Banks	• Kenya Commercial Bank • Equity Bank • NCBA • Stanbic bank • Co-operative Bank	• National Bank • Sidian Bank • Family Bank • ABSA Bank • Kingdom Bank
2.		Microfinance Institutions	• Fortune Credit • CARITAS • KWFT • Kingdom Bank	• U & I • FAULU • SUMAC • Juhudi Kilimo
3.		Cooperatives and Saccos	• Apstar DT Sacco • KUSCCO • Tower SACCO	• Kuza Sacco • Stima DT SACCO • Tai Sacco
4.	Private sector		• Sunculture • Sunking • BURN Manufacturing • Biogas international	• Verst carbon • Mkopa • Baridi • Sunken
5.	Development partners and DFIs		• GIZ • SNV • Practical Action • WRI • Access coalition • FSD	• Kenya Climate Innovation Centre (KCIC) • WWF - Kenya • Climate Works Foundation • UNDP
6.	Impact investors		• Acumen • CrossBoundary Energy	• OIKO Credit • AECF
7.	Member Associations		• GOGLA • KEREA	• UBPA • CCAK

Annex 4

Impacts Investors in Clean Cooking in Kenya

A. Equity/quasi-equity and larger debt investor

Investor/ Facility	Instrument and Role	Example	Notes
Acumen	Patient equity / quasi-equity, TA	Invested in **BURN Manufacturing**, its first cookstove investment, to scale efficient stoves in Kenya.	Classic early-stage impact investor in clean cooking; strong learning agenda and case-study material you can cite. Good reference for "concessional" or patient equity.
US DFC (formerly OPIC)	Debt / mezzanine, often in hard currency	Part of the early investor group in BURN's factory alongside Acumen and GE, providing capital expenditure and growth finance.	Positions clean cooking as climate and development; important when you frame DFI appetite for Kenya's cooking transition.
General Electric (GE)	Corporate impact-aligned equity	Co-investor in BURN's Kenya manufacturing facility.	Example of strategic corporate capital entering clean cooking, useful when arguing for "industrial players" in local manufacturing.
Africa Go Green Fund (AGG–managed by Cygnum Capital)	Impact debt facility for efficiency / clean energy	Invested USD 10m to fund BURN's efficient cookstove manufacturing and distribution (multi-country, but capital into the Kenyan company).	Climate-focused debt fund; good example of using a regional climate vehicle to support a Kenyan manufacturer.
Trade and Development Bank Group (TDB)	Regional DFI debt	Structured a large programme with BURN to deliver clean cooking solutions in Southern Africa from its Nairobi base.	Demonstrates that regional DFIs see clean cooking as bankable, especially when underpinned by carbon revenues.

B. Grant/catalytic capital and awards

Investor/ Facility	Instrument and Role	Kenyan Example/ Evidence	Notes
EEP Africa (formerly EEP Trust Fund)	Early-stage grants, convertible grants, TA	Long-standing support to Kenyan clean-energy SMEs; its 2021 report highlights support to women-led enterprises such as Mukuru Clean Stoves and other cookstove companies.	Very relevant as "de-risking capital" for pilots and early scale-up in clean cooking. Good position as upstream to DFIs and commercial lenders.
Global Alliance for Clean Cookstoves/ Clean Cooking Alliance (CCA)	Grants, RBF, challenge funds	Supported BURN's factory establishment and other cookstove ventures; CCA is also listed in last-mile distributor funding tools as a provider of grants for improved cooking.	Important to show a global, specialised clean cooking funder with a track record in Kenya (projects, carbon, RBF).
Ashden Awards	Non-dilutive prize funding + profile and TA	BURN is an Ashden Award winner; Ashden has supported over 270 clean-energy organisations globally, with BURN showcased as a Kenyan success story.	Use to illustrate the role of "recognition + small grants + visibility" in crowding in later investors.
KOSAP Clean Cooking RBF (GoK + development partners)	Results-based finance for distributors	US$5m RBF facility targeted at underserved counties to incentivise clean cooking dissemination (LPG and ICS).	Not an "investor" in the narrow sense but critical demand-side incentive that lowers risk for impact investors backing distributors.

C. Crowdfunding and alternative debt

Investor/ Facility	Instrument and Role	Kenyan Example/ Evidence	Notes
Bettervest	Crowdfunded senior debt	Provided loans to BURN for raw-material capex and working capital for stove production in Kenya.	Example of retail investors participating in clean cooking through structured crowd-debt.
Kiva	Crowdfunded micro- and meso-loans	Identified as one of the most active crowdfunding platforms in clean cooking, providing working-capital to early-stage companies.	Useful to showcase "inclusive" finance tools reaching informal/smaller distributors.
Local Kenyan green-bond investors (arranged by Dry Associates)	Local-currency green bond	BURN issued a USD 10m green bond through Kenyan capital markets to fund clean cookstove expansion; Dry Associates acted as transaction advisor, targeting local fixed-income investors.	Good proof that domestic institutional investors can be mobilised around a labelled clean-cooking bond when the asset base is mature.

D. Specialised debt funds for off-grid/PUE

Investor/ Facility	Role in Kenya	Notes
Mirova SunFunder (ex-SunFunder)	Structured debt to off-grid solar and PUE companies; part of consortia financing d.light and other East African firms with PUE appliances.	Archetypal impact debt fund blending donor, DFI and private capital to finance inventory and receivables.
responsAbility Investments	Impact debt / equity to energy-access companies, including off-grid solar and PUE in Africa.	Often co-invests with SunFunder, SIMA, Oikocredit, etc.; important to cite as a "specialised energy access lender".
SIMA Funds	Debt to SHS, mini-grid and PUE companies	Listed among the specialised debt providers raising international impact capital for off-grid solar and related firms.
Oikocredit	Impact debt cooperative	Provides loans to off-grid solar and productive-use companies; frequently part of syndicates in East Africa.
AlphaMundi Group (SocialAlpha & Alphajiri)	Blended finance, debt and refundable grants	Solar irrigation, cold storage, agri-value chain energy, PAYGo appliances
Triodos Investment Management	Debt + Mezzanine	Often co-lend with responAbility & AlphaMundi; Ticket size range US$2–15M

E. PURE-focused equity and blended-finance funds

Investor/ Facility	Instrument and Focus	Notes
KawiSafi Ventures Fund (GCF-anchored)	Private equity impact fund for off-grid solar / clean energy in East Africa, with explicit focus on Kenya and Rwanda.	Invests USD 2–10m in 10–15 companies (e.g., d.light, M-KOPA). Strong example of blended capital (GCF) crowding in commercial investors.
Energy Access Ventures (EAV) / E3 Capital	VC / growth equity for off-grid energy and PUE	Based in Nairobi and Paris, with investments into SunCulture and other off-grid solar providers in East Africa.
InfraCo Africa (PIDG)	Development equity and project prep	Led a strategic equity investment round of c. US$12m in **SunCulture** (solar irrigation and PUE) together with Savant Group.
Gaia Impact Fund	VC impact fund specialising in decentralised renewables and PUE; presence in Nairobi.	Positions itself explicitly around productive uses (solar pumping, cooling, e-mobility), relevant for Kenyan PUE ventures.

(cont...)

Investor/ Facility	Instrument and Focus	Notes
Acumen – PEII & PEII+	Early-stage equity in PUE firms (mills, irrigation, cold-chain, e-mobility).	Pan-African mandate including East Africa; strong narrative on "powering livelihoods" which you can quote in PURE strategy sections.
EDFI ElectriFI	Catalytic capital, subordinated debt, equity	Strong de-risking tool, mobilises LFI co-lending; mini-grids, solar irrigation, energy access enterprise, DRE infrastructure
Shell Foundation	Catalytic grants +blended finance	Support early stage to scale up phases
DOEN Foundation	Grants + soft/subordinated debt	Support pilots, R&D and prototypes

F. Dedicated PURE/appliance financing facilities

Investor/ Facility	Instrument and Target	Example
Nithio FI – Productive Use Appliance Financing Facility (PUAFF)	Debt and blended finance to scale PUE appliances	Nithio FI invested in SunCulture to promote solar irrigation and agricultural innovation, explicitly under PUAFF to catalyse uptake of productive-use appliances in Africa.
PREO (formerly part-funded by IKEA Foundation & UK Aid)	Grants / TA and impact-linked funding for PUE SMEs	PREO's PUE opportunity and M&E reports highlight support to African PUE enterprises (irrigation, agro-processing, cold-chain) including in Kenya.
CEI Africa	Grants and results-based finance for mini-grids and PUE	Recent IEA/UNDP material notes CEI Africa's grant of nearly USD 4.5m to a mini-grid developer to expand operations in Africa, including Kenya, with emphasis on PUE loads.

G. Philanthropic and blended capital for mini-grids and PUE

Investor/ Platform	Role	Examples
Shell Foundation, DOEN Foundation, Good Energies, Schmidt Family Foundation, REPP, All On, etc.	Philanthropic / blended capital to mini-grid and PUE developers	Benchmarking Africa's Minigrids report lists these as key impact investors and philanthropic actors de-risking mini-grid investment across Africa, including Kenya.
Global off-grid / solar funds with PUE components (e.g. funds backed by EIB, FMO, CDC/BII)	Equity and debt into SHS and mini-grids with productive-use appliances	EIB's story on SunCulture, and FMO/ CDC-backed off-grid funds (including Energy Access Ventures) demonstrate that mainstream European DFIs are financing PUE in East Africa.

Annex 5

Characterisations of Financial Institutions in PURE and Clean Cooking

Institution Type	Core Mandate & Market Positioning	Target Segments	Green Energy Products Financed	Financing Instruments & Structures	Geographic Footprint & Distribution Capacity	Strategic Significance for Clean Cooking & PURE
Commercial Banks (e.g., KCB, Equity Bank, Co-operative Bank, NCBA, Absa, Stanbic, SCB)	Regulated under Banking Act; large balance sheets, risk-managed portfolios; align with CBK Climate Risk Guidance (2021) and Kenya Green Taxonomy (2025); focus on corporate, SME, and structured finance.	Corporates, SMEs, institutions (schools, clinics, agro processors), upper/ middle-income retail.	C&I solar, solar irrigation (SME), cold storage, milling, LPG/biogas for institutions, e-mobility, energy-efficiency upgrades; some retail clean-cooking microloans.	Term loans, asset finance, leasing (e.g., NCBA solar leasing), sustainability-linked loans (SLLs), green credit lines (e.g., SUNREF), portfolio guarantees (e.g., AGF).	Nationwide urban-heavy networks; institutional capacity for E&S screening, taxonomy alignment, climate reporting.	Enable large-ticket, long-tenor financing for PURE (solar irrigation, cold chain, agro-processing); anchor corporate transition finance (SLLs); crowd in DFIs via guarantees/credit lines; essential for scaling institutional clean cooking (schools, clinics).

(cont...)

Institution Type	Core Mandate & Market Positioning	Target Segments	Green Energy Products Financed	Financing Instruments & Structures	Geographic Footprint & Distribution Capacity	Strategic Significance for Clean Cooking & PURE
Microfinance Institutions (MFIs) *(e.g., KWFT, Juhudi Kilimo, Musoni, ECLOF, VisionFund)*	Financial inclusion for low-income households and microenterprises; cash-flow lending, group-based methodologies; high-touch rural presence.	Low-income households, microenterprises, smallholder farmers, nano-entrepreneurs.	LPG kits, efficient biomass stoves, solar home systems (SHS), solar water pumps, solar irrigation, small-scale refrigeration; working capital for last-mile distributors.	Group loans, individual microloans, pay-as-you-save models, digital credit rails, salary check-off; harvest-aligned repayment.	Deep rural outreach; dense branch & agent networks; embedded in community finance culture.	Bridge last-mile affordability for clean cooking; fund PURE assets for smallholders (solar irrigation, SHS for micro-retailers); reduce acquisition risk for distributors; enable rapid scaling of household energy transitions.
SACCOs *(e.g., KUSCCO-affiliated SACCOs, Stima DT SACCO, Teachers SACCOs)*	Member-based cooperative credit; anchored in savings mobilization, payroll deduction, and community governance; focus on household welfare and micro-enterprise support.	Salaried workers (teachers, energy workers, civil servants), traders, farmers, micro-enterprises within membership.	Clean cookstoves, LPG starter kits, e-cooking appliances, SHS, solar lanterns, small productive assets (e.g., micro-chillers, solar fridges).	Member loans, payroll check-off, revolving funds (e.g., Jiko Safi via KUSCCO), bulk procurement + on-lending models.	Widely distributed, especially in rural counties; strong trust-based collection mechanisms.	Ideal for mass end-user adoption at scale; reduce default risk via check-off; lower per-unit distribution costs through bulk purchasing; effective channel for clean cooking and small PURE asset uptake among rural and peri-urban members.

PowerUp

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