



MODERN COOKING
FACILITY FOR AFRICA

ANNUAL RESULTS REPORT 2024





Photo:
MCFA investee
customer in Zambia
- Jason Mulikita
for MCFA / Nefco

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Facility Manager:



Funded by:



MCFA in brief

The Modern Cooking Facility for Africa (MCFA) is a multi-donor programme established and managed by Nefco – the Nordic Green Bank. The MCFA supports the development of new markets for the clean cooking sector and aims to accelerate access to modern and affordable cooking solutions in Sub-Saharan Africa.

The programme helps companies selling higher-tier stoves in the clean cooking market to grow and scale up their businesses in the Democratic Republic

of the Congo (DRC), Kenya, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe (the project countries).

MCFA combines results-based financing with catalytic grant financing. The aim of MCFA funding is to function as a bridge between seed funding and carbon finance or commercial loans/equity.

The current EUR 61.5 million MCFA programme was announced in November 2021 and is funded by Sweden, Norway and the European Union.

Key achievements of MCFA 2023-2024



13
portfolio
companies



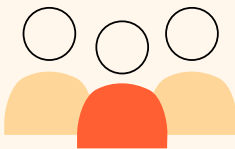
3,026
Clean Cooking
Services sold by
the end of 2024



17,966
people
with access to
clean cooking

Figure 1. Key achievements in 2023-2024

MCFA’s expected impact



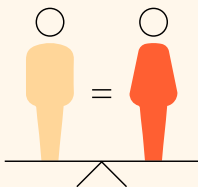
The aim is to provide up to 4 million Africans with **access to clean cooking** solutions by the end of 2029.



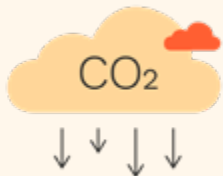
Increased access to clean cooking will **improve health and well-being**, especially for women and girls, by reducing exposure to harmful pollutants.



MCFA contributes to the following Sustainable Development Goals (SDGs): **3, 5, 7, 13 & 15.**



Use of clean cooking solutions will increase the **time available for women and girls** for other activities and minimise the drudgery of fuel procurement and cooking, ...



...**reduce greenhouse** gas emissions



... and help **avoid deforestation** and **loss of biodiversity**.

Figure 2. MCFA expected impact



Photo: Visit to MCFA investee customer in Zambia - Jason Mulikita for MCFA / Nefco



Heli Sinkko
Fund Manager
of the Modern Cooking
Facility for Africa

Greetings from Nefco - The Facility Manager for MCFA

The Modern Cooking Facility for Africa (MCFA) saw solid progress in 2024, as the programme continued to make headway towards catalysing access to clean cooking solutions in its countries of operation in Sub-Saharan Africa. The collective mission to address the need for clean cooking has reached new heights, with notable achievements reflecting the dedication of MCFA portfolio companies, donors and host governments.

By the end of 2024, MCFA has contracted with thirteen investee companies. These agreements amount to an impressive EUR 22.3 million. Over EUR 5.7 million in disbursements had been made to these companies by the end of 2024, primarily as catalytic grants. These investments have also allowed investees to deliver the first clean cooking solutions in Kenya, Zambia and Zimbabwe – creating meaningful change in communities and advancing MCFA’s mission to provide access to modern cooking solutions.

Beyond financial milestones, 2024 was also pivotal in strengthening the foundation of MCFA operations. MCFA has successfully developed robust monitoring, reporting, and verification (MRV) protocols to ensure the accountability and effectiveness of MCFA programme interventions. Moreover, MCFA undertook the procurement of the Independent Verification Agent (IVA), a critical step in enhancing transparency and impact validation in readiness for the delivery of clean cooking solutions from 2025 and beyond.



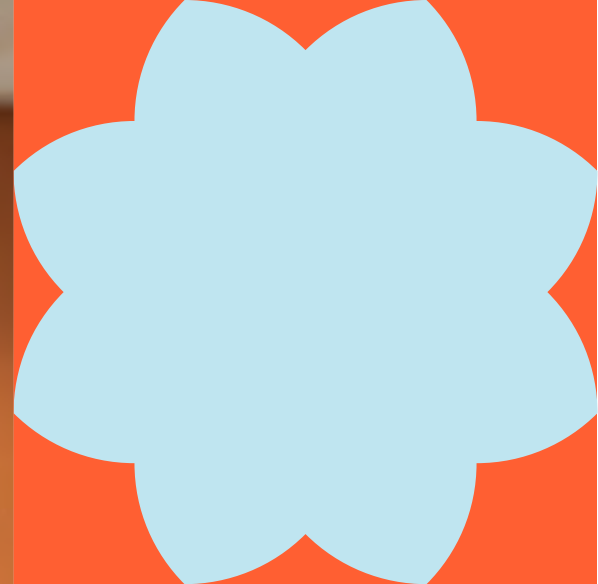
Ash Sharma
Vice President,
Special Funds, Nefco
(Until March 2025)

In May 2024, MCFA was represented at a high-level Summit on Clean Cooking in Africa in Paris, where new Principles for Responsible Carbon Finance for Clean Cooking were announced alongside the Clean Cooking Declaration to support the urgent scale-up of clean cooking initiatives in Africa and globally.

Additionally, MCFA launched a portfolio-wide technical assistance programme to provide tailored support to its investees, ensuring their continued growth and the sustainability of their solutions. This initiative reflects our commitment to fostering long-term partnerships and maximising the impact of every euro invested.

These accomplishments underscore the collective effort and shared vision that drive MCFA. Nefco, as Facility Manager of MCFA, extend our gratitude to our donors Sweden, Norway and the European Union, whose support fuels our mission, and to our portfolio companies, whose innovation and hard work are delivering key impacts on the ground. As we look ahead, we remain committed in our pursuit of financially sustainable, clean cooking solutions that are accessible to all.

“As we look ahead, we remain committed in our pursuit of financially sustainable, clean cooking solutions that are accessible to all.”



“To receive MCFA funding, investees must provide affordable, high-quality clean cooking services directly to consumers, ensuring long-term sustainability.”

Photo: Jussi Ratilainen for Nefco

Heli Sinkko, Fund Manager of MCFA

2. APPROACH AND PORTFOLIO

MCFA approach and portfolio

FUNDING APPROACH

MCFA offers results-based financing (RBF) focused on incentivising companies in high-risk markets: companies receive payments once they deliver products or services to clients. The RBF is combined with non-reimbursable catalytic grant financing and technical assistance (TA). The aim of MCFA funding is to function as a bridge between seed funding and carbon finance or commercial loans/equity.

To receive MCFA funding, investees must provide affordable, high-quality clean cooking services (CCS) directly to consumers, ensuring long-term sustainability. The CCS can be provided with a variety of modern, higher-tier cookstoves powered by electricity, biogas, LPG, solid or liquid biofuels or solar energy. In addition, to ensure usage and adoption, investees are also required to sell and make relevant fuel available to their customers, either directly or through a partnership. Stoves intended to be used with charcoal or wood fuel are not eligible for MCFA funding.

Business models incorporating pay-as-you-go (PAYGO) or other consumer finance approaches to increase consumer affordability, stove-use monitoring to support access to high-integrity carbon credits or integrated ‘tool and fuel’ models are strongly favoured by MCFA. MCFA support also extends to energy-efficient commercial and institutional cooking services, addressing needs in areas like education and health.

SELECTION APPROACH

MCFA awards contracts to companies selected through competitive calls for proposals. Business plans are assessed on the technical and commercial feasibility of the proposed clean cooking services, including with regard to fuel supply, financial leverage, management capacity and impact potential. These criteria, combined with the applicant’s financial offer, weighted according to MCFA’s priorities, determine the proposal’s value for money using a reverse auction mechanism, an approach adapted from the **Beyond the Grid Fund for Africa** (BGFA) Programme. Companies are contracted according to the value for money offered until all available funds are allocated.

Two calls for proposals have been conducted since the programme’s launch, both following a two-stage process consisting of Nefco’s own eligibility checks and independent evaluations to ensure integrity of the process.

The first call (MCFA1) received pre-qualification applications from 44 eligible applicants for a total requested amount of over EUR 76 million, reflecting an oversubscription for the available funding of EUR 30.8 million.

Not all available funds were allocated in the first call and, following an external review, a second call for proposals (MCFA2), offering EUR 16.6 million in funding, was opened in November 2023 with more relaxed criteria on market experience and financial leverage.

The second round featured two funding windows: the Catalytic Funding Window, to support early-stage companies in emerging markets, and the Scale-up Funding Window, similar to MCFA1 and open to applicants from all project countries.

Thanks to Nefco's robust outreach and collaboration with local clean cooking and renewable energy associations, the second call received an overwhelming response, with close to 100 eligible applicants in the pre-qualification stage.

Both calls attracted applications from all project countries. In MCFA1, the highest

number of applications came from Kenya. In MCFA2, the largest number of applications came from Zambia, the largest country programme within MCFA, followed by Malawi, a newly introduced project country for the second call.

The MCFA programme has seen varying levels of different clean cooking technologies offered. Sustainable solid biofuels have seen the highest number of applications across both calls, followed by electric stoves and biogas solutions. Notably, LPG, which was not an eligible technology in MCFA1, attracted 24 proposals in MCFA2.

“The second call received an overwhelming response, with close to 100 eligible applicants in the pre-qualifications stage.”



Photo: Celebration of first cohort of funded projects in Zambia in January 2024 - Jason Mulikita for MCFA / Nefco

Application statistics from MCFA funding rounds

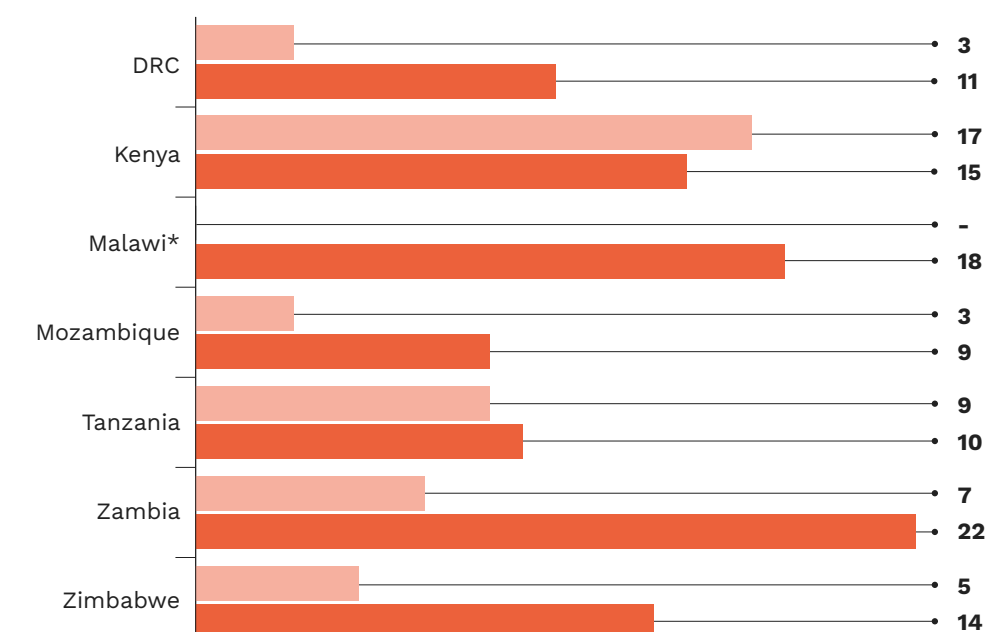


Figure 3. Eligible MCFA1 and MCFA2 pre-qualification applications per country**

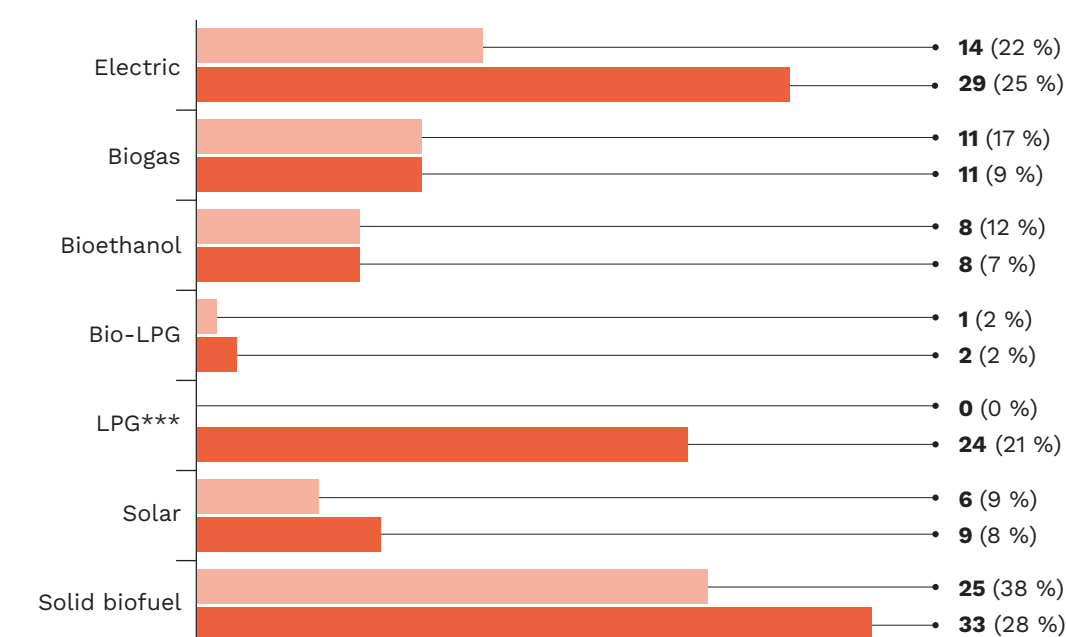


Figure 4. Eligible MCFA1 and MCFA2 pre-qualification applications per technology

* Added as a project country in MCFA2

**It should be noted that some applications include offers for multiple technologies, hence the total is higher than the number of applications.

*** Added as an eligible technology in MCFA2, except in Kenya and Zimbabwe.

“At the end of 2024, MCFA had a portfolio of 13 contracted companies.”



Photo: MCFA investee EcoSafi contributes to the transformation of the electric cooking landscape in Kenya - EcoSafi

Current company portfolio

At the end of 2024, MCFA had a portfolio of 13 contracted companies and a qualified pipeline of 12 companies shortlisted from the second call.

Most of the contracted portfolio companies are based in Kenya or Zambia. Electric cooking solutions are most strongly represented in the MCFA company portfolio, followed by sustainable solid biofuels and biogas solutions, most commonly biodigesters.



Figure 5. Project countries and investee company portfolio

Company portfolio overview

Financed companies	Project info	Project description
Lanforce Energy	Zimbabwe Technology Biogas Number of contracted clean cooking services 6,131	Lanforce Energy is one of the leading biogas companies in Zimbabwe, offering biodigesters for households, farmers, entrepreneurs and institutions.
BURN Manufacturing Kenya/Mozambique/DRC/Tanzania/Zambia Partners BURN Manufacturing USA	Kenya/Mozambique/DRC/Tanzania/Zambia Technology Electric Number of contracted clean cooking services 130,000/66,666/50,000/130,000/80,000	Under separate agreements with BURN subsidiaries in the respective countries, MCFA will provide up to EUR 10 million of results-based financing until 2027 to expand access in the Democratic Republic of the Congo, Kenya, Mozambique, Tanzania and Zambia. With the support of MCFA, BURN is planning to establish up to 456,000 clean cooking services and increase its direct operational presence across the five targeted markets.
Emerging Cooking Solutions	Zambia Technology Solid biofuels (pellets) Number of contracted clean cooking services 28,666	Emerging Cooking Solutions will offer micro-gasification stoves together with its own SupaMoto pellets, made from timber mill off-cuts from managed forestry plantations, under a subscription-based utility model to over 28,000 customers. Over the course of the anticipated four-year implementation period, the company's expansion is expected to reach up to 2.28 million beneficiaries.
ENGIE Energy Access Zambia Partners Good Farmland Management Kenya (Sistema.bio)	Zambia Technology Biogas Number of contracted clean cooking services 2,392	ENGIE Energy Access Zambia has been operating in Zambia since 2017, with a focus on delivering off-grid solar home systems. With the EUR 1.2 million in results-based financing provided by MCFA, the company will leverage its extensive reach and an adaptable product range offered by Sistema.bio to bring biodigesters to 2,400 households in Zambia.
Sayari Safi (UpEnergy Tanzania)	Tanzania Technology Electric Number of contracted clean cooking services 123,250	With the results-based financing provided from MCFA, UpEnergy Tanzania aims to scale up its distribution of electric cooking services across Tanzania in Dar es Salaam, Dodoma, Morogoro, Mwanza and Pwani. It aims to deploy over 123,000 PowerUp electric pressure cookers, which are expected to benefit over 600,000 Tanzanians.
ENGIE Energy Access Mozambique Partners Good Farmland Management Kenya (Sistema.bio)	Mozambique Technology Biogas Number of contracted clean cooking services 2,000	ENGIE Energy Access Mozambique will provide its customers with innovative biodigesters that enable farmers to convert agricultural waste into biogas and fertiliser through a PAYGO business model.

Financed companies	Project info	Project description
HomeBiogas	Kenya Technology Biogas Number of contracted clean cooking services 34,000	HomeBiogas in Kenya will provide small-scale farmers in Kenya with its modular small-scale biogas systems. With the results-based financing provided by MCFA, the company aims to install 34,000 biogas systems to boost the company's expansion in Western and Central Kenya. This will provide up to 170,000 farmers in Kenya with clean cooking solutions.
Better Cooking Company (Eco-Safi)	Kenya Technology Solid biofuels (pellets) Number of contracted clean cooking services 25,000	Better Cooking Company, trading as EcoSafi, will provide Kenyans with efficient cook stoves of their own design and a regular supply of pellet fuel made from agricultural waste. With the results-based financing provided by MCFA, the company aims to establish 25,000 sustainable clean cooking services in Kenya. This will provide up to 125,000 people in Kenya with access to clean cooking solutions.
African eCosync Energy	Kenya Technology Solid biofuels (pellets) Number of contracted clean cooking services 13,000	ACE Hybrid Energy Kenya will sell its ACE One gasifier stoves, designed in-house, to customers on Kenya's Eastern coast. With the results-based financing provided by MCFA, the company aims to sell 13,000 stoves, which will provide up to 65,000 people in Kenya with access to clean cooking solutions.

Table 1. MCFA portfolio overview



Photo: Ash Sharma speaking at the celebration event in Zambia in January 2024 - Jason Mulikita for MCFA / Nefco



The first company funded under MCFA

MCFA signed its first agreement with Lanforce Energy in August 2023, a local women-led company established in 2010. Today, Lanforce Energy is one of the leading biogas companies in Zimbabwe, offering biodigesters for households, farmers, entrepreneurs and institutions.

The biodigesters offered by Lanforce Energy, which include stoves and burners, are easy to operate, portable and available in different sizes depending on customers' needs. All parts of the biodigesters are replaceable and their expected lifespan is approximately 20 years, depending on care and maintenance. The biodigesters are equipped with Stove Use Monitoring (SUM) meters to provide data on biogas consumption. Customers can pay for biodigesters in instalments over an agreed period of time using the pay-as-you-go (PAYGO) system, making the products more affordable and accessible.

With the approx. EUR 1 million in results-based financing provided from MCFA, the company aims to scale up its business activities by selling some 2,400 biodigesters. This would represent over 6,000 clean cooking services, as some of the biodigesters can cater for multiple stoves, for example if several households share one biodigester. Once all new activities are implemented, the

biodigesters are expected to benefit up to 30,000 Zimbabweans in rural and peri-urban areas of the country. Lanforce Energy currently operates in 26 districts and with the financing from MCFA it plans to extend its operational activities to an additional 24 districts.

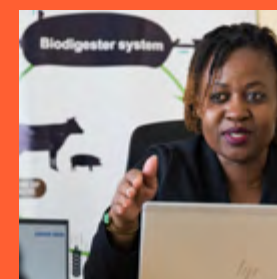
Financial support from MCFA has so far enabled Lanforce to expand its distribution capabilities, extend the payment terms available to its customers and ensure that reliable and efficient biogas cooking solutions are both accessible and affordable to those who need them most, i.e. women and low-income households. Since signing the contract, Lanforce has been able to establish 401 clean cooking service (CCS) contracts across the country. Lanforce expects demand for biogas cooking solutions to grow and is preparing to scale up its activities to meet this demand.

Info

Biodigesters contribute to reducing greenhouse gas emissions and organic waste from cultivation and cooking, turning organic waste into clean energy in the form of biogas that can be used for cooking as well as other productive-use appliances, such as lighting, heating and refrigeration. The biogas produced from biodigesters mainly replaces the use of firewood, which decreases pollution, improves indoor air quality and reduces deforestation.



Photo: Biodigesters at a farm customer of MCFA investee Lanforce Energy in Zimbabwe – Jason Mulikita for MCFA / Nefco



“Our most significant achievement is our successful expansion into previously untapped markets. We have provided cookstoves to low-income households, making a meaningful impact in these communities. Additionally, we have extended our payment period for customers to 24 months, making the products more affordable, particularly for women,” comments **Judith Marera**, CEO and founder at Lanforce Energy

“The biodigester allows us to manage the farm’s waste efficiently and sustainably, producing biogas and our own liquid organic fertiliser while providing heating for our chickens. Our employees can cook their meals using the biogas cookstove that comes with the biodigester without needing to fetch firewood,” comments **Wendy Zvakavapono**, Co-owner of Zvenashe Farm & biogas user in rural Zimbabwe



“MCFA is proud to support Lanforce, a small company with big environmental and social ambitions, on its journey to bring clean and affordable cooking solutions to thousands of Zimbabweans,” says **Aliona Fomenko**, Investment Manager at Nefco

Photos: Jason Mulikita for MCFA / Nefco

Problem statement and Theory of Change

Lack of access to clean cooking solutions is a global challenge, and clean cooking is one of the key sectors contributing to the acceleration of the green energy transition in Africa. Globally, about 2.1 billion people lack access to clean cooking, of which almost 1 billion live in Sub-Saharan Africa. In most project countries, the current access rate to clean cooking is less than 20%.

MCFA specifically focuses on **higher-tier clean cookstoves**, for which the market remains particularly challenging due to a lack of financing, limited consumer awareness, weak infrastructure hindering distribution networks and the need for reliable energy access.

MCFA aims to increase the availability and affordability of these cooking solutions through the financial incentive, helping companies to leverage other financing including carbon finance and specifically supporting PAYGO/consumer finance models. MCFA also supports integrated tool and fuel delivery models, ensuring sustainable fuel is readily available and more affordable than for example charcoal.

The key outcome of the programme is increased usage of clean cooking solutions and fuels. This transition improves health and well-being – particularly for women and girls – by reducing exposure to harmful pollutants.

Additionally, it decreases greenhouse gas emissions, mitigates deforestation and biodiversity loss and increases the time available for women and girls by reducing the burden of fuel collection and cooking. At the same time, new jobs are created and gender equality is furthered within the clean cooking companies and their business operations.

The programme also generates valuable knowledge and data on sectoral challenges and opportunities from the perspective of private companies while mobilising additional funding for the clean cooking market. These efforts contribute to the broader adoption of sustainable cooking solutions among residential, commercial and institutional users.

Through these mechanisms, MCFA drives systemic change, fostering a more advanced, sustainable, inclusive and resilient clean cooking sector in Sub-Saharan Africa.

Info

Carbon finance is a key component of MCFA, enabling investees to strengthen project economics and expand access to clean cooking solutions. The MCFA-supported modern energy cooking appliances often incorporate automatic usage monitoring, which aids investees in developing projects based on actual measurement and metering of cooking time. Carbon credits generated from these projects, particularly those offering co-benefits like improved community well-being, are expected to be in high demand and command premium prices. This will further incentivise the scale-up of clean cooking solutions.

Summarised theory of change framework for MCFA

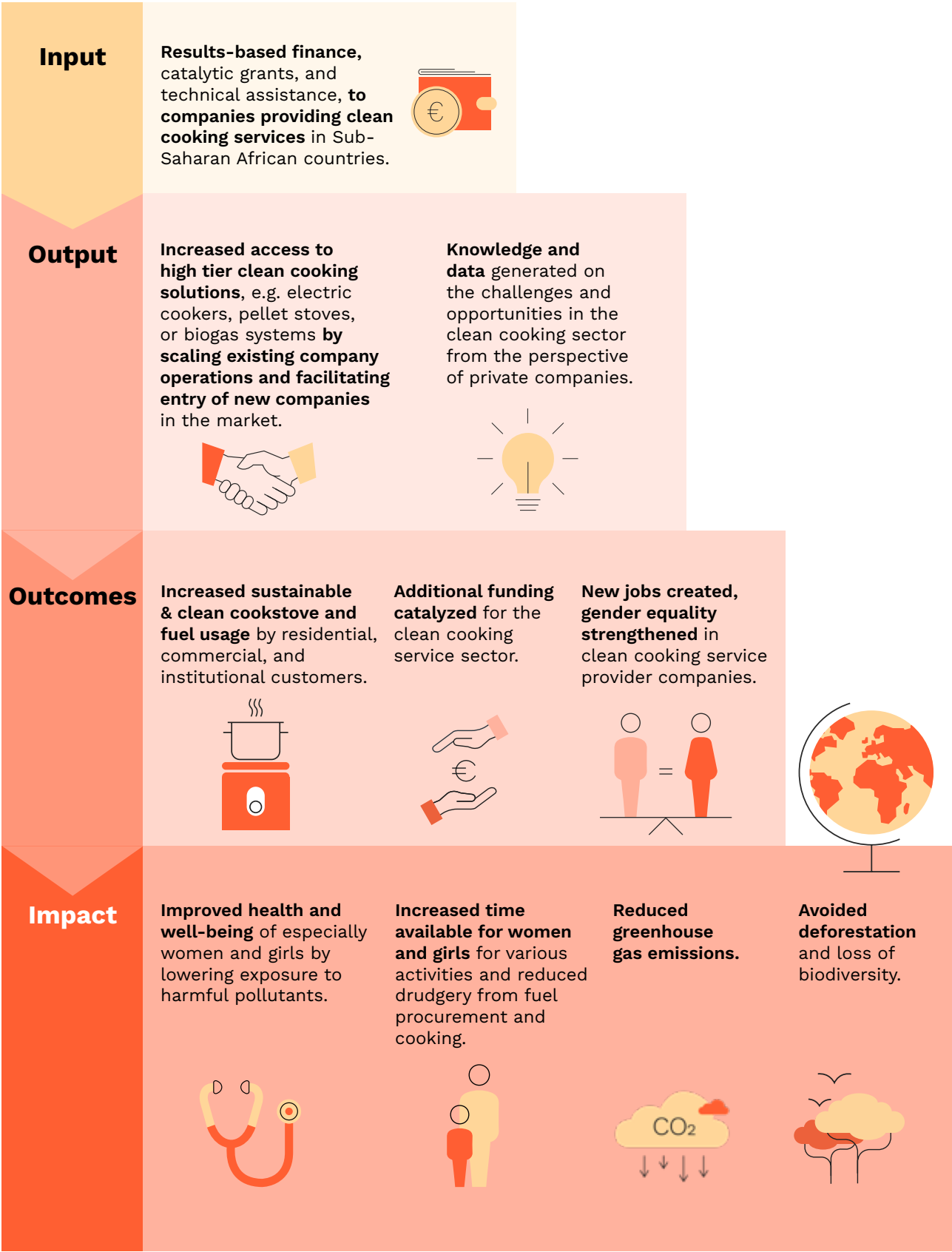


Figure 6. Theory of change framework for MCFA

MCFA’s Monitoring, Reporting & Verification process

The MCFA **Monitoring, Reporting & Verification (MRV) Framework** outlines the principles and processes for monitoring project progress, releasing results-based finance to clean cooking companies and verifying the accuracy of payment requests. At its core are **project progress reports**, submitted by companies in connection to **payment requests** after selling clean cooking services. These reports include a unique identifier and customer payment details (such as date and amount) for each client, enabling the tracking of ongoing payments. These payments by clients serve as a proxy indicator of sustainability, confirming that final service users are using the stoves as intended. Progress reports also include information on potential co-financing leveraged by the company.

In addition to progress reports to support payment requests, each company is subject to an **annual review** to assess overall project implementation and the delivery of other contracted results, including those related to gender equality. The review evaluates the company’s progress against expected results and the need for adjustments, as well as the potential impact of these changes on contracted funding. Companies also report on **gender** indicators and potential **jobs created** as a result of MCFA support on an annual basis. Figure 7 illustrates the main elements of MCFA monitoring; the requirements are set by donors, and the data is collected and verified through progress reports and annual reviews.

“The payments by clients serve as a proxy indicator of sustainability, confirming that final service users are using the stoves as intended.”

Petra Mikkolainen, Senior Monitoring, Evaluation & Learning Manager



Photo: Jussi Ratilainen for Nefco

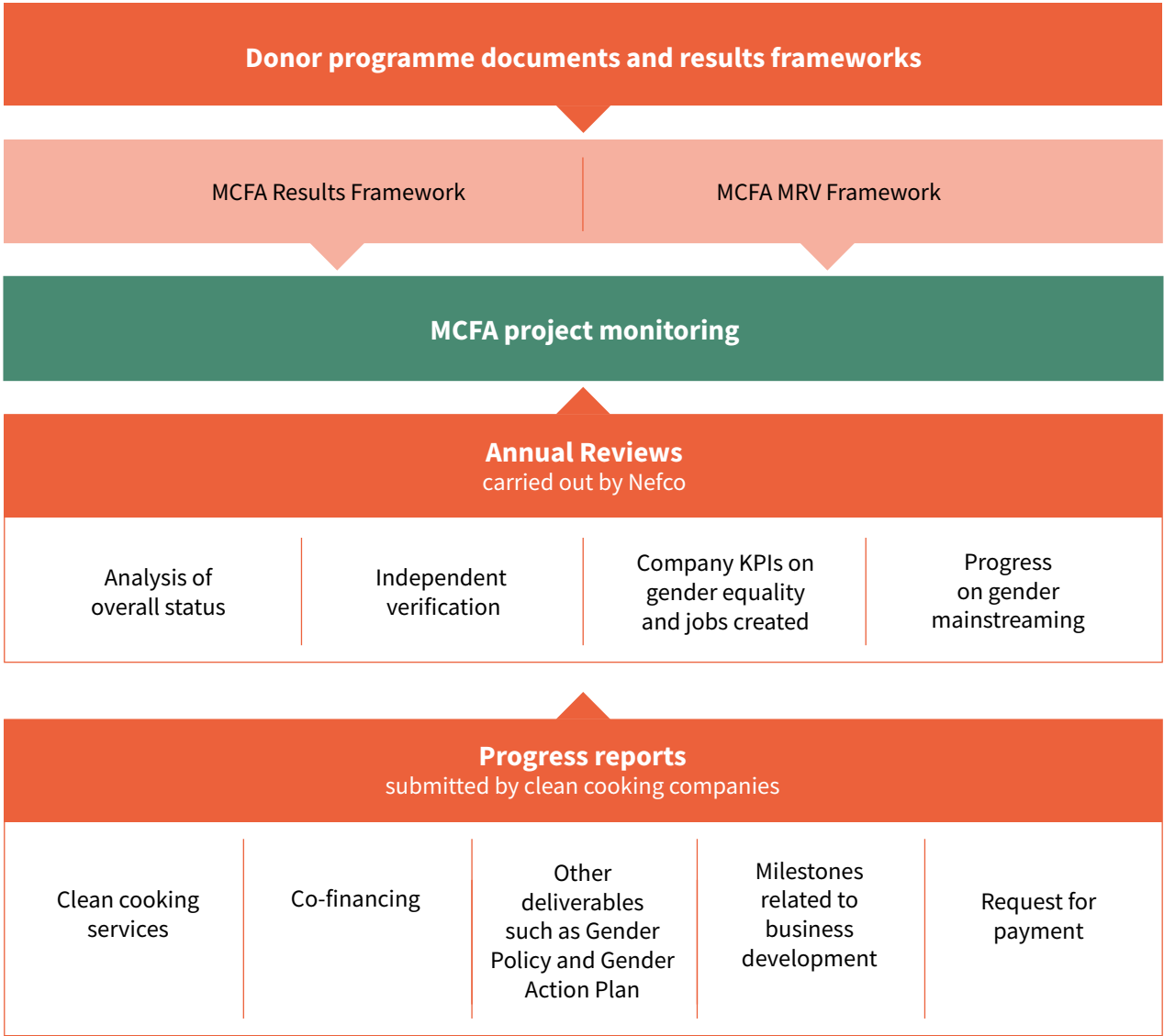


Figure 7. Hierarchy of MCFA results and impacts reporting

An **independent verification agent** (IVA) is engaged to verify the delivery of clean cooking services through telephone surveys and, when necessary, site visits. Additionally, all companies are gradually being integrated to Prospect, a software platform that allows sales data required for results reporting to be pulled directly from companies' customer relationship management systems. The IVA, composed of NIRAS and 60 Decibels, also investigates the **availability of fuel** for clients, when relevant, as this is a critical requirement of the MCFA.

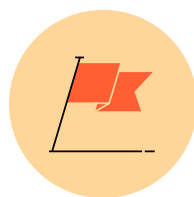
Based on delivered clean cooking services, Nefco estimates other **social and environmental benefits** such as averted mortality and Disability-Adjusted Life Years (DALYs), avoided CO₂e emissions, avoided deforestation, time savings and reduced drudgery among women and girls. These impacts are assessed using indirect indicators, which are derived from mathematical calculations (currently under development).

Additionally, Nefco commissions **mid-term** and **final evaluations** (and other evaluative studies as needed) on behalf of donors in line with obligations of accountability and transparency related to implementation, as well as to guide and steer the programme's progress.

Overall, impact considerations and compliance with Nefco's policy requirements are closely intertwined and integrated throughout the project cycle – from determining guidelines for calls for proposals, evaluating proposals, conducting due diligence and contracting to the monitoring, verification and evaluation of results – ensuring the delivery of sustainable social and environmental impacts.

A programme implementation and monitoring software, SmartME, facilitates the process, from conducting calls for proposals to processing progress reports and annual reviews all the way to visualising achieved results at the portfolio level.

The MCFA monitoring, verification and reporting process



Expected results, also called **targets**, defined in the contracts between clean cooking service providers and Nefco.



Results that have undergone **first-layer validation** through payment request approval.



Results that have undergone the final layer of **independent verification** through annual reviews.

“Impact considerations and compliance with Nefco's policy requirements are closely intertwined and integrated throughout the project cycle.”



Photo: Pellet cookstove -
Jason Mulikita for
MCFA / Nefco



Scaling up clean cooking services with carbon financing

Emerging Cooking Solutions (ECS) is selling micro-gasification stoves together with its own SupaMoto pellets, made from timber mill off-cuts from managed forestry plantations, under a subscription-based utility model. The pellets are purchasable via mobile money and delivered to customers free of charge using mainly electric vehicles.

With the MCFA funding, approx. EUR 2 million, the company is scaling up its operations in Zambia by expanding operations from Lusaka and Ndola to Solwezi, Mufulira, Chingola, Chililabombwe, Kitwe, Luanshya, Kapiri Mposhi and Kabwe. The overall aim is for ECS to provide clean cooking services to 28,600 customers, mainly for low-income households currently using charcoal, by the end of 2027.

A key feature of ECS's business model is the leveraging of carbon finance. ECS is pioneering innovative approaches in the clean cooking sector through its groundbreaking work with carbon financing under the Paris Agreement. Having received a letter of No Objection from the Government of Zambia, it is

currently developing one of the world's first clean cooking projects under Article 6.2 that will establish a framework for collaboration between countries based on the Gold Standard 'Metered and Measured' methodology, aiming to generate high-quality Internationally Transferred Mitigation Outcomes (ITMOs) in Zambia. ECS's high-quality credits are expected to command premium prices in the evolving carbon markets.

A key innovation in ECS's approach is the development of a cutting-edge digital Measurement, Reporting and Verification (MRV) platform. This system utilises fuel sales records and Internet of Things (IoT) sensors in cookstoves to track actual usage, providing highly accurate and granular data. The MRV system is being developed in partnership with IXO World AG, a company that provides advanced digital operating systems for coordinating, financing, verifying and governing social, environmental and climate impacts, and it will leverage blockchain technology to ensure data integrity and transparency.

With the support of MCFA, ECS is well-positioned for growth, exemplifying the transformative potential of results-based financing to advance clean cooking solutions on the Zambian market.



Photo: SupaMoto pellets at a customer of Emerging Cooking Solutions in Zambia - Jason Mulikita for MCFA / Nefco

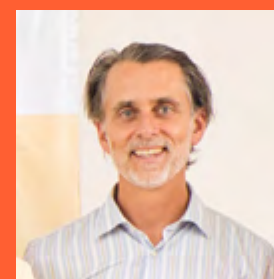


Photo: Jason Mulikita for MCFA / Nefco

"Over a decade ago, we recognised the potential of waste biomass pellets and micro-gasification stoves in the energy transition. We've demonstrated a perfect product-market fit, providing cost savings to users while delivering clean, efficient cooking solutions. With our proprietary IoT platform and high-performing stoves, alongside the support from MCFA and upcoming carbon credit programme in partnership with the Zambian government, we're positioned for rapid growth," says
Mattias Ohlson, CEO of Emerging Cooking Solutions Group



Photo: Jussi Ratilainen for Nefco

"Emerging Cooking Solutions is an experienced and innovative provider of higher-tier cooking solutions in Zambia, which will be able to expand its business operations in the country with MCFA financing," comments
Heli Sinkko, Programme Manager / Fund Manager of MCFA at Nefco.

Initial programme results

The initial results from 2024 represent the first steps in accelerating access to clean cooking solutions by our portfolio companies. The first full year of implementation under the investee agreements was focused on disbursing catalytic grants and incentivising initial clean cooking services, which are expected to increase in 2025.



Photo: MCFA investee customer in Zimbabwe - Jason Mulikita for MCFA / Nefco

MCFA results by the end of 2024

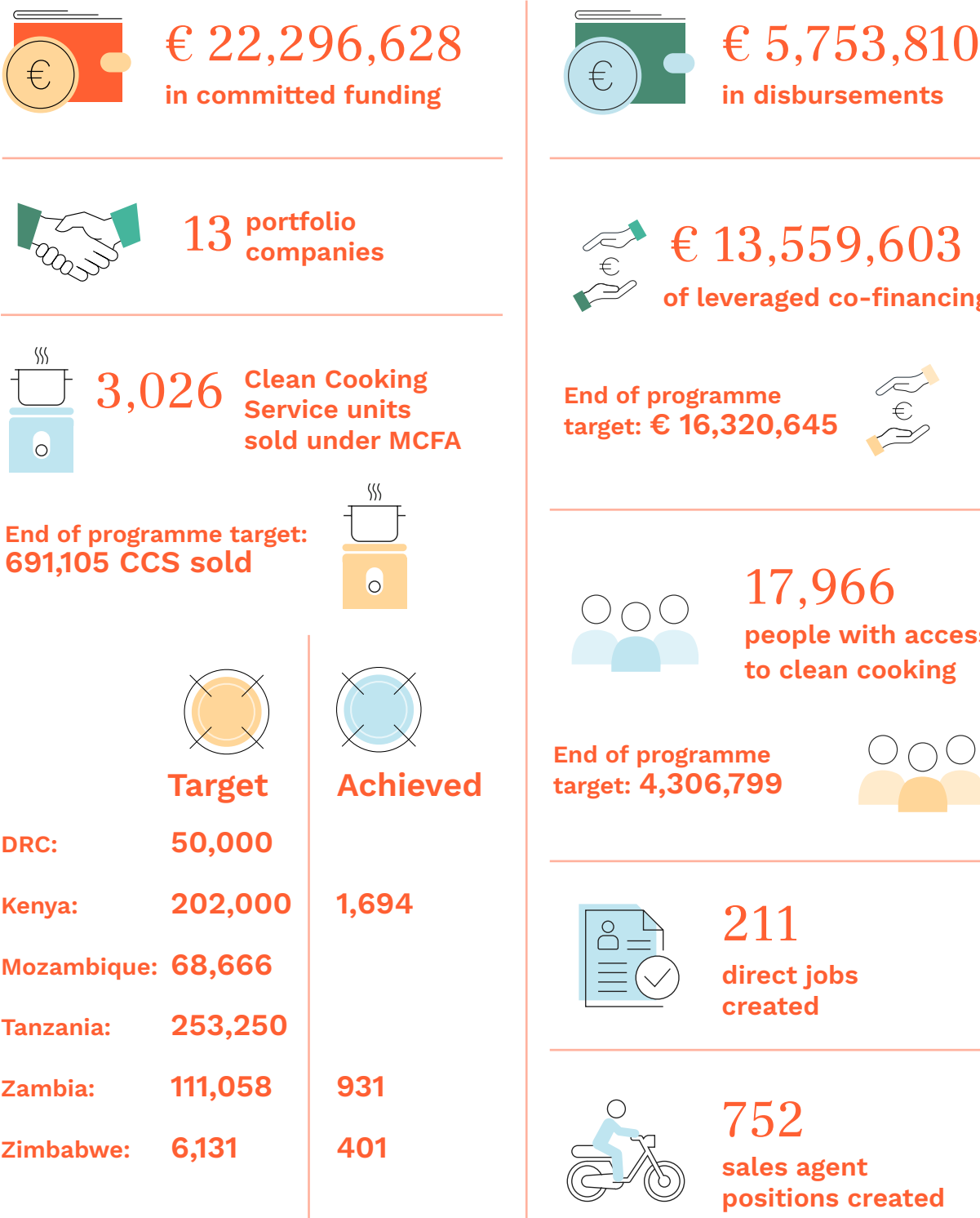


Figure 8. Summary of MCFA's Key Performance Indicators (KPIs), cumulative since the beginning of the programme. Targets as by the current contracted portfolio.

Findings from the MCFA programme survey

At the end of 2024, Nefco conducted a survey among investee companies to gather preliminary insights into the use of catalytic grants, challenges encountered, the impact of programme support and the future outlook for MCFA companies.

USE OF CATALYTIC GRANTS

In total, 12 of the 13 companies have already received catalytic grants, and 11 have utilised them. The catalytic grants have played a pivotal role in the early stages of clean cooking services (CCS) delivery. The primary reported uses include:

- **Working capital support:** Many companies allocated funds to cover working capital expenses, such as purchasing inventory.
- **Market expansion:** Several companies reported using catalytic grants to broaden their market reach, particularly into underserved areas of the project countries.
- **Increased hiring:** Many companies hired additional staff, including field technicians, to enhance service delivery and scale operations.

“The grant enabled us to increase our local staff by bringing in extra field technicians. This has been critical in scaling installations and ensuring a strong focus on after-sales service, enhancing customer satisfaction and retention.”



Photo: MCFA investee customer in Zimbabwe – Jason Mulikita for MCFA / Nefco

CHALLENGES IN SCALING OPERATIONS

The companies reported a range of challenges in scaling their CCS delivery:

- **Financial constraints:** Raising equity is a common barrier.
- **Consumer awareness:** The need for extensive awareness campaigns to educate potential customers is a widespread challenge.
- **Logistical and geographical barriers:** Multiple companies face difficulties expanding to remote areas due to poor infrastructure and increased costs.
- **Market adaptability:** Rapidly changing market conditions, including climatic and societal events, and the capacity of customers to make repayments pose additional challenges.

“Many of our target customers face financial limitations, making it difficult for them to afford our systems upfront. While we’ve introduced pay-as-you-go models, the availability of credit and partnerships with local financial institutions remains a bottleneck.”

IMPACT OF MCFA PROGRAMME SUPPORT

Beyond financial grants, the MCFA programme has provided value to its investees through:

- **Enhanced credibility and market access:** It was frequently highlighted that the MCFA programme has enhanced companies’ credibility, opening new opportunities for partnerships and financing.
- **Technical Assistance and capacity building:** Technical Assistance in refining strategies and ensuring compliance is highly valued by several companies.
- **Strategic and operational guidance:** Companies have benefitted from support in aligning operations with sustainability goals and improving scaling efficiency.

“Joining the MCFA programme has boosted our credibility, opening doors to new partnerships and financing.”

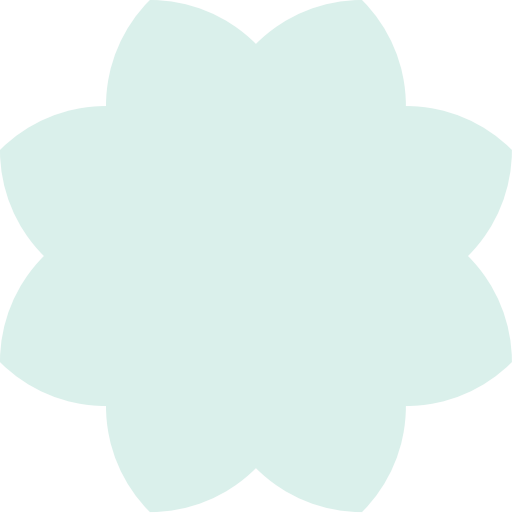


Photo: Biogas stove -
Sistema.bio

MESSAGES FOR THE FACILITY
MANAGER, DONORS AND THE
CLEAN COOKING SECTOR

Companies shared key messages based on their experiences:

- **Continued support:** Ongoing support from MCFA and programme donors as convening authorities is crucial for sector growth and navigating carbon markets.
- **Affordability and consumer financing:** Greater emphasis on affordable solutions and financing options for vulnerable families is needed.
- **Sustainability and education:** Sustaining efforts in customer education and promoting sustainable practices is vital.

“We have learnt a lot of lessons, one of them being not to underestimate the power of being consistent in the delivery of the product. Even if the product provided is cleaner, cheaper and better for the environment, customers will revert back to charcoal if the product is inconsistent or not easily available.”

FUTURE OUTLOOK
AND SUPPORT NEEDS

Looking ahead, companies anticipate opportunities and challenges:

- **Opportunities:** Market expansion, innovation and carbon financing are viewed as key growth drivers.
- **Challenges:** Operational scaling, supplier price fluctuations and customer behaviour changes are expected to be persistent challenges.
- **Support needs:**
 - Strategic partnerships and support for entering new markets
 - Training and knowledge-sharing to maintain high standards
 - Flexibility regarding delivery of results.

“Especially for our market segment, flexibility and adaptability will be critical – the market has already changed so much in the last 24 months, imagine the changes that are yet to come.”

Conclusion

The findings from the MCFA programme survey highlight the transformative role of catalytic grants in advancing clean cooking services. Companies have leveraged these grants to build capacity, expand operations and enhance service delivery, despite ongoing challenges such as financial constraints, limited consumer awareness and logistical barriers.

The survey also underscores the broader impact of MCFA’s support in strengthening credibility, fostering partnerships and providing strategic guidance. As the clean cooking sector evolves, the need for adaptive, targeted support focused on market expansion, innovation and consumer engagement will be crucial. MCFA’s ability to respond to these needs will play a determining role in enabling companies to scale their impact and deliver sustainable solutions.

Navigating challenges and seizing opportunities

MCFA does not favour any specific technology when choosing companies to support. Instead, it focuses on finding the most cost-effective solutions.

Under the programme's first funding round, MCFA1, electric cooking represented the lion's share of funding commitments, accounting for 46 % of committed funding at end of 2024, pointing to its competitiveness as a clean cooking technology. The development of efficient, low-cost electric cooking appliances is expanding market opportunities, and there is significant economic potential in local manufacturing

and distribution, which can create jobs and stimulate economic growth.

However, the survey of MCFA investees highlights that significant challenges remain. The availability of reliable electricity is a critical challenge for scaling electric cooking in Africa and MCFA project countries, most prominently Zambia. Many African regions, particularly rural and underserved areas, face limited or inconsistent access to electricity. This makes it difficult for households to adopt electric cooking solutions, as the infrastructure required to support these technologies is either lacking or unreliable.

“The development of efficient, low-cost electric cooking appliances is expanding market opportunities.”



Photo: Electricity poles in Mozambique - iStockphoto

Key challenges related to electricity availability include:

1. **Grid reliability:** Frequent power outages or unstable supply in many African countries make it impractical for households to rely on electric cooking as their primary solution.
2. **Access gaps:** Large portions of rural areas still do not have a connection to the electricity grid. Even in areas with access, low household electrification rates limit the reach of electric cooking technologies.
3. **Infrastructure limitations:** Inadequate transmission and distribution networks, coupled with the high cost of grid expansion, restrict the availability of electricity for cooking purposes.
4. **Cost of electricity:** Even when electricity is available, high tariffs can make electric cooking unaffordable for low-income households, further limiting adoption.

Financial barriers were cited among the most pressing, with billions needed annually to scale clean cooking solutions to achieve universal access. Affordability issues persist, particularly for low-income households, and the lack of robust consumer subsidy programmes exacerbates this problem. Policy and regulatory gaps further hinder progress, as many countries lack cohesive national strategies or consistent frameworks to promote clean cooking. Import tariffs on electric cooking appliances and the absence of financial incentives also discourage adoption.

Behavioural and awareness challenges also slow the adoption of electric cooking. Many consumers are unaware of its health and environmental benefits, while traditional cooking practices and cultural habits remain deeply ingrained in many communities. Financing clean cooking ventures is further complicated by the risk-averse nature of private investors, who are often hesitant to support early-stage or high-risk projects.

MCFA has two leading clean cooking companies offering electric cooking services to customers through affordable payment plans. MCFA has a strategic partnership with **BURN**, a clean cooking company and carbon project developer based in Kenya, to introduce and accelerate access to affordable, high-quality electric cooking solutions in five Sub-Saharan African countries. With the support of MCFA, BURN is planning to establish up to 456,000

clean cooking services and enhance its direct operational presence across the five target markets of DRC, Kenya, Mozambique, Tanzania and Zambia.

In early 2024, MCFA announced a new agreement for e-cooking services with Sayari Safi, which operates locally as UpEnergy Tanzania. **UpEnergy Tanzania** sells electric cookers provided by PowerUP, a Uganda-based climate-tech venture that seeks to replace biomass stoves with e-cookers designed for low-income families. UpEnergy has distributed over 5,000 units under the MCFA programme, enabling access to energy efficient electric pressure cookers with built in smart-metering technology that provides transparent and continuous usage monitoring. UpEnergy has been able to deploy PAYGO e-cookers to address the challenge of affordability among end users and is actively conducting behavioural pilot studies to explore various interventions aimed at increasing the adoption of the technology, ultimately improving the lives of communities in Tanzania. Tanzania has developed a National Clean Cooking Strategy that highlights measures to increase adoption of clean cooking solutions, including reducing the cost of clean energy, appliances and efficient cook stoves. These continuous efforts will further improve the affordability of e-cookers and reduce the financial burden on end users.

*“BURN’s innovative ‘Pay-as-you-Cook’ payment plan makes our ECOA Induction Cooker (iC) affordable for families – they can start cooking immediately for less than USD 0.50 a day. The cellular-enabled IoT technology in the stoves also allows us to generate high-quality carbon credits, subsidising the induction cooker even further. With the support of partners like MCFA, BURN plans to distribute the induction cooker to households across Africa, bringing the health, financial and environmental benefits of electric cooking to as many people as possible,” explains **Peter Scott**, CEO and Founder of BURN Manufacturing.*

*“Nearly 80 % of Tanzania’s electricity is sourced from renewable energy. The rollout of accessible, clean electric cooking presents an opportunity for families throughout the country to transition from biomass-dependent methods to electricity – the cleanest, healthiest cooking fuel. This shift will not only move households away from biomass but also bring substantial economic, health and social benefits,” comments **Rehema Mbalamwezi**, Vice President of UpEnergy’s Africa operations.*



Photo: A woman using an electric cooker - UpEnergy Tanzania



Adam Öjdahl
Chair of the MCFA
Steering Committee

Greetings from MCFA Chair

“Sweden is proud to be a co-founder of MCFA and to work alongside the European Union and Norway in supporting this flagship initiative for clean cooking in Africa. MCFA exemplifies a shared commitment to accelerating access to modern energy solutions, addressing energy poverty and mitigating climate change through private sector collaboration. The strategic governance of MCFA includes guidance, coordination and oversight, enhancing the programme’s ability to achieve its objectives.

The decision to entrust Nefco as Facility Manager reflects its proven expertise in managing innovative and complex financing mechanisms, ensuring robust due diligence, compliance and effective implementation. Nefco’s partnerships with actors like the Clean Cooking Alliance and GET.invest strengthen sectoral impact through technical expertise.

MCFA’s unique setup lies in its focus on its results-based financing approach, linking payments to verified results while combined with catalytic grants to facilitate project initiation and implementation. This approach fosters accountability and incentivises efficient and impactful delivery, making it a model for scaling energy access initiatives.

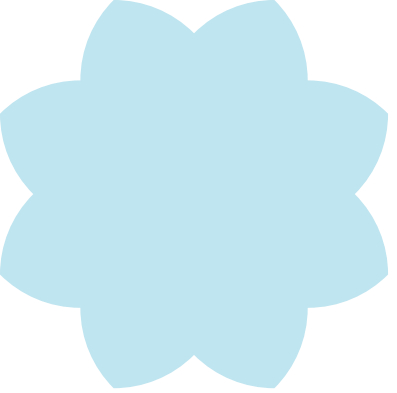
This collaboration underscores Sweden’s dedication to innovation, transparency and measurable impacts, reaffirming its commitment to sustainable development and international cooperation.”

“MCFA exemplifies a shared commitment to accelerating access to modern energy solutions, addressing energy poverty and mitigating climate change through private sector collaboration.”

*Adam Öjdahl, Chair of the MCFA
Steering Committee*

*Photo: Ambassador of
the European Union at
the celebration event
in Zambia in January
2024 - Jason Mulikita
for MCFA / Nefco*





Governance

FACILITY MANAGER
Nefco is the **Facility Manager** for MCFA and has overall responsibility for the programme. This includes fundraising, procurement, contracting, financial administration and disbursements.

DONORS AND STEERING COMMITTEE
The MCFA is funded by Sweden, through the Swedish International Development Agency (Sida); Norway, through the Norwegian Agency for Development Cooperation (Norad) and the European Union. Representatives from these **Donors** make up the MCFA Steering Committee, which serves as the programme’s strategic forum. In biannual Steering Committee meetings, Nefco reports on

progress and presents annual work plans, while donors offer strategic guidance and advice to support the achievement of the MCFA programme’s objectives.

The MCFA Steering Committee provides recommendations and serves as a forum for donors to discuss and coordinate with concerned embassies in the project countries. These discussions precede formal decisions on the Facility Manager’s recommendations on behalf of donors.

PARTNERS
Nefco has established partnerships with the **Clean Cooking Alliance (CCA)** and **GET.invest**, which provide sector expertise to the programme as needed.

Facility Manager:



Funded by:



Photo: Hans Olaf Ibrekk, Ministry of Foreign Affairs in Norway, speaking at the MCFA event at the UN Climate Change Conference COP29 - Joel Sheakoski for Nefco

Investment process

DUE DILIGENCE & INTEGRITY DUE DILIGENCE
After the origination of applicants through calls for proposals, shortlisted applicants enter Nefco’s standard investment process. The selected companies undergo a Due Diligence (DD) process, including an Integrity Due Diligence review (IDD). The main DD is outsourced and is currently performed by Danish Energy Management together with LFS Advisory. The consultant verifies that information provided by the applicants in their project proposals is materially correct, assesses the overall commercial, financial, social and environmental feasibility of the project proposals and identifies any related risks.

APPROVAL AND CONTRACTING
Upon successful completion of DD, each project proposal advances to Nefco’s Investment Committee. Upon approval from the Committee, Nefco seeks a motion of no-objection from Donors before proceeding with contract negotiations with the company. MCFA funding is available to the company for a maximum of four years from the contracting. All signed agreements are published on the Nefco and MCFA websites.

“MCFA funding is available to the company for a maximum of four years from the contracting.”

Implementation

During the project implementation, Nefco diligently tracks the project’s progress and monitors the results, while an Independent Verification Agent (IVA) verifies the accuracy and validity of these results. Throughout the implementation, the companies receive technical assistance support by dedicated consultants

TECHNICAL ASSISTANCE
 Technical assistance (TA) is offered to MCFA investees to support them in the implementation of their business plans, promoting gender equality and meeting programme requirements related to environmental and social sustainability. The TA offering includes business advice and coaching as well as support for gender inclusion and environmental and social compliance from Catalyst Energy Advisors and support to access carbon finance from Hamerkop Climate Impacts.



Photo: MCFA investee customer in Zambia - Jason Mulikita for MCFA / Nefco

MCFA investment and implementation overview

Selection process	Due Diligence		Approval process	Contracting
Call for Proposals	Nefco Integrity Due Diligence	Danish Energy Management Key eligibility check Project compliance with Nefco’s guidelines, Business Plan Assesment, Financial Assesment	Nefco Trust Fund Investment Committee Donor’s no objection	Contract negotiation Signing

Figure 9. Investment process overview

Nefco	NIRAS + 60 Decibels	Catalyst Energy Advisors	Hamerkop Climate Impacts
Payment Requests Annual Reviews	Independent Verification	General and thematic technical assistance	Carbon finance Technical Assistance
Monitoring		Technical Assistance	
Implementation			

Figure 10. Project implementation framework



Mwape B. Chipala
Director of Planning and Information, Ministry of Energy in Zambia

Institutional work in Zambia

The MCFA collaborates with stakeholders at both national and supranational levels. This collaborative approach allows the MCFA to learn from and contribute to country strategies and initiatives that promote clean energy solutions. In this section, Mwape B. Chipala, Director of Planning and Information, Ministry of Energy in Zambia, describes how MCFA has contributed to clean cooking efforts led by the Zambian government.

INSTITUTIONAL WORK IN ZAMBIA

One of MCFA's contributions has been its involvement in the development of Zambia's Clean Cooking Strategy and Action Plan. This multi-stakeholder process, led by the Zambian Ministry of Energy with coordination support from USAID's Alternatives to Charcoal Programme, has engaged public and private sector stakeholders. The European Union and Sweden, through their Embassies in Zambia, funded the solid and liquid biofuels components of the strategy. The work was carried out by EED Advisory and consisted of a baseline study and roadmap for the adoption of solid and liquid biofuelss for clean cooking in Zambia.

"This national strategy aims to accelerate the adoption of clean cooking solutions, addressing key environmental, health and socio-economic challenges while fostering sustainable development. The outlook for the clean cooking sector in Zambia is promising, with significant potential for transformative growth driven by Government commitment, international support and innovative programmes," explains Mr. Chipala.



Photo: Emerging Cooking Solutions customer in Zambia - Jason Mulikita for MCFA / Nefco

In addition, the MCFA has been working with the Zambian Ministry of Energy through the Energy Sector Advisory Group (ESAG), a platform that brings together various stakeholders to exchange knowledge and expertise across different areas of the energy sector. A key component of ESAG is the Clean Cooking Subcommittee, which includes diverse actors in the clean cooking space. In January 2024, the MCFA collaborated with the Zambian Ministry of Energy to promote the second MCFA call for proposals during a marketing event held in Zambia. Both the government of Zambia and MCFA share a strong commitment to advancing clean cooking initiatives in the country.

"The MCFA programme is poised to significantly enhance access to clean cooking solutions, yielding substantial environmental benefits by reducing deforestation and mitigating CO₂ emissions. Additionally, it is expected to improve public health outcomes and contribute to Zambia's economic growth," Mr. Chipala concludes.

"The outlook for the clean cooking sector in Zambia is promising, with significant potential for transformative growth driven by Government commitment, international support and innovative programmes."

Mwape B. Chipala, Director of Planning and Information, Ministry of Energy in Zambia

MCFA in international dialogue

MCFA is actively engaged in international dialogue to promote the important role played by the private clean cooking sector in global climate action and strengthening climate resilience in Africa.

Participation in international events is key to fostering collaboration, sharing best practices and driving innovation in the clean cooking sector. By engaging with global stakeholders, MCFA aims to amplify its impact and contribute to the achievement of international climate and sustainability goals.

In 2024, MCFA took part in several events, the most important of which are described below.

SUMMIT ON CLEAN COOKING IN AFRICA

In May 2024, MCFA participated in the Summit on Clean Cooking in Africa, which took place in Paris and was organised by the International Energy Agency (IEA) and chaired jointly by Tanzania and Norway. In connection to this high-level summit, new principles for responsible carbon finance for clean cooking were announced by the Clean Cooking Alliance (CCA) to support

the urgent scale-up of clean cooking initiatives in Africa and globally.

MCFA endorsed the **Principles for Responsible Carbon Finance for Clean Cooking**, which emphasise the integrity of carbon credits, transparency of information, fairness in revenue sharing throughout the value chain and the long-term sustainability of local clean cooking markets.

➔ [Read more](#)

As part of its commitment to these principles, MCFA has also **endorsed the cooking carbon project methodology**, by the Clean Cooking & Climate Consortium led by CCA. This methodology may be applied to cooking projects under Articles 6.2 and 6.4 of the Paris Agreement and the Voluntary Carbon Market subject to relevant methodological approvals. It aims to incorporate the latest science and increase accuracy of relevant input data for emission reduction calculations. As a result, the methodology is expected to generate the most realistic emissions reductions to date, reduce integrity risks, incentivise best practices and increase consistency across standard bodies and throughout the ecosystem.



Photo: Margaret Kim, CEO at Gold Standard, speaking at the MCFA event at the UN Climate Change Conference COP29 - Joel Sheakoski for Nefco

UN CLIMATE CHANGE CONFERENCE COP29

At the UN Climate Change Conference COP29 arranged in November 2024 in Baku, Azerbaijan, MCFA actively contributed to discussions on advancing clean cooking solutions as part of the global climate agenda.

The MCFA side event “Future growth scenarios in the clean cooking sector – Role of carbon finance to scale up activities”, organised by Nefco as the fund manager of MCFA at the Nordic pavilion, brought together leading practitioners to discuss how responsible carbon finance can enhance project economics and unlock new opportunities for commercial lending and other funding streams in the clean cooking sector, accelerating the scale-up of high-technology clean cooking solutions to strengthen climate resilience in Africa. The discussions emphasised the pivotal role of carbon finance in making clean cooking technologies accessible and the need for higher carbon prices to improve project economics. It also highlighted the importance of transparent and credible carbon markets, innovative technologies for monitoring impacts and higher carbon credit prices to unlock the sector’s potential.

➔ [Read a summary article of the event](#)

CELEBRATING FIRST COHORT OF FUNDED PROJECTS IN ZAMBIA

MCFA, together with its programme donors, Sweden and the European Union, arranged an event in Zambia in January 2024 to highlight the importance of scaling-up access to clean cooking, celebrate the first cohort of signed projects under the Modern Cooking Facility for Africa (MCFA) in Zambia and promote the programme’s second funding round. The Ambassadors of the European Union and Sweden and representatives of the financed companies participated as speakers at the event.

➔ [Read more](#)



The MCFA Team at Nefco

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Published: 2025
Copyright: Nefco

Cover photo:
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