Energising Development
Progress Report 2025

endev

Energising change

Partnership between

The German Federal Ministry for Economic Cooperation and Development (BMZ)
The Netherlands Ministry of Foreign Affairs, Directorate-General for International Cooperation (DGIS)
The Norwegian Agency for Development Cooperation (Norad)
The Swiss Agency for Development and Cooperation (SDC)

With co-financing from the **Australian Department of Foreign Affairs and Trade; the European Union (EU); Global Energy Alliance for People and Planet (GEAPP); Icelandic International Development Agency (ICEIDA) / Embassy of Iceland in Lilongwe; IKEA Foundation; Irish Aid; Korea Foundation for International Healthcare (KOFIH); Netherlands Enterprise Agency (RVO); Swedish International Development Cooperation Agency (Sida); Foreign, Commonwealth & Development Office (FCDO);** and **United States Agency for International Development (USAID).**

Coordinated and implemented by

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Netherlands Enterprise Agency (RVO)

Association pour le Développement de l'Energie Solaire (ADES)
Association of Volunteers in International Service (AVSI)
Netherlands Development Organisation (SNV)

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Energising Development at a Glance

Despite recent improvements in energy access, 666 million people worldwide still live without electricity and nearly 2.1 billion people lack access to clean cooking solutions, based on the latest estimates for 2023. After pandemic-related setbacks, electricity access increased faster than population growth again. Nevertheless, overall progress remains too slow to meet SDG 7 by 2030, particularly in remote and fragile contexts (ESMAP 2025). The programme Energising Development (EnDev) addresses these challenges through needs-based, climate-friendly energy solutions that strengthen socio-economic development and combat climate change. In doing so, it also contributes to better quality of life, health, education, and income opportunities.

EnDev's drive is to improve the lives of the most vulnerable people, ensuring that no one is left behind. Its approach empowers structural, self-sustaining change by building markets for modern energy technologies – creating economic opportunities and green jobs while contributing to reduced or avoided greenhouse gas emissions to protect our planet's climate. These markets and sectors evolve sustainably even after EnDev phases out.

EnDev's work is about people. Results are monitored and reported rigorously. EnDev's achievements in supporting households, social institutions as well as enterprises to gain access to electricity or modern cooking solutions can be found in this report. This report also presents EnDev's impacts on gender, job creation, and mitigated carbon dioxide emissions.

EnDev is a strategic partnership. Dedicated donors, partners, and individuals work together to support social development and economic growth by providing access to modern, renewable energy in 20 countries in sub-Saharan Africa and Asia during the reporting year. The driving force behind EnDev is the partnership of Germany, the Netherlands, Norway, and Switzerland: donors which are committed to accelerating energy access.

EnDev's Key Achievements

By December 2025

36.7 million
people with access to modern energy

8.1 million
people with access to electricity

28.6 million
people with access to modern cooking solutions

126,460
micro-, small-, and medium-sized enterprises with access to modern energy for productive use

3.21 million
tonnes of CO_2e emissions mitigated in 2025

37,060
social institutions with access to modern energy

1 Executive Summary

EnDev's 2025 progress advanced core priorities – already exceeding several 2026 targets – while celebrating 20 years of collaborative impact and ensuring proven approaches endure for universal energy access.

Throughout 2025, the multi-donor partnership Energising Development (EnDev) demonstrated continued momentum across 20 countries towards its 2026 targets, with several key ambitions exceeded one year ahead of schedule. To date, EnDev provided modern energy access to 36.7 million people, supported 37,060 social institutions, and empowered 126,460 micro-, small-, and medium-sized enterprises (MSMEs) with energy for productive use. For MSMEs, the programme's ambition is exceeded one year ahead of schedule. These efforts also contributed to the creation of a total 35,900 jobs in the energy sector and mitigated 3.21 million tonnes of greenhouse gas emissions in 2025 alone.

In 2025, EnDev's private-sector approach continued to drive programme impact and strengthened solar and clean cooking markets. Through results-based financing (RBF), tailored business development support, and enhanced access to finance, the programme enabled companies to scale operations, reach underserved communities, and catalyse more mature, resilient local energy markets.

In line with its strategic priorities, EnDev made significant progress in inclusive energy access and higher-tier cooking solutions. In total, 2.1 million marginalised people from *Leave No One Behind* (LNOB) groups gained access to modern energy, with which EnDev already exceeded the ambition set for 2026. At the same time, 1.7 million people have now gained access to higher-tier cooking solutions, also surpassing the programme ambition one year ahead of schedule. A key driver of progress has been the scale-up of electric cooking (eCooking) solutions across several partner countries.

Celebrating 20 years of EnDev implementation, a global communication campaign showcased achievements and lessons learnt while honouring the contributions of partners and donors. EnDev complemented the campaign with a concept for knowledge continuity to safeguard 20 years of implementation experience.

As part of its strategic focus on sub-Saharan Africa and ahead of the planned transition of EnDev from a global programme to a regionalised programme, EnDev concluded its successful engagement in Asia, phasing out activities in Bangladesh, Cambodia, Laos, and Nepal through structured handovers to governments and the private sector. Simultaneously, foundations were laid for the future EnDev programme focused on Africa, ensuring knowledge transfer and intervention sustainability in 2026.

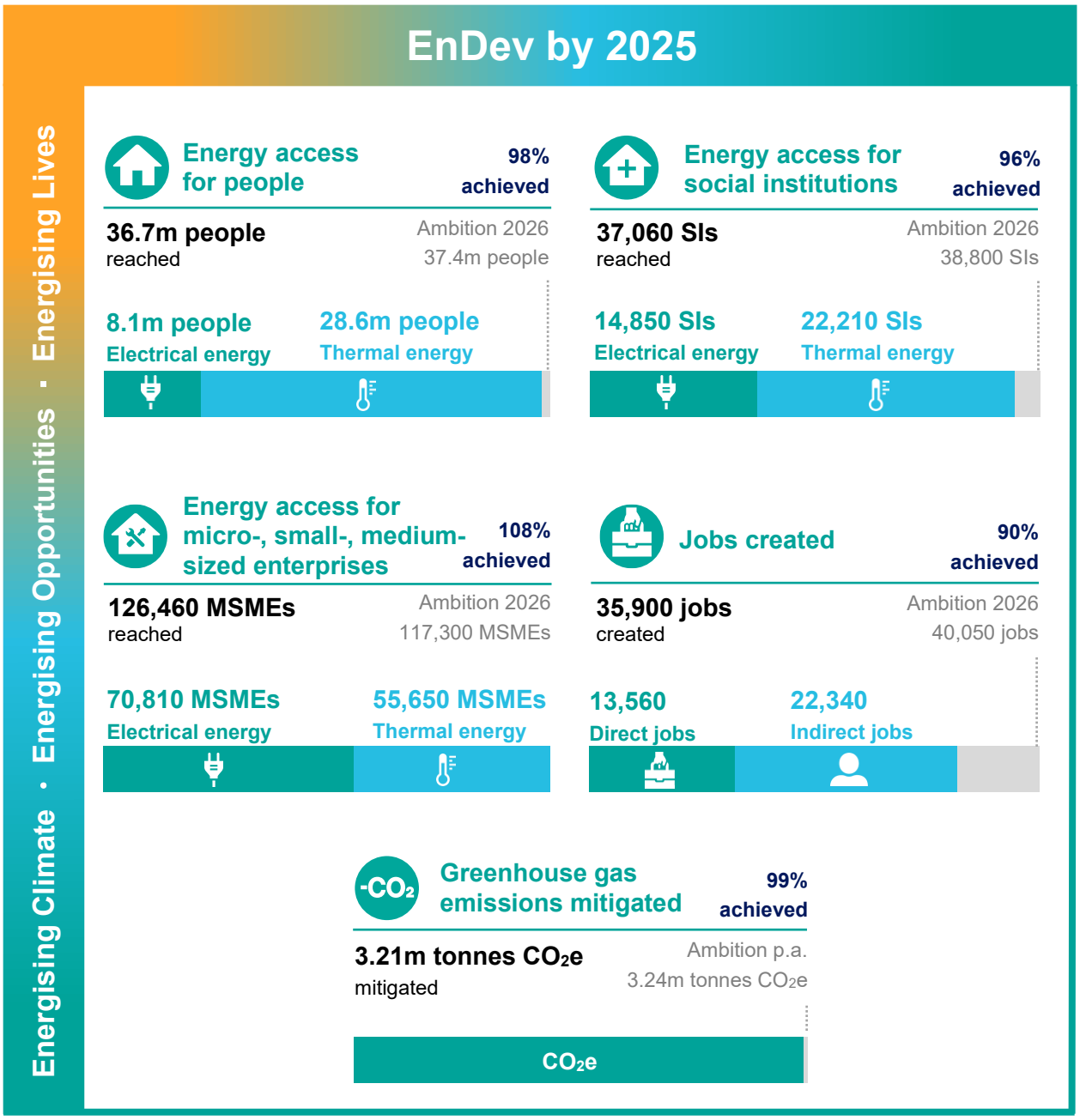
In 2025, EnDev further consolidated its funding base, bringing the total commissioned funds to EUR 605.86 million, including additional contributions from the European Union (EU) and the Netherlands Enterprise Agency (RVO). Annual expenditures reached EUR 55.13 million, exceeding the recent three-year average and reflecting strong implementation performance. By the end of the year, cumulative expenditures stood at EUR 556.93 million, leaving EUR 48.6 million available for final programme implementation through 2026.

Altogether, EnDev is on track or ahead of its ambitions, while sharing successes through landmark campaigns and safeguarding knowledge for the energy access sector and future initiatives. Strong implementation results, strategic portfolio evolution, robust partnerships, and solid financial management demonstrate EnDev's continued leadership in advancing global energy access.

2 Progress of Outcomes and Impacts

With 36.7 million people reached, EnDev is well on track towards its 2026 ambitions. The ambition for supported MSMEs has already been reached by the end of 2025, underscoring the programme's strong impact on the private sector.

Figure 2-1 Annual progress dashboard



2.1 Energising Lives: Social development

EnDev fostered inclusive and sustainable energy markets in 16 sub-Saharan African and four Asian countries in 2025, extending modern energy access to remote households and social institutions.

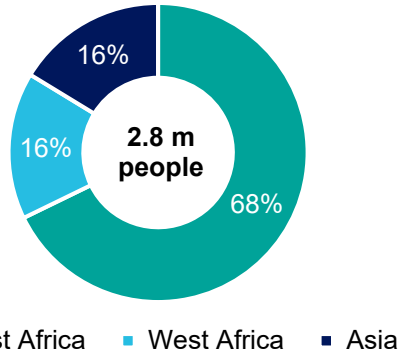
Access to energy

In 2025, EnDev expanded access to modern energy for an additional 2.8 million people, including 1.4 million women and girls. Since 2005, the programme reached a total of 36.7 million people (18.4 million women and girls). This equates to 98% of EnDev's ambition of reaching 37.4 million people by the end of 2026.

EnDev reached most beneficiaries in 2025 in sub-Saharan Africa. Beneficiaries in this region accounted for 84% of the people reached in 2025 (see Figure 2-2), with the largest gains in Malawi, Tanzania, Ethiopia, and Senegal. Nepal recorded the highest number of people reached among the Asian countries in 2025.

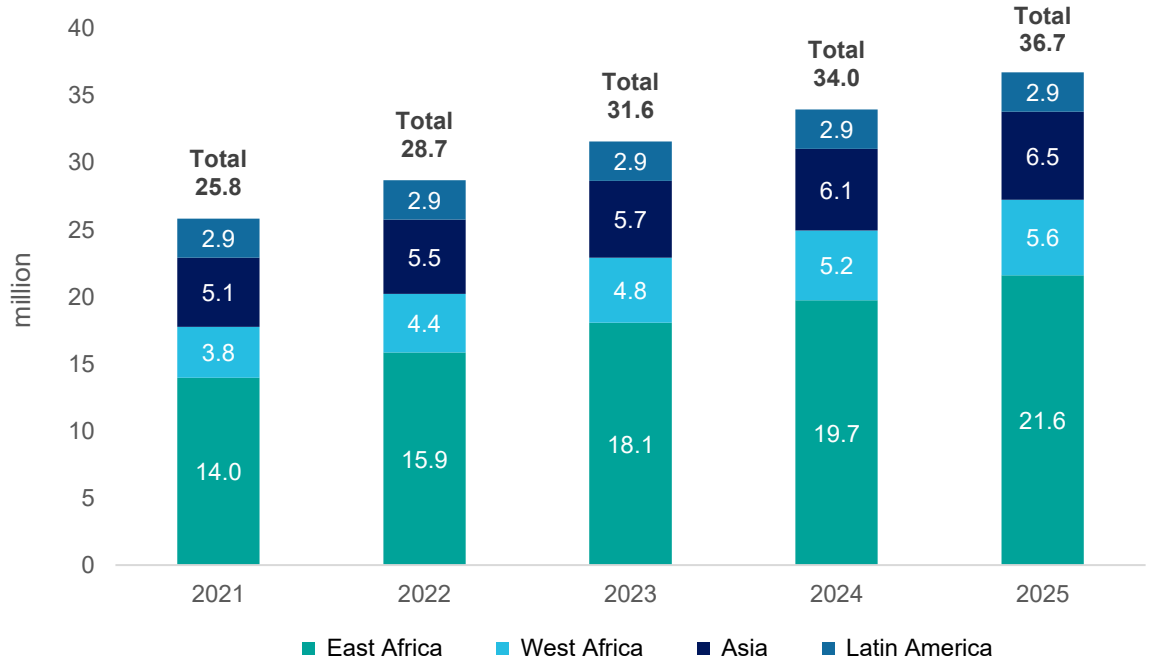
Looking at the cumulative results since 2005, EnDev reached 74% of the beneficiaries in sub-Saharan Africa, with East Africa alone accounting for 21.6 million people, and West Africa for 5.6 million people. 18% of the people reached are in Asia, and 8% in Latin America (see Figure 2-3). The countries with the largest number of people reached are Kenya, with 6.5 million people, Bangladesh with 4.2 million, as well as Ethiopia, Uganda, and Senegal, each reaching around 3 million people.

Figure 2-2 People reached by region in 2025[1]



In terms of energy type, 88% of the people reached in 2025 gained access to thermal energy, mainly through clean cooking solutions. A further 12% gained access to electricity. Since 2005, EnDev reached most households through thermal energy, with

Figure 2-3 People reached overall



[1] Due to rounding of values, applied generally in this report, totals may not sum to 100%.

electricity covering 22% of total household energy access.

Analysis of the relationship between achievements and expenditures shows that the spending ratio improved steadily from EUR 47.8 per person reached in 2020 to EUR 12.2 per person reached in 2023, driven by scaling effects and the expansion of the cooking portfolio. Spending per person then increased to EUR 18.9 in 2024 and EUR 20.0 in 2025. Despite this rise, expenditures per person remain less than half of the 2020 level. The increase is closely linked to strong growth in higher-tier cooking solutions and a high share of LNOB interventions, which, as described in 2024, require higher investments than other EnDev activities.

Quality of access levels of electricity and clean cooking

EnDev uses the Multi-Tier Framework for Energy Access, developed by the World Bank Group and others, to assess the quality of both thermal and electricity access. Tier 1 represents basic access, such as small photovoltaic (PV) systems with a capacity of less than 3 watts or improved biomass stoves using traditional fuels, while Tier 5 corresponds to full, reliable access, such as grid electricity and eCooking (see Tables 2-1 and 2-2 for reference).

In 2025, EnDev achieved significantly higher results in access to electricity of Tier 5 solutions compared to the previous year. This was driven by cost-efficient expansion for eCooking solutions and grid densification through RBF schemes, which helped reduce connection costs. While investments in higher-tier electricity solutions (Tier 2-4) continue to face bankability challenges, EnDev continues to test improved business and delivery models through targeted concepts for the productive use of energy and pilot activities to strengthen sustainability and scalability.

In 2025, EnDev's percentage growth in Tier 1 electrification access fell to single-digit levels for the first time in recent years, reflecting the maturation of small-scale solar markets in early-adopter and more commercially viable areas of partner countries. Despite relatively slower growth, EnDev maintained a strong focus on vulnerable and remote populations, with the majority of new Tier 1 connections reaching LNOB target groups.

Table 2-1 Number of people reached with electricity access by Tier level

Access level	Number of people reached in total	Number of people reached in 2025	Growth in 2025	Example appliances, systems, and technologies
Tier 5	949,790	46,320	5%	Grid, mini-grid, customised PV-systems (≥ 2kW capacity)
Tier 4	872,230	20	0%	Limited grid, mini-grid, customised PV-systems (≥ 800W capacity)
Tier 3	264,060	3,480	1%	Mini-grid, customised PV-systems (≥ 200W capacity)
Tier 2	1,816,150	7,760	0.4%	Customised / preconfigured PV-systems (≥ 50W capacity)
Tier 1	3,337,010	271,620	9%	Preconfigured PV-systems (≥ 3W capacity)

When it comes to clean cooking, people with Tier 1 and Tier 2 access constitute the largest share of beneficiaries in absolute terms, as these tiers provide the most affordable and accessible solutions for households. Meanwhile, in 2025, EnDev once again recorded substantial growth in higher-tier cooking, with notable increases particularly in Tier 5. This progress was primarily driven by households adopting the cleanest cooking option, eCooking, which continued its strong momentum, with 137% growth in 2025. Tier 3 access also grew significantly, mainly through locally produced high-performing biomass stoves. This pattern highlights EnDev's strategic commitment to expanding access to higher-tier cooking solutions and supporting households in adopting cleaner, more efficient technologies.

Table 2-2 Number of people reached with clean cooking by Tier level

Access level	Number of people reached in total	Number of people reached in 2025	Growth in 2025	Reference service level[2]
Tier 5	813,390	470,320	137%	Cooking with electricity and/or biogas and respective stoves
Tier 4	541,230	41,950	8%	Cooking with ethanol cookers, pellet gasifier and/or advanced biomass stoves
Tier 3	293,440	122,620	72%	Range of high performing solid biomass stoves
Tier 2	11,552,710	822,340	8%	Range of medium performing solid biomass stoves
Tier 1[3]	11,187,400	966,790	9%	Basic improved solid biomass stoves (with traditional cooking technologies and fuels)

Progress of energy access in associated projects

In addition to EnDev's results, three "associated projects" contribute to the programme's overall impact. Associated projects follow the latest EnDev Strategy and therefore also the programme's objectives, key features, and approach. Together, EnDev and its associated projects have provided modern energy access to a cumulative total of 55.4 million people (see Figure 2-4).

The associated project **Promotion of climate-friendly cooking in Kenya and Senegal**, funded by the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Green Climate Fund (GCF) and implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), was successfully completed in 2025 after five years of implementation. The project used its market transformation approach for improved cookstoves to provide climate-friendly cooking solutions to 17.9 million people in 2025, reaching a cumulative total of 23.7 million. Women made up 51% of the beneficiaries. The project exceeded its targets and played a decisive role in transforming historically artisanal production structures into a commercially viable and sustainable semi-industrial sector in both Kenya and Senegal. By promoting professionalised enterprises and strengthening nationwide distribution, the

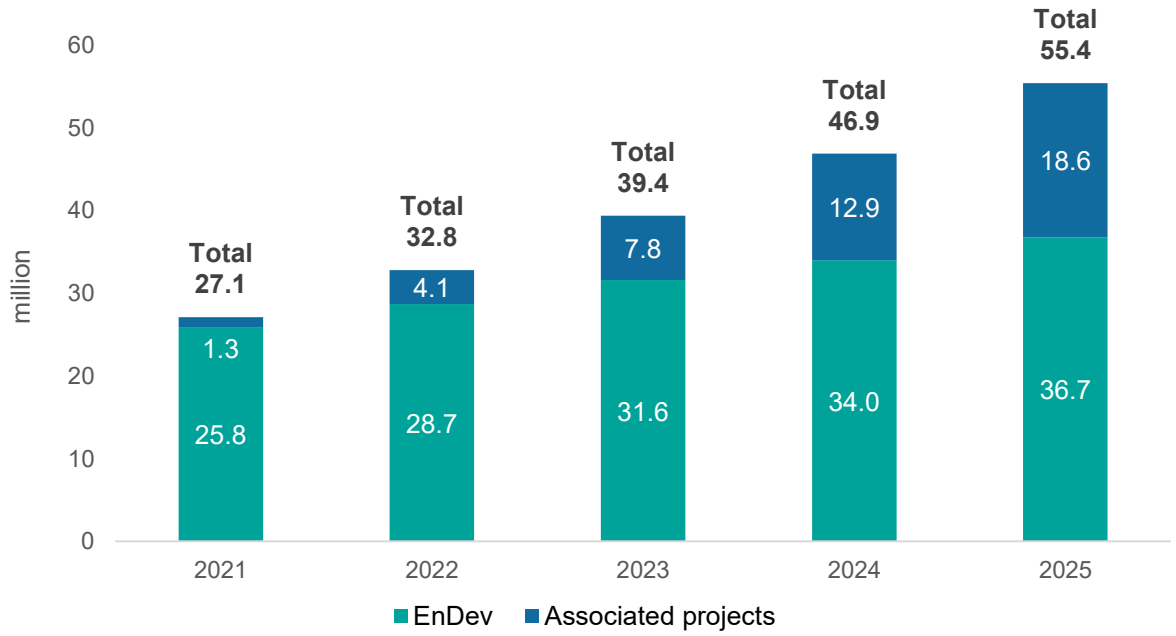
[2] In practice, people often use multiple cooking solutions ("stove stacking"), with the table showing typical technologies and fuels by service level.
[3] All cooking solutions promoted under EnDev must pass the eligibility criteria of either min. 20% thermal efficiency or min. 30% fuel saving compared to the baseline cooking solution.

project enabled a self-sustaining market for improved cookstoves that operates at full commercial prices without consumer subsidies. In parallel, the project established robust monitoring and reporting systems to demonstrate greenhouse gas emission mitigation and support the integration of clean cooking into national climate frameworks and Nationally Determined Contributions (NDCs). An external project evaluation, conducted under GIZ's corporate evaluation unit, rated the project 93 out of 100 points, achieving the highest possible rating, level 1 ("highly successful"). Lessons from the project continue to guide future programmes and are summarised in the Lessons Learnt Report. An example of how the project supported an enterprise to transform its business is highlighted on page 8.

The associated project **Strengthening the Entrepreneurial Ecosystem for Clean Cooking (SEE-CC)**, funded by the Netherlands Directorate-General for International Cooperation (DGIS), the EU, and DANIDA, implemented by RVO, made further progress in 2025. The African Biodigester Component of SEE-CC continued to support local biodigester markets. By the end of 2025, a cumulative 8,690 biodigesters had been built, including an additional 3,520 in 2025. In total, 47,600 people gained access to Tier 4 and 5 energy services, including an additional 20,360 people in 2025, across Burkina Faso, Kenya, Mali, Niger, and Uganda. The Higher Tier Cooking Component reached a cumulative total of 711,810 people in Bangladesh, Cambodia, Ethiopia, and Uganda, primarily through eCooking solutions, including an additional 489,970 people in 2025. Overall, SEE-CC contributes to improved health outcomes and climate change mitigation, while empowering consumers and reducing time as well as household energy costs.

In 2025, the **Regional Clean Cooking Action for West Africa (ReCCAWA)**, the newest EnDev-associated project, launched an inventory study to map ongoing activities and government priorities for cleaner cooking. The study identified uneven progress across countries but also highlighted opportunities for regional cooperation. Building on these insights, ReCCAWA supports nationally coordinated platforms that unite ministries in partner countries, align priorities, and drive joint action. The regional partner – the Economic Community of West African States (ECOWAS) Centre for Renewable Energy and Energy Efficiency – leads the participatory development of a regional action plan with a gender-transformational approach. In addition, the centre supports ECOWAS member states through an online clean cooking knowledge hub. Country activity packages have been developed for Senegal, Togo, and Sierra Leone, alongside national initiatives in The Gambia, Benin, and Mali.

Figure 2-4 People reached by EnDev and its associated projects



Social institutions

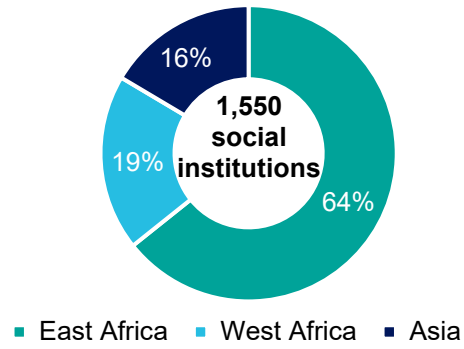
Beyond household energy access, EnDev supports social institutions, such as schools and health centres, enhancing the provision of essential services like education and healthcare.

In 2025, EnDev delivered modern energy services to an additional 1,550 social institutions, bringing the total to 37,060 institutions connected to energy. With this progress, EnDev has now achieved 96% of its ambition to provide modern energy access to 38,800 social institutions by 2026.

Sub-Saharan Africa accounted for 83% of all new connections in 2025 (see Figure 2-5). Of the new connections, Ethiopia alone represents 54%, with school feeding programmes driving particularly high uptake of cooking solutions, followed by Liberia (8%), where EnDev supported the electrification of health centres, Senegal (7%), and Uganda (6%). Besides sub-Saharan Africa, Nepal accounted for 16% of new connections in 2025 in its final year of implementation.

The main technologies supported included improved cookstoves, solar water pumps for schools and churches, and solar systems that power medical appliances and provide lighting in both health centres and churches.

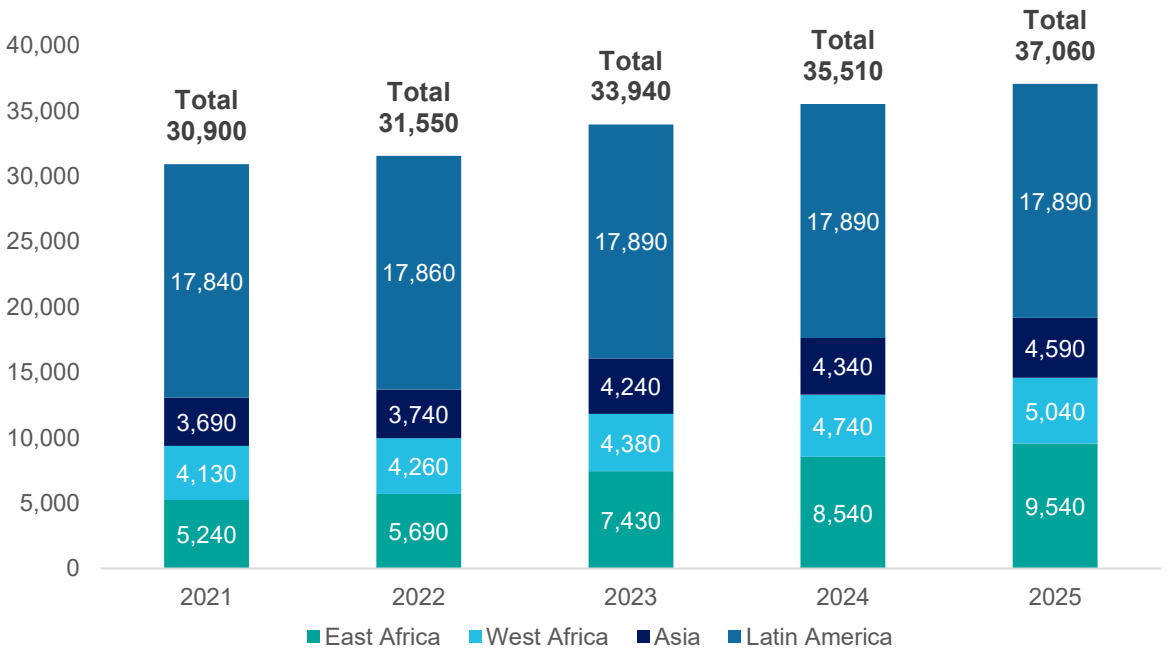
Figure 2-5 Social institutions reached by region in 2025



In 2025, 66% of newly reached social institutions gained access to thermal energy, while 34% gained electricity. The strong results in Ethiopia contributed to the higher share of thermal solutions compared to 2024. Overall, 60% of the social institutions reached since 2005 gained access to thermal energy.

Looking at the results since 2005, Latin America still accounts for a substantial share of cumulative results (48%), while ongoing implementation in sub-Saharan Africa has further increased the contribution from this region (see Figure 2-6).

Figure 2-6 Social institutions reached overall



Of the 35,060 social institutions that EnDev supported with access to modern energy since 2005, 65% are educational institutions (21,160) and health centres (3,100). Among the health centres reached, 580 were supported through Energising Health, a BMZ-funded initiative implemented by EnDev since 2023 and concluded in 2025.

The activities provided solar home systems for lighting, communication, and medical devices, benefiting health centres in Ethiopia, Liberia, Malawi, Mali, and Senegal.

Beyond health centres and schools, EnDev also supported a range of other social institutions, including community centres, in gaining access to modern energy.

Market spotlight

From local production to national impact

Scaling local enterprises to drive commercially viable cooking markets.

Company profile

Bruce Kimanthi Mukuru is a Kenyan entrepreneur and owner of one of the largest nationally operating improved cookstove production businesses, based in Tharaka Nithi County. His company manufactures climate-friendly cookstoves for household and institutional use.

From workshop to industrial scale

Combining local production with a growing distributor network, the company supplies customers across Kenya. With support from EnDev's associated project **Promotion of climate-friendly cooking**, the business scaled up from artisanal manufacturing to intermediate industrial production. Monthly output rose from 1,000 to more than 5,000 cookstoves, while the workforce grew from fewer than 10 to over 40 employees, strengthening local value chains and job creation. In 2025, President Ruto honoured Bruce as a National Hero in the category of environmental conversation.

Bruce Kimathi displays one of the climate-friendly cooking stoves at his workshop.

Cooperation for quality and growth

Through targeted technical and business development support, the project enabled the company to upgrade its production processes, improve product quality and strengthen business management. Training and tailored advisory services enabled Bruce's team to meet higher standards, reduce waste, and respond more effectively to market demand.

Driving a commercially viable market

The company's growth illustrates how locally owned enterprises can drive the clean cooking transition at scale. At market level, the project supported 156 improved cookstove enterprises to increase productivity: 100 producers moved from artisanal to intermediate scale and 56 advanced to formalised business level. Intermediate and business-class producers now account for 95% of improved cookstove sales in Kenya and 89% in Senegal, enabling nationwide distribution at full commercial prices without subsidies. The company's success therefore reflects a broader shift towards commercially viable clean cooking markets.

Employees handling liners used in the production of the stoves.

2.2 Energising Opportunities: Economic development

EnDev not only expands energy access for households and social institutions but also drives sustainable and inclusive economic development in rural areas. The programme promotes the productive use of energy among MSMEs, supporting businesses such as restaurants with efficient stoves and smallholder farmers with solar water pumps. The productive use of these technologies helps businesses become more efficient, grow their operations, and create new jobs.

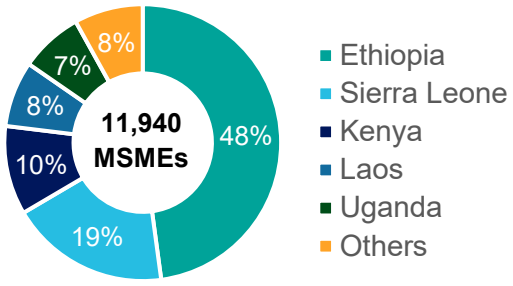
Through market-based support measures, including RBF, access to finance, and targeted business development services, EnDev drives growth in the solar and clean cooking markets. In doing so, the programme ensures that affordable, high quality energy solutions reach more businesses and generate lasting economic benefits.

Micro-, small-, and medium-sized enterprises

In 2025, EnDev supported the productive use of energy of 11,940 additional MSMEs, bringing the total number reached to 126,460. This means that EnDev surpassed its 2026 target of 117,300 MSMEs one year ahead of schedule, reaching 108% of the target.

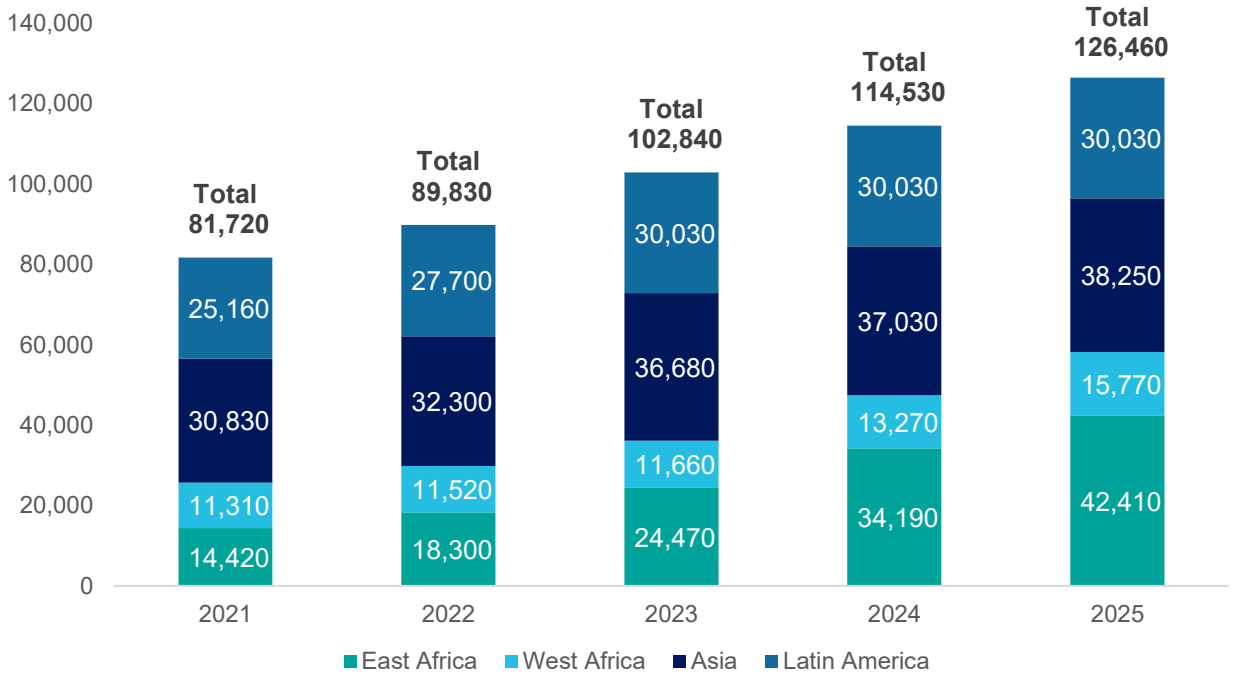
Of all entrepreneurs supported by EnDev since 2005, roughly one third are in Eastern Africa, slightly less than one third in Asia, 24% in Latin America, and 13% in West Africa (see Figure 2-7).

Figure 2-8 MSMEs reached by country in 2025



The largest share of newly supported enterprises in 2025 was in Eastern Africa, accounting for 69% of MSMEs reached. This was largely driven by activities in Ethiopia (see Figure 2-8), where street cafés and food stalls in refugee camps and host communities benefitted from an expanded stove programme. West Africa accounted for 21% of MSMEs reached, followed by Asia with 10%. In West Africa, Sierra Leone contributed significantly, where an RBF initiative for electrical appliances drove strong uptake.

Figure 2-7 MSMEs reached overall



With regards to the types of energy accessed in 2025, more businesses made use of thermal energy (64%) than electrical appliances (36%), continuing the trend of rising shares of thermal energy in MSMEs since 2024. This development reflects both strong campaigns promoting improved cookstoves in countries such as Ethiopia and Laos and the wind-down of some electrical support instruments. One example is the IKEA Foundation-funded Sustainable Energy for Smallholder Farmers (SEFFA) project in Ethiopia, Kenya, and Uganda, which supported electrical energy access and ended as planned in 2024. Despite the conclusion of such MSME support instruments, EnDev continued to expand MSME energy access in 2025 at a pace similar to 2024.

In 2025, improved cookstoves remained the most widely adopted thermal solutions among MSMEs, with the highest adoption recorded in Ethiopia, Laos, and Uganda. Many MSMEs in Kenya and Nepal made use of eCooking devices. The use of thermal energy beyond cooking remained limited but included applications such as solar dryers for coffee beans.

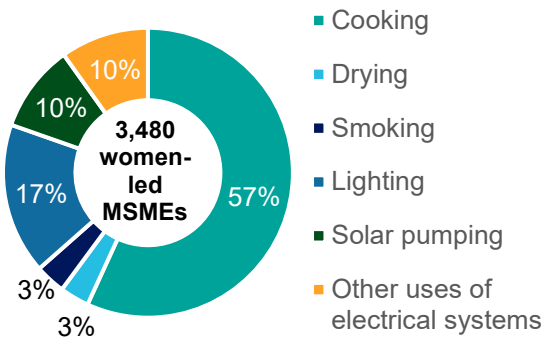
For MSMEs gaining improved electricity access in 2025, Sierra Leone represented 52% of the total. This was largely driven by a funding of the EU to EnDev for transformational energy use focused on lighting solutions. In Kenya and Uganda, the next largest contributors, EnDev supported most companies with electrical appliances, mainly solar water pumps for farming. A notable development was the support of several electric rickshaws in Nepal, although electric motorcycles remain rare in EnDev interventions outside urban centres.

Most of the MSMEs supported in 2025 operated in the services sector (62%), particularly in food, beverage, and accommodation, with many using improved stoves for cooking and baking. One third (32%) worked in agriculture, forestry, and fishing, mainly using appliances for water pumping, grain milling, and fish smoking. The remainder ran small retail stores or manufacturing workshops and used electrical energy for cooling, freezing, and lighting.

EnDev supports farmers in Uganda with solar water pumps.

Supporting women-led enterprises remains a key priority for EnDev. In 2025, 30% of the supported MSMEs were women-led, reinforcing EnDev's impact on female entrepreneurship and inclusive economic growth. Most of the supported enterprises used energy solutions for food production or agricultural work (see Figure 2-9).

Figure 2-9 Types of activities of women-led MSMEs in 2025



Looking at EnDev's MSME support over the longer term, 71% of MSMEs supported since 2005 purchased improved biomass cookstoves or appliances such as water pumps, while 29% have adopted electrical systems (off- / on-grid), biodigesters, or eCookers.

The achievements in MSME support, surpassing the programme's targets, underline EnDev's contribution to sustainable and inclusive rural economic growth.

Strengthening market ecosystems

EnDev's strong results are grounded in its broader effort to build resilient and inclusive energy markets. By applying a market-based approach, the programme works with private-sector actors across diverse ecosystems, many of which are dominated by informal enterprises that struggle with limited access to finance, volatile supply chains, and high investment risks. EnDev helps these markets mature by strengthening business capacities and improving access to finance.

Among EnDev's instruments, RBF is one of the most effective tools stimulating market growth. By linking disbursements to verified connections, sales, or service levels, these incentives encourage energy companies to expand into underserved regions and customer segments while maintaining quality standards. For example, solar companies are encouraged to offer smallholder farmers solar water pumps and other productive use appliances, directly connecting business growth in the solar sector with measurable outcomes. In 2025, EnDev reached 879,020 people, social institutions, and MSMEs specifically through RBF. EnDev's experience with RBF is explored in more detail in the programme's flagship RBF report.

Complementing instruments such as RBF, EnDev actively unlocks capital and builds the capabilities of clean energy enterprises. In 2025, the programme expanded its access to finance portfolio despite high interest rates and heightened global investment uncertainty. Through the SME Finance Facilitator, EnDev partnered with crowd lender Kiva. Kiva mobilised USD 200,000 for Bidhaa Sasa, a company selling eCookers in Kenya, and USD 98,000 for HERi, a solar home systems distributor in Madagascar. Collaboration with the Green Genset Facility (GGF), a European not-for-profit provider of results-based inventory financing, strengthened the facility's capacity and is expected to mobilise ten new deals in 2026.

Beyond the SME Finance Facilitator, EnDev and the Global Distributors Collective launched the Investment Catalyst Facility to help last-mile distributors prepare for investment and access debt. As a first step, in 2025, seven companies received support combining technical assistance, catalytic co-financing, and de-risking capital.

Furthermore, EnDev piloted innovative finance solutions: in Ethiopia, it partnered with fintech Digital Equb to design loan products for up to 150 renewable-energy enterprises; in Mozambique, it provided business training and matchmaking through local financial institutions. EnDev further supported the Micro-Asset Finance Lab in developing the in24 platform, a European micro-asset finance platform set to be piloted in Uganda in 2026. The platform is designed to make the last mile bankable and unlock new opportunities for scalable, inclusive energy finance.

EnDev also supports the broader growth and pipeline development of MSMEs to strengthen sustainable market development. The programme's business development instrument, the Energy Enterprise Coach, expanded in 2025 to Burundi, Nepal, Rwanda, Senegal, and Tanzania. 44 new companies joined the programme, bringing the total to 160. These enterprises benefited from tailored coaching and mentoring, while networking and matchmaking events linked them to financial institutions and expanded funding opportunities.

Energy Enterprise Coach training in Mozambique.

Together, these mechanisms strengthen EnDev's private-sector approach, enabling MSMEs and energy enterprises to grow, reduce dependence on subsidies, and boost investor confidence. Partnerships with technology providers and local distributors combine global expertise with local market knowledge, building resilient, market-based ecosystems that advance inclusive economic growth, job creation, and climate-friendly energy solutions

Market spotlight
Cooperation with Spark

EnDev's private sector cooperations unlock solar market expansion.

Company profile

Spark is a European based company that provides modular, VeraSol-certified solar systems combined with distributor financing models.

Business model and market approach

Spark builds long term partnerships with national distributors to understand local needs and deliver tailored one-stop solar solutions that help scale their business. This approach enables the company to expand access to solar systems in underserved markets while strengthening local technical capacities, such as solar engineering expertise.

Cooperation with EnDev

Spark products are sold in several EnDev countries, including Liberia and Niger under the Demand-Side Subsidy (DSS) component. In nascent markets where limited supply and stock of solar home systems constrain market development, EnDev supports local companies through RBF schemes, with Spark supplying pre-configured solar systems as an example. Spark, local companies and EnDev country teams work closely together to ensure that products reach end users.

Relevance for market development

In addition to EnDev's DSS component, local companies also sell Spark systems within EnDev in Mali, Mozambique, and Uganda. In Uganda, for example, local companies sell Spark products to MSMEs such as hair salons using electric hair-cutting machines and agricultural enterprises requiring cooling solutions. Overall, Spark partnered with 17 local sales companies under EnDev since 2023. Together, these collaborations have delivered over 20,000 systems, demonstrating not only the company's impact on sustainable energy markets but also the tangible opportunities for mutual value creation – strengthening local economies while fostering business growth in Europe.

Spark customer in Niger with a new solar system.

Employment effects

In addition to boosting businesses and markets, EnDev creates jobs across clean energy supply chains. Employment in the sector boosts local economies and provides stable income opportunities.

EnDev tracks job creation in the production and distribution of improved cookstoves, as well as in the deployment of renewable energy infrastructure and appliances, such as solar energy companies and mini-grid operators.[4] Jobs generated through the productive use of energy are counted as indirect jobs.

In 2025, EnDev-supported activities created employment for 35,900 people, up from 32,780 in 2024, reaching 90% of the annual target of 40,050 jobs.

6,750 people were employed in the production, distribution, and sales of cooking energy technologies in 2025. This also included the distribution of eCookers, sales of which grew significantly (see also Chapter 3.2 Scaling higher-tier cooking solutions). In the electricity sector, 630 people gained employment as solar product distributors.

Since 2014 (when this indicator was first introduced), 6,180 people have gained employment in the technical and administrative operation of EnDev-supported mini-grids.

EnDev continues to stimulate economic opportunities through its support for energy access and has seen a steady increase in annual job creation over the past years. Employment effects through MSMEs have also grown consistently during this period. Among the MSMEs that EnDev supports with productive energy use, it is estimated that since 2014, 22,340 people were employed in part-time jobs as an indirect result of EnDev support (see Table 2-3).

The trend towards professionalising the production of improved cookstoves, noted in the 2024 Progress Report, persists. In 2025, EnDev continued to support enterprises in streamlining operations, optimising resource use, and reducing manufacturing time. Although this slows progress toward the overall employment target, the reduction in labour hours reflects the programme's focus on efficiency, ultimately enabling greater impact and long-term sustainability.

These developments illustrate how EnDev's approach increasingly combines job creation with efficiency gains, fostering both sustainable employment and resilient market growth within the clean energy sector.

Table 2-3 Employment effects: EnDev-induced part-time jobs as of 2025

	Direct jobs			Indirect jobs
	Production and assembly	Distribution and sales	Operations and maintenance	MSME application of technologies
Cooking energy technologies	5,050	1,700		22,340
Solar products		630		
Mini-grids			6,180	
Total	**35,900 jobs**			

[4] Temporary jobs that exist during mini-grid construction are not considered.

2.3 Energising Climate: Combating climate change

EnDev works on combating climate change by mitigating greenhouse gas emissions. The programme promotes cleaner, more efficient cooking technologies and renewable energy-based electrification, in line with its mission to ensure sustainable energy access. EnDev remains committed to transparent and reliable climate reporting, calculating carbon dioxide equivalent (CO_2e) mitigation in accordance with internationally recognised standards, particularly those of the United Nations Framework Convention on Climate Change (UNFCCC).

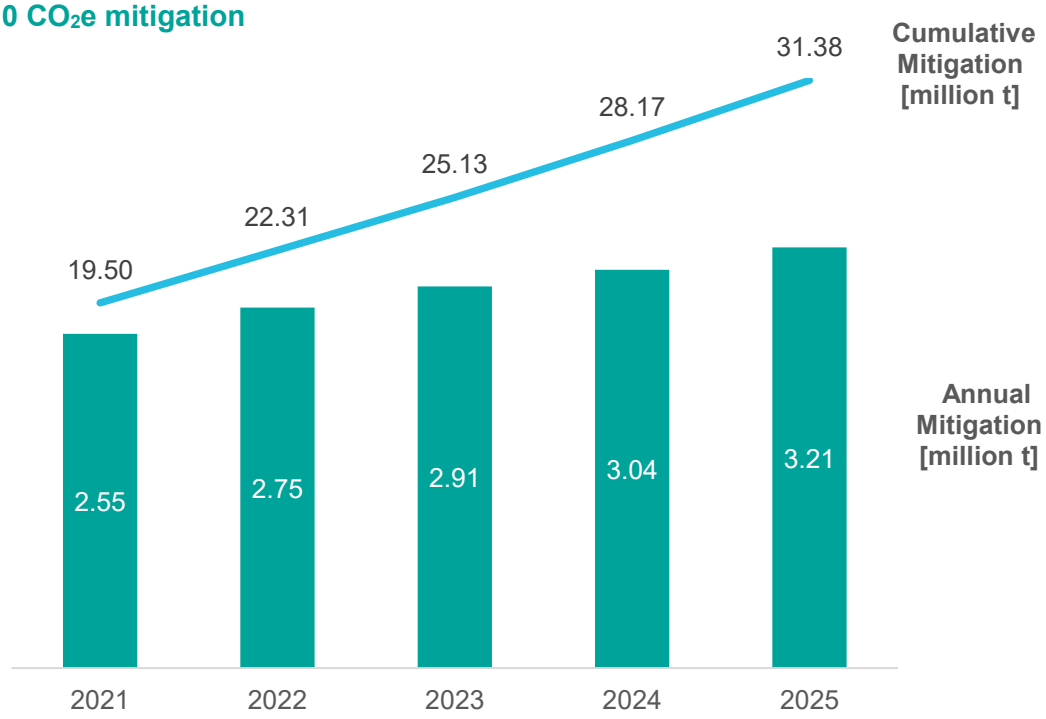
In 2025, EnDev further increased its annual emission mitigation to 3.21 million tonnes of CO_2e, representing an increase compared to 2024. Compared with the annual target of 3.24 million tonnes of CO_2e, EnDev achieved 99% of its target. Since 2011, the programme has cumulatively mitigated 31.38 million tonnes of CO_2e (see Figure 2-10).

Improved cooking solutions generated 95% of EnDev's emission mitigation in 2025, while renewable energy systems accounted for the remaining 5%. Senegal, Nepal, Malawi, Ethiopia, and Tanzania generated particularly strong results, with their cooking portfolios accounting for 62% of the additional mitigation achieved in 2025. Efficient cooking solutions also generate substantial woodfuel savings. In 2025, households using improved cookstoves saved an estimated 573,000 tonnes of woodfuel, reducing pressure on natural resources and helping to prevent land degradation. Together, these results highlight the strong potential of clean cooking to reduce and avoid both emissions and woodfuel consumption, underscoring the need for continued investment.

In 2025, EnDev supported the deployment of 1.24 million additional thermal and electrical energy systems, contributing to the mitigation result. A further 290,000 systems were declared via carbon crediting mechanisms but are not included in EnDev's total to avoid double counting. Ongoing carbon projects by EnDev partners continue to support market development and reduce end-user costs.

The steady rise in annual emission mitigation underscores EnDev's vital contribution to climate action and energy access, demonstrating how targeted interventions can generate both environmental and socio-economic benefits.

Figure 2-10 CO_2e mitigation



3 Advancing EnDev's Strategic Priorities

In 2025, EnDev made strong progress in its strategic priorities – LNOB, gender, higher-tier cooking, partnerships, and knowledge continuity – delivering measurable progress and lasting impact for inclusive energy access.

3.1 Progress in inclusive energy access: LNOB and gender

The implementation of the Multi-Annual Indicative Programming progressed very successfully in 2025, maintaining a strong focus on inclusive energy access, prioritising higher-tier cooking solutions, and the strategic commitment to LNOB contexts, such as extreme poverty and displacement settings.

EnDev's LNOB results in 2025

Aligned with the 2030 Agenda for Sustainable Development, EnDev continued its LNOB and gender-responsive approaches in 2025, with implementation reaching full scale across the portfolio. Building on the foundations laid in previous years, EnDev exceeded several LNOB targets outlined in the Multi-Annual Indicative Programming, reflecting both the maturity of interventions and the expansion enabled through an Update of the Multi-Annual Indicative Programming. Dedicated LNOB activities increasingly focused on reaching customers who are typically underserved by energy access markets, while gender and intersectionality remained embedded as cross-cutting priorities throughout programme implementation.

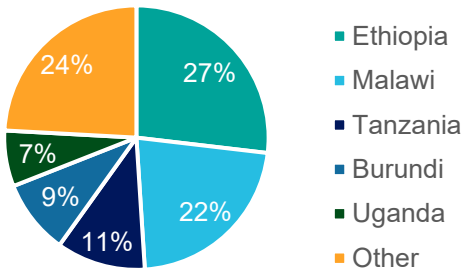
The continued, full-scale implementation of dedicated LNOB interventions in 2025 led to significant progress and target achievement. In 2025 alone, 1,068,910 people were reached from LNOB groups – a 42% increase from 2024.

A cumulative 2,064,800 vulnerable people[5] have gained energy access, representing an over-achievement of 118% against the programme ambition[6] (see Figure 3-2).

Of those results, 208,550 people were reached in Liberia, Malawi, Niger, and Uganda by the Demand-Side Subsidy (DSS) component, reflecting the role of targeted consumer financing mechanisms in expanding energy access for vulnerable populations. Furthermore, EnDev reached 3,530 MSMEs and 630 social institutions operating in LNOB contexts. Overall, results were driven by large contributions from Ethiopia, Malawi, Tanzania, and Burundi (see Figure 3-1).

While 2025 marked a peak year of implementation, additional results are expected to materialise in 2026 as activities continue through the final months of EnDev as a global programme.

Figure 3-1 LNOB groups reached by country since 2023



Total 2,064,800 people

Alongside high-volume country contributions, targeted interventions delivered strong inclusion outcomes at smaller scale. RBF mechanisms and other tailored approaches also enabled country teams to reach vulnerable customer groups, often in challenging market environments.

[5] Individuals may belong to multiple LNOB groups simultaneously. Thus, data are disaggregated by LNOB group, while preventing double-counting of results for individuals who fall into more than one category. For instance, the category "women and girls" (see Figure 3-2) refers specifically to vulnerable female-headed households.

[6] The ambition levels for LNOB and higher-tier cooking refer to programming of EnDev Core, while results comprise as well other funding lines targeting LNOB groups.

In parallel, EnDev consolidated lessons learnt in a comprehensive flagship report on RBF approaches and in EnDev's LNOB framework to be published in 2026. These knowledge products capture operational insights across the portfolio and provide practical guidance for designing and implementing inclusive energy access interventions, reinforcing EnDev's role as a leader in advancing LNOB practice and an innovator in market development approaches.

Implementation in fragile settings

Conflict, fragility, and displacement continued to be prevalent in EnDev's country portfolio and shaped LNOB implementation across several EnDev countries in 2025. Escalating conflicts in Sudan, South Sudan, and eastern Democratic Republic of the Congo drove large-scale displacement across the region, with hundreds of thousands of people seeking refuge in neighbouring EnDev countries such as Rwanda, Burundi, Uganda, Tanzania, and Kenya, while millions remained internally displaced within the Democratic Republic of the Congo itself. This has increased pressure on already vulnerable communities and heightened the need for inclusive energy access solutions.

At the same time, ongoing instability in Ethiopia and a deteriorating security situation across parts of the Sahel region further complicated programme implementation. Against this backdrop, LNOB interventions remained both highly relevant and operationally complex. Delivering energy access in fragile and humanitarian settings requires flexible programme design, strong collaboration with local partners, and dedicated implementation approaches. Despite challenging conditions, EnDev country teams continued to reach vulnerable populations, demonstrating the resilience and adaptability of LNOB programming.

Figure 3-2 People reached in LNOB groups

Burundi **Empowering marginalised communities**

Batwa communities are among the most marginalised groups in Burundi, representing about 1 % of the country's population. They face overlapping challenges linked to ethnicity, extreme poverty, isolation, and limited livelihood opportunities. Under its LNOB focus, EnDev in Burundi deliberately targeted Batwa groups through sensitisation and training in the production of improved cookstoves as an income-generating activity, supporting 22 production workshops with 397 participants.

Building on this, EnDev introduced a community-based transformative approach in three pilot communities in Ngozi and Kayanza provinces. The activities promoted access to employment, education, healthcare, financial services, and gender equality in close collaboration with local authorities and community leaders. Reported outcomes include improved access to jobs, schooling, and financial services, alongside qualitative changes captured through songs and testimonies reflecting greater dignity, self-confidence, and recognition. This initiative demonstrates how intersectional energy interventions can foster economic, social, and gender empowerment simultaneously.

EnDev supports Batwa community members to produce improved cookstoves.

EnDev's gender progress

EnDev made significant progress in advancing its gender ambitions in 2025, consolidating earlier efforts into a systematic, portfolio-wide approach. All 20 EnDev countries now have a Gender Action Plan in place, translating the programme's gender strategy into context-specific actions and responsibilities at the country level. Building on foundations established in previous years, the focus in 2025 shifted towards deepening of gender-transformative practices. Country teams expanded and refined gender activities, with particular emphasis on women's economic empowerment, transforming social norms, and integrating gender considerations into market development and policy-support interventions.

A focus in 2025 was the implementation of ambitious gender-transformative initiatives in partnership with the private sector and financial institutions, highlighted here with two examples:

- **EnDev Malawi** adapted and replicated the "Gender Makes Business Sense" tool to support small energy access enterprises. Companies applied the tool to redesign business models, improve staff retention and expand services to women customers.
- **EnDev Mozambique** introduced a dedicated RBF scheme with a strong gender focus. The call for applications generated high demand from companies seeking to expand services to women end-users and increase women's participation across energy value chains.

In parallel, EnDev country teams expanded gender-responsive communication and awareness activities addressing social norms and household decision-making related to clean cooking and energy use. They refined their targeting of different groups, such as urban and rural populations, and used a mix of digital and community-based channels to reach women and men more effectively. Teams worked with women's associations, schools, and local authorities to integrate gender messages into everyday settings. Participatory approaches such as theatre, storytelling, murals, and school

campaigns were used to encourage reflection on unequal divisions of labour, control over energy assets and decision-making within households.

These activities built on lessons consolidated in 2024 on how to reach rural populations, low-literacy groups, and marginalised communities. They also strengthened the capacity of private-sector and civil-society partners to apply gender equality and social inclusion principles in programme delivery.

In addition to institutional and market-level changes, EnDev's gender-focused interventions also translated into measurable health benefits. Significant impacts on women's well-being are linked to the dissemination of higher-tier clean cooking solutions and improvements in indoor air quality. Since women are typically responsible for cooking in EnDev's intervention contexts, they benefit most from reduced exposure to indoor air pollution. Based on the number of people reached with Tier 3 or higher cooking solutions, it is estimated that 330,000 women and 660,000 young children experienced significantly lower exposure to harmful pollutants such as particulate matter and carbon monoxide because of EnDev interventions. This represents a substantial increase compared to previous years, driven by the strong recent scale-up of higher-tier cooking solutions within the programme.

By advancing gender-transformative approaches, promoting women's economic empowerment and institutionalising gender equality across its operations, EnDev addressed immediate gender disparities while laying the foundation for long-term impact, including tangible improvements in women's health and well-being. The progress made in 2025 demonstrates how the systematic integration of gender considerations can make the energy access sector more equitable and inclusive for both women and men.

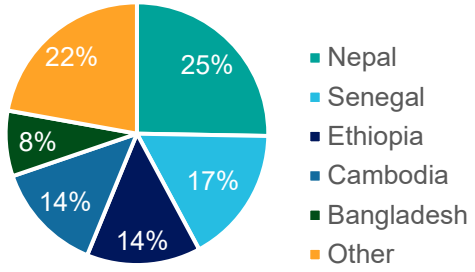
Figure 3-3 Gender achievements of EnDev

3.2 Scaling higher-tier cooking solutions

EnDev's commitment to higher-tier cooking continued the strong upward trend observed in recent years. In 2025 alone, 634,880 people gained access to higher-tier cooking solutions, representing a further substantial increase by over 150% compared to the previous year. Four countries – Nepal, Senegal, Ethiopia, and Cambodia – accounted for almost 70% of the results in 2025 (see also Figure 3-4).

Cumulatively, EnDev has reached 1,658,000 people with higher-tier cooking solutions. This means that EnDev has not only reached its ambition of 1,325,140 people by 2026 one year early but already exceeded it.

Figure 3-4 People with access to higher-tier cooking by country in 2025



Total 634,880 people

The higher-tier cooking technologies (Tier 3 and higher) promoted by EnDev include eCookers, ethanol and biogas stoves, pellet gasifiers, and high performing biomass stoves. Among higher-tier cooking solutions, eCookers have become the most successfully promoted solution, accounting for 74% in 2025. Access to eCooking has increased rapidly in recent years, rising from around 3,000 people in 2020 to 197,450 in 2024 alone and 469,810 in 2025. Thus, Tier 5 eCookers continue to set a remarkable pace with annual growth 137% in 2025, see also Table 2-2 on page 5. Main drivers were Nepal (25%), Senegal (17%), Cambodia (14%), and Ethiopia (14%). In total, EnDev has reached 848,190 people with eCookers. Their uptake is also driven by user preferences for faster, cleaner, and more aspirational cooking, significantly increasing engagement with women-led households and populations affected by conflict.

In addition, Tier 3 stoves – locally produced higher-tier biomass stoves – increased significantly in 2025, largely due to expanded local production, for example in Senegal.

The 2025 progress thus reflects not only quantitative growth in clean cooking, but also clear qualitative shifts in how cooking technologies are deployed, adopted, and scaled in low- and middle-income contexts. It also illustrates EnDev's strategic transition from basic improved cookstoves to higher-tier, low-emission solutions that align well with broader development and climate goals. While deploying higher-tier cooking technologies, EnDev has intensified its focus on reaching marginalised and vulnerable communities, including through the targeted introduction of eCookers in these contexts.

In accelerating the electrification of cooking, EnDev's partnerships have been central to the achievements of the programme. EnDev's steering role in the Global Electric Cooking Coalition (GeCCo) has helped expand the uptake of eCooking beyond pilot stages. GeCCo strengthened coordination among members and supported closer in-country collaboration, specifically in the electrification context of Sierra Leone. Through GeCCo, EnDev and partners also continued to align policy dialogue, market development efforts, and global advocacy around eCooking transitions.

EnDev's progress on higher-tier cooking in 2025 unfolded against a backdrop of growing global momentum for clean cooking. Clean cooking gained prominence across international energy, climate and development agendas, including its elevation within the African Union's Agenda 2063 and growing recognition as a complementary pillar to electricity access under initiatives such as Mission 300. Together, these developments contribute to a more favourable enabling environment for scaling higher-tier cooking solutions, especially as eCooking solutions expand across urban and peri-urban areas and beyond.

Kenya eCooking moves from pilot to scale

In Kenya, eCooking is no longer a niche solution but an increasingly viable everyday option – and EnDev's results show a clear shift from pilot to scale. Between 2022 and 2025, access to eCooking through EnDev-supported interventions grew by 171%, increasing from a pilot with 12,500 to 33,930 people reached in 2025.

This transformation began in 2021, when EnDev launched its first RBF project for eCooking in rural areas, incentivizing companies to enter and expand in a nascent market. At the time, eCooking was virtually unknown with most households relying on wood and charcoal. Yet early results – including strong uptake by companies and clear willingness to pay in Kalobeyei refugee camp – demonstrated that demand existed beyond urban markets.

From a consumer perspective, the drivers are clear: eCooking reduces long-term costs, saves time, and eliminates smoke. By supporting financing models and market development, EnDev helped translate this potential into real uptake – shifting eCooking from a perceived luxury to a practical solution for everyday cooking needs, including in rural and displacement settings.

Building on these market signals, three groups are leading the way hand in hand: the private sector with its innovations, political partners with their commitment to establish political framework and an enabling environment, and EnDev with its cross-country experience. With a national target of reaching at least 10% of households by 2030, Kenya is now scaling what started as a small but catalytic intervention.

Nairobi resident Mary Wanja preparing food in the eCooker.

Read the full story how electricity became an ingredient in Kenya's national cooking transition here.

3.3 Strategic partnerships driving impact

Building on the strong momentum in scaling higher-tier cooking solutions, EnDev's partnerships in 2025 played a key role in deepening impact across priority themes such as eCooking, health, access to finance (see also SME Finance Facilitator, page 11), and the agri-energy nexus. At the same time, these collaborations positioned EnDev's portfolio for its evolving regional focus on Africa in 2026 and beyond, strengthening the programme's impact, knowledge base, and long-standing partner network.

Accelerating eCooking transitions

To further strengthen eCooking (see also Chapter *3.2 Scaling higher-tier cooking solutions*), partnerships in 2025 concentrated on planning, learning, and coalition engagement. A new cooperation with Sustainable Energy for All (SEforALL) focuses on integrated energy planning in Ethiopia with a specific emphasis on eCooking. A joint mission to Ethiopia in June 2025 engaged government institutions, development partners, and local associations to map ongoing initiatives, identify gaps, and clarify practical entry points for clean cooking planning interventions. The partnership aims to embed eCooking within national planning processes by aligning grid development, demand projections, and appliance market development, strengthening the enabling environment for scale.

Health and energy synergies

Health partnerships expanded considerably in 2025 thanks to two new cooperations with the World Bank and the World Health Organization (WHO). Through the World Bank, EnDev supports the establishment of health management information systems in Burundi to strengthen digital oversight, asset management, and budget tracking of energy systems in healthcare facilities.

Through the WHO, EnDev will electrify hospitals and clinics in the Democratic Republic of the Congo, deploying PV systems and devices for maternal and newborn care, immunisation, and basic diagnostics. Long-term operation and maintenance arrangements, including remote monitoring over five years, will ensure long-term reliability.

Energy and agriculture nexus

EnDev formed new partnerships over the course of 2025 at the nexus of energy and agriculture. In September, EnDev participated in the Africa Food Systems Forum in Dakar where its membership in the newly established Agri-Energy Coalition was announced. The coalition's intent is to bring energy and agri-food system actors into a common agenda, strengthening coordination across institutions that typically operate in silos. The coalition promotes the integration of clean energy solutions into agricultural strategies and investment priorities, with a view to accelerating productive use of energy in agri-food value chains and improving the resilience and performance of food systems. For EnDev, joining the coalition provides an additional platform to position energy access interventions – particularly those linked to the productive use of energy – within broader food systems transformation efforts, and to engage partners on pipeline development, and financing.

At the Africa Climate Summit 2, EnDev celebrated two decades of driving energy access across Africa.

Throughout 2025, EnDev continued to engage in flagship regional and international events, using these platforms to strengthen partnerships and facilitate knowledge exchange. Highlights included contributions to the Mission 300 Africa Energy Summit in Tanzania, the SEforALL Global Forum in Barbados, the Eastern Africa Clean Cooking Symposium in Arusha, IRENA Innovation Week in Bonn, and the Africa Climate

Summit in Addis Ababa. At the latter, EnDev marked its 20th anniversary with a reflection event on lessons learned, as well as a dedicated session on African clean cooking transitions.

These engagements highlighted EnDev's enduring partnerships and strengthened networks that advance its mission, demonstrating its role as a trusted convenor turning collaborations into measurable impact in energy access.

Enhancing the enabling environment

In 2025, EnDev started the implementation of the Global Enabling Environment Facility and launched five advisory trajectories in Burundi, Ethiopia, Kenya, Liberia, and Uganda, focusing on quality standards for clean cookstoves, tariff roadmaps, and broader policy support around eCooking.

In parallel, EnDev stepped up its support to national renewable energy associations. which are crucial in shaping policies, regulations, and financial schemes that support sector growth and the uptake of decentralised renewable energy solutions. In 2025, EnDev, through the Global Off-Grid Lighting Association (GOGLA), supported national associations in Malawi and Liberia.

EnDev also continued to back regional dialogue and political commitment. Through support of the Community of Champions, a high-level exchange platform, EnDev strengthened dialogue between governments, the private sector, and development partners on universal energy access in Africa. This support enabled representatives from six EnDev partner countries to actively participate in in-person events, fostering cross-country learning and promoting stronger policy commitment to inclusive energy access.

Stakeholders in the clean cooking space in Liberia.

3.4 Advancing knowledge through monitoring, learning, and innovation

In 2025, EnDev strengthened its evidence base and tested scalable solutions across monitoring, evaluation, and innovation – consolidating two decades of learning while driving forward progress toward inclusive energy access.

Refined monitoring for enduring impact

In 2025, EnDev systematically documented key lessons learnt in its monitoring to inform future programme designs. At the same time, monitoring processes were managed more agilely, with increased flexibility in monitoring and reporting cycles. These approaches were piloted in 2025 to support the gradual phase-out of country portfolios while ensuring continuity of data quality. The experience gained provides a solid foundation for continuing these monitoring and reporting processes into 2026.

Consolidating evidence through evaluation

Building on insights from evaluation reports finalised in 2024, EnDev focused in 2025 on consolidating lessons learnt and strengthening its evidence base.

In October 2025, EnDev launched the evaluation *Insights for Impact Harvesting, Evaluating and Learning*. The evaluation concentrates on EnDev's recent strategic priorities – LNOB, DSS, and higher-tier cooking – and reviews the effectiveness of its market-based approach in strengthening demand, supply, and the enabling environment for sustainable energy markets. Data collection spans the global energy access sector, the EnDev portfolio, and eight country case studies in Cambodia, Laos, Kenya, Liberia, Malawi, Niger, Uganda, and Tanzania.

Launched in October 2025, the evaluation represents a key step in consolidating learning from two decades of implementation. Its results, expected in 2026, will provide evidence for future energy access programmes.

Driving innovation and strategic learning

In 2025, EnDev continued its efforts to test new approaches, generate actionable evidence, and inform both programme strategy and broader sector engagement through its two established learning and innovation formats – the EnDev Innovation Window and the EnDev Learning and Innovation Agenda.

Under the EnDev Innovation Window, EnDev advanced implementation of the six pilot projects launched in late 2024 throughout 2025. Recognising that innovation pilots often require a ramp-up phase before generating robust evidence, the programme extended most projects into 2026 to allow sufficient time for implementation, operational stabilisation, and meaningful data collection. In Bangladesh, an eCooking pilot combined demand-side incentives with referral-based micro-incentives, accelerating household adoption and expanding participation in the clean cooking sector through peer referrals. The pilot exceeded its sales target, with over 2,300 units sold during its implementation. It demonstrated the potential of referral-based approaches to increase market reach and create income opportunities for women and highlighted the importance of complementary awareness and marketing measures.

Nairobi resident Rosemary Lubale walking home with an eCooker she just purchased.

In Kenya and Rwanda, ongoing pilots testing targeted electricity tariffs and smart meter-enabled eCooking solutions have already generated valuable insights on consumption patterns and reached several thousand people in 2025.

In 2025, EnDev also launched five new pilots under the new cycle of the Innovation Window, targeting affordability for low-income households and the productive use of energy for smallholder farmers. These pilots explore innovative delivery and financing models, including Energy-as-a-Service approaches, bundled productive energy use solutions, and integrated digital advisory services, including application of artificial intelligence. Implementation began in late 2025 and will continue through 2026, producing insights to guide future programming and sector engagement. Early implementation focused on effective rollout and stakeholder buy-in, with evidence generation set to intensify through 2026. Across both cycles, 2025 efforts prioritised solid foundations – positioning EnDev to share maturing results via internal learning forums, country-level exchanges, and global thematic platforms.

At a strategic level, the Learning and Innovation Agenda in 2025 focused on setting up the theme *Market perspectives: Navigating the future of energy access* that will be implemented in 2026. This cycle will reflect on the role of development programmes in fostering sustainable energy access markets and advancing the LNOB agenda from an economic perspective – particularly how markets can remain inclusive of low-income and hard-to-reach populations.

Monitoring team verifying continued access and satisfaction of end users with solar home systems.

EnDev's sustained commitment to monitoring, evaluation, innovation, and learning in 2025 not only captured the programme's achievements but also amplified its contributions to global energy access dialogues. These efforts exemplify EnDev's enduring value as a knowledge leader – transforming evidence and experimentation into lasting progress for sustainable, inclusive energy solutions.

3.5 20 years of EnDev: Knowledge continuity and transition

In 2025, EnDev celebrated 20 years of implementation. As the global programme moves toward its conclusion in December 2026, this year served both as a milestone and a bridge to the future – honouring long-standing partnerships and achievements while ensuring that its extensive experience continues to benefit the global energy access community.

Sharing a legacy

Through its communication campaign *Partnerships Power Progress*, EnDev captured results, lessons learnt, voices from partners and donors as well as best practices from over 20 partner countries. Activities ran across EnDev's website, LinkedIn, YouTube, and GIZ communication channels, complemented by in-person events such as the second Africa Climate Summit in Addis Ababa. Overall, the online campaign reached over 1,300 website visits to anniversary-related pages and generated more than 44,000 LinkedIn impressions across 35 posts. Beyond visibility, these activities reinforced EnDev's role as a global learning platform for inclusive, market-based energy transitions.

Building knowledge for the future

Two decades of implementation have yielded an unparalleled body of practical experience spanning EnDev's thematic focus areas – clean cooking and electrification, cross-cutting topics such as RBF, LNOB, and productive use of energy, as well as valuable operational experience related to programme management and country-specific implementation approaches. In 2025, EnDev developed a dedicated concept for knowledge continuity to systematically capture, process and make its knowledge and lessons learned accessible for technical experts, policymakers, donors, and implementing partners. Thus, in 2026, EnDev will release a series of flagship publications on electrification, clean cooking, and RBF, with the RBF report already published.

As a central element of its knowledge continuity efforts, EnDev uses its website (endev.info) as a comprehensive repository of methodologies, lessons, and tools. Over the coming year, the website will be enhanced with an artificial intelligence-based chatbot allowing users to interactively explore EnDev's accumulated knowledge – making 20 years of experience directly usable for practitioners worldwide. This effort not merely serves documentation, but represents a commitment to lasting learning, ensuring that EnDev's insights continue to inspire new solutions for universal energy access.

Completion and continuity: transitioning beyond Asia

In 2025, EnDev successfully concluded its programme implementation in Asia. The phase-out focused on structured handovers, national capacity building, and legacy documentation. Projects in Bangladesh and Nepal, implemented through GIZ, as well as in Cambodia and Laos, implemented through SNV, were completed.

EnDev closing event in Bangladesh.

To ensure a structured and locally anchored phase-out, EnDev worked closely with national governments, implementing partners, and private sector actors. EnDev country teams transferred proven approaches, strengthened local capacities, and captured lessons to guide future energy sector development. Concluding events in Bangladesh, Nepal, and Cambodia (jointly with Laos) brought together government officials, private actors, and development partners to reflect on progress, celebrate achievements, and reinforce partnerships – laying a strong foundation for continued market growth.

EnDev's work in Asia demonstrated the effectiveness of market-based approaches to expanding energy access, particularly in

clean cooking and productive use of energy. In Cambodia and Laos, innovative models such as the Smoke-Free Village approach and government-aligned clean cooking frameworks strengthened local supply chains, stimulated demand, and contributed to long-term market development. In Nepal, EnDev's long-standing engagement contributed to advancing inclusive electrification through support to micro-hydropower systems and grid densification efforts, as well as clean cooking initiatives. In Bangladesh, EnDev supported the development of market-based clean cooking solutions and productive use technologies, including e-mobility. The final phase emphasized collaboration with national institutions to ensure that tools and approaches developed under EnDev continue to inform ongoing rural energy access efforts.

EnDev closing event in Nepal.

The knowledge, tools, and partnerships developed through EnDev's engagement in Asia will continue to shape the programme's broader portfolio and future programming, ensuring that the programme's legacy extends well beyond its operational presence in the region.

Exhibition at the closing event for Cambodia and Laos.

The path ahead: transition beyond 2026

While the current global EnDev programme will conclude in December 2026, the EnDev partnership will continue with a focus on Africa only, anchoring its future in the continent most in need of energy access solutions. In 2025, key foundations were laid to ensure a smooth transition and the continuity of knowledge, partnerships and proven approaches developed over the past two decades.

The year 2025 marked a phase of consolidation and celebration – a recognition of the programme's maturity, resilience, and continued innovation. The year highlighted two decades of practical achievement, proving that EnDev's partnership model and knowledge-driven approach remain cornerstones of global progress toward sustainable and inclusive energy access.

4 Report and Accounts

In 2025, EnDev further strengthened its financial position by securing an additional EUR 1.76 million in funding, including contributions from the EU and RVO as well as interest and exchange-rate adjustments, increasing total available funds through 2026 to EUR 605.86 million

4.1 Overview

In 2025, the year preceding the final implementation year of the global programme of 2026, EnDev's total funds and expenditures evolved as follows: EnDev was commissioned with an additional EUR 1.76 million, including interest and exchange-rate fluctuation adjustments, and further contributions from the EU and RVO. As previously reported, commissioned funds also increased in the beginning of 2025 by EUR 17 million that DGIS already pledged in 2023 for the year 2026. With these additions, EnDev's total available funds through the end of 2026 amount to EUR 605.86 million, of which EUR 605.51 million have already been allocated.

Expenditures in 2025 reached EUR 55.13 million, which is above the three-year annual average of EUR 44.74 million. By the end of the year, total expenditures stood at EUR 556.93 million, leaving an allocated amount of EUR 48.6 million available. Of this, EUR 31.8 million are designated for planned core activities under the last Multi-Annual Indicative Programming, and EUR 16.8 million for co-financed activities until the respective co-financing contracts conclude.

Table 4-1 Global budget and funding

Allocation of total budget	in EUR
Allocated to country projects	530,172,000
Allocated to programme management level	75,335,000
Total allocated budget	**605,507,000**
Total available funds incl. BMZ commission as of March 2026	606,208,162
Remaining funds	**701,162**

4.2 Funds

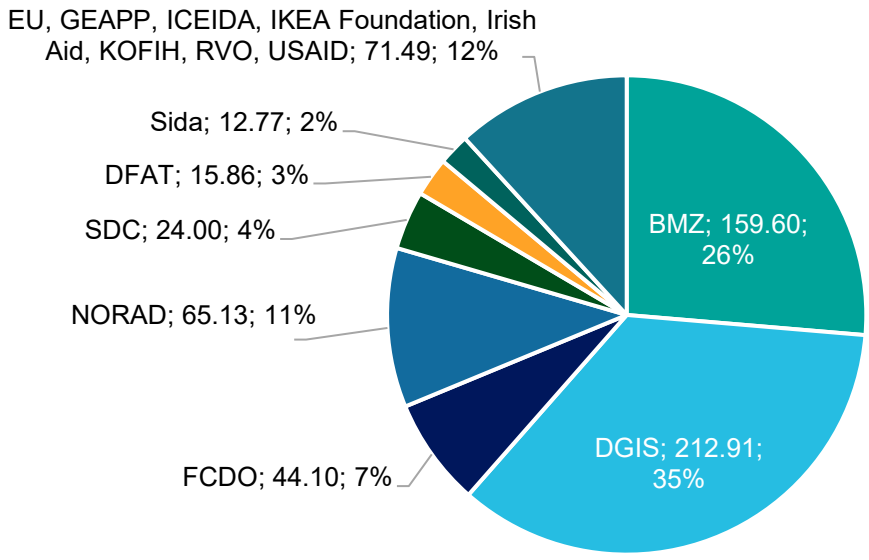
As of end 2025, BMZ had commissioned the amount of EUR 605.86 million. Table 4-2 and Figure 4-1 show the breakdown of commissioned funds by donor.

Table 4-2 Funds by donor (in EUR)

Donors	2023	2024	2025
BMZ	153,095,220	159,595,220	159,595,220
SDC	22,379,190	23,893,218	23,995,689
DFAT	15,858,077	15,858,077	15,858,077
DGIS	195,908,737	195,908,737	212,908,737
FCDO RBF	42,054,980	42,054,980	42,054,980
Norad (MFA)	64,921,307	64,921,307	65,134,558
Sida	12,774,794	12,774,794	12,774,794
EU	36,020,014	36,020,014	37,270,014
FCDO Bangladesh	2,049,360	2,049,360	2,049,360
GEAPP	3,760,000	3,760,000	3,760,000
Iceland	1,715,000	1,715,000	1,762,000
IKEA Foundation	8,000,000	8,000,000	8,000,000
Irish Aid	3,947,475	3,947,475	3,947,475
KOFIH	684,000	684,000	684,000
RVO	12,981,773	12,981,773	13,131,551
USAID	2,938,407	2,938,407	2,938,407
Total	**579,088,335**	**587,102,363**	**605,864,863**

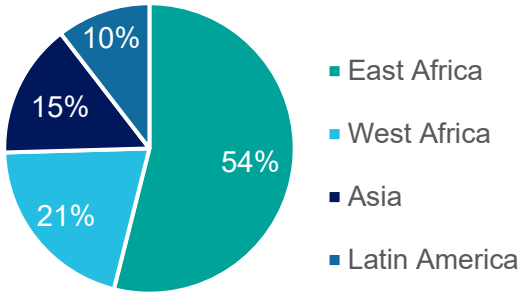
Note: Differences due to rounding are possible.

Figure 4-1 Funds by donor (in million EUR)



In 2025, EnDev's geographic focus had effectively shifted towards sub-Saharan Africa, as highlighted in Chapter 2. This is also reflected in the regional distribution of funds, with sub-Saharan Africa's accounting for 75% of the total (54% in East Africa and 21% in West Africa), see Figure 4.2.

Figure 4-2 Funds by region since 2009



Of the total funds, 73% were non-earmarked and thus available as core financing for the programme, while 27% of funds were earmarked. The earmarked proportion consists of co-financings of bilateral co-financings and soft earmarking for technologies and/or countries, and funding of FCDO for RBF activities, see Figure 4-3.

See Table 4-3 on the next page for an updated list of the funds according to the latest BMZ commission, as well as available funds, expenditures, and income.

Figure 4-3 Funds by type

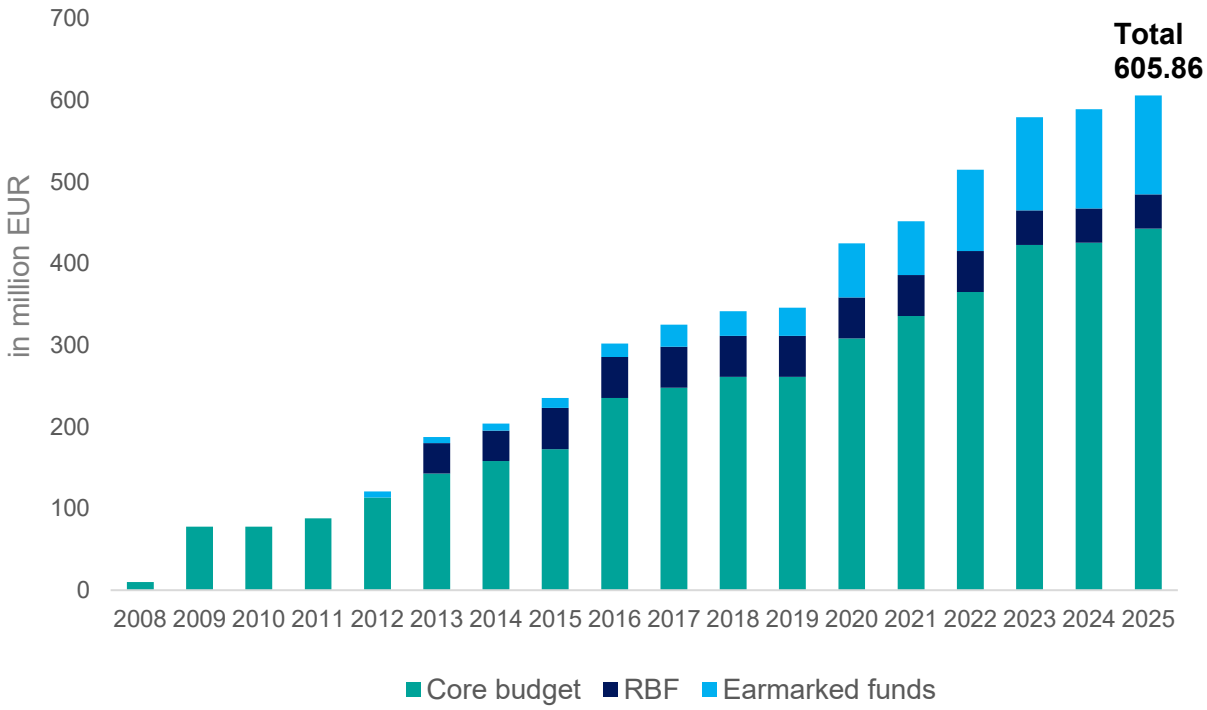


Table 4-3 Funds according to BMZ commission, available funds, expenditures, and income (in EUR)

Donors	Funds according to BMZ commission	Total available funds[a)]	Expenditures as of 12/2025	Income as of 12/2025
Consultative Group				
BMZ	159,595,220	159,595,220	154,541,247	154,541,247
SDC	23,995,689	23,997,986	23,223,398	23,997,988
DFAT	15,858,077	15,858,077	15,858,077	15,858,077
DGIS	212,908,737	212,908,737	182,635,082	205,408,737
FCDO RBF	42,054,980	42,054,980	42,386,297[b)]	42,054,979
Norad (MFA)	65,134,558	65,253,632	59,885,339	65,253,633
Sida	12,774,794	12,774,794	12,841,907[b)]	12,774,794
Total funds of Consultative Group	**532,322,056**	**532,443,427**	**491,371,347**	**519,889,455**
Additional donors				
EU	37,270,014	37,270,014	33,046,347	36,188,802
FCDO Bangladesh	2,049,360	2,049,360	2,038,615[b)]	2,049,360
GEAPP	3,760,000	4,075,090	2,113,023	3,307,337
Iceland	1,762,000	1,762,000	1,746,793	1,771,452
IKEA Foundation	8,000,000	8,000,000	8,117,108[b)]	8,000,000
Irish Aid	3,947,475	3,947,475	3,985,377[b)]	3,947,475
KOFIH	684,000	684,000	697,334[b)]	684,000
RVO	13,131,551	13,131,551	10,871,426	11,963,051
USAID	2,938,407	2,845,245	2,942,801[b)]	2,938,407
Total funds of additional donors	**73,542,807**	**73,764,735**	**65,558,822**	**70,849,833**
Total	**605,864,863**	**606,208,162**	**556,930,169**	**590,739,338**

Note: Differences due to rounding are possible.

a) Exchange rate gains from contributions in foreign currencies (Swiss franc (CHF), British Pound (GBP), Norwegian Krone (NOK), US Dollar (USD)), and accrued interest resulted in an additional EUR 0.343 million. This increased EnDev's total funds to EUR 606.208 million, compared to the commissioned amount of EUR 605.864 million.

b) Expenditures to be corrected at the end of the project.

4.3 Expenditures and income by donor

EnDev's expenditures, income, and funds by donor, by type, and by country are presented in the following tables.

Table 4-4 Expenditures by donor (in EUR)

	2009–2022	2023	2024	2025	Total
BMZ	130,386,874	7,064,098	11,829,344	5,260,931	154,541,247
SDC	16,660,392	4,743,861	1,804,351	14,794	23,223,398
DFAT	15,858,077	0	0	0	15,858,077
DGIS	119,408,096	14,633,219	10,864,376	37,729,390	182,635,081
FCDO RBF	42,710,025	-41,346	229	-282,610	42,386,297
Norad (MFA)	52,395,881	-135,676	7,378,133	247,000	59,885,339
Sida	12,864,310	-22,403	0	0	12,841,907
EU	16,558,668	4,689,403	7,246,860	4,551,416	33,046,347
FCDO Bangladesh	2,038,672	-57	0	0	2,038,615
GEAPP	0	455,678	326,168	1,331,177	2,113,023
Iceland	719,417	122,465	222,998	681,913	1,746,792
IKEA Foundation	3,423,684	1,506,247	1,308,423	1,878,753	8,117,108
Irish Aid	4,045,658	-72,361	3,696	8,384	3,985,377
KOFIH	704,404	-68,063	61,024	-33	697,332
RVO	2,472,707	2,282,901	2,472,151	3,643,668	10,871,426
USAID	2,646,507	118,155	294,382	65,757	2,942,801
Total	**422,711,372**	**35,276,121**	**43,812,135**	**55,130,540**	**556,930,169**

Note: Differences due to rounding are possible.

Table 4-5 Income by donor (in EUR)

	2009–2022	2023	2024	2025	Total
BMZ	130,386,874	7,064,098	11,829,344	5,260,931	154,541,247
SDC	18,732,296	2,099,958	2,091,968	1,073,766	23,997,988
DFAT	15,858,077	0	0	0	15,858,077
DGIS	123,658,737	25,000,000	25,750,000	31,000,000	205,408,737
FCDO RBF	42,054,979	0	0	0	42,054,979
Norad (MFA)	52,199,308	8,494,372	2,342,743	2,217,210	65,253,633
Sida	12,774,794	0	0	0	12,774,794
EU	20,885,156	4,493,623	8,086,694	2,723,328	36,188,801
FCDO Bangladesh	2,049,360	0	0	0	2,049,360
GEAPP	2,822,467	0	0	484,870	3,307,337
Iceland	715,000	1,000,000	0	56,452	1,771,452
IKEA Foundation	8,000,000	0	0	0	8,000,000
Irish Aid	3,947,475	0	0	0	3,947,475
KOFIH	684,000	0	0	0	684,000
RVO	4,794,273	2,609,778	2,322,000	2,237,000	11,963,051
USAID	2,963,705	-25,298	0		2,938,407
Total	**442,526,501**	**50,736,531**	**52,422,749**	**45,053,557**	**590,739,338**

Note: Differences due to rounding are possible.

Table 4-6 Funds and expenditure by type and country since 2009 (in EUR)

EnDev	Funding	Expenditures
EnDev programme total available funds	**606,208,162**	**556,930,169**
Total funding	**605,507,000**	
Remaining available funds	**701,162**	
Programme management and cross-cutting activities	**Funding**	**Expenditures**
Total	**75,335,000**	**63,173,426**
Management, monitoring, backstopping, learning, etc.	50,560,000	43,213,812
Globally managed country activities (SCCIF, SIINC, IKEA, etc.)	13,025,000	13,113,535
Globally managed extra activities (refugees, RBF preparations, etc.)	4,000,000	3,950,878
Innovation impact RBF	7,750,000	2,895,201
Country activities	**Funding**	**Expenditures**
Total	**428,155,000**	**391,938,155**
Bangladesh	28,703,000	28,531,577
Benin	31,094,000	25,598,998
Burundi (from 01/2021)	1,725,000	1,493,397
Cambodia	6,891,000	6,368,908
Democratic Republic of the Congo	2,958,000	2,677,623
Ethiopia	54,810,000	51,579,403
Kenya	39,700,000	37,826,292
Laos	3,780,000	3,855,996
Liberia (with Guinea until 12/2023)	16,800,000	15,361,896
Madagascar	2,825,000	2,546,742
Malawi	29,030,000	24,471,519
Mali	20,805,000	18,330,545
Mozambique	42,443,000	40,339,682
Nepal	14,745,000	14,410,195
Niger	5,155,000	1,793,800
Rwanda (incl. Burundi until 12/2020)	34,824,000	32,260,363
Senegal	33,337,000	31,010,091
Sierra Leone	10,600,000	8,286,590
Tanzania	16,565,000	16,095,407
Uganda	31,365,000	29,099,129
Completed activities	**Funding**	**Expenditures**
Total	**102,017,000**	**101,818,587**
Bolivia	20,000,000	19,986,823
Burkina Faso	7,020,000	7,016,450
Cambodia (until 11/2019)	3,060,000	3,059,464
Central America (Guatemala, Honduras, Nicaragua)	17,760,000	17,757,166
Ghana	3,665,000	3,665,688
Indonesia	16,425,000	16,424,442
Mongolia	496,000	495,046
Peru	17,125,000	17,120,742
Vietnam	4,500,000	4,501,766
RBF 3: Mozambique, Rwanda, Uganda	2,918,000	2,909,779
RBF 3: Bangladesh, Kenya, Rwanda, Tanzania, Uganda	5,530,000	5,505,260
RBF 3: Kenya, Tanzania, Uganda	1,575,000	1,575,947
ProCEAO (EU West Africa: Burkina Faso, Benin, Senegal)	1,947,000	1,800,014

Note: Differences due to rounding are possible.

5 Annexes

A. Results overview 2025
B. Overview of EnDev country
C. Detailed country project profiles and implementation status

A. Results overview 2025

Table A-1 and Table A-2 provide an overview of the main quantitative results of EnDev by the end of 2025.

Table A-1 Access to energy results

		2024 total	Addi-tional in 2025	2025 total
People [million]	People with access to modern energy	34.0[7]	2.8	**36.7**
	People with access to thermal energy	26.3[7]	2.4	28.6
	People with access to electrical energy	7.8	0.3	8.1
Social institutions	Social institutions with access to modern energy	35,510[7]	1,550	**37,060**
	Schools with access to modern energy	20,800[7]	390	21,160
	Health centres with access to modern energy	2,880	220	3,100
MSMEs	MSMEs with access to modern energy	114,530[7]	11,940	**126,460**
Value for money	Expenditure efficiency per year [in EUR]	18.9	-	**20.0**

Table A-2 Climate and employment results

		2024 only	2025 only
Employment effects[8]	People with jobs total	33,220[7]	**35,900**
	People with jobs in cooking technology production	5,030[7]	5,050
	People with jobs in cooking technology distribution	1,210[7]	1,700
	People with jobs in solar system distribution	900	630
	People with jobs in mini-grid operation	6,080	6,180
	People with jobs in MSMEs	20,010[7]	22,340
Climate	Annual CO_2e mitigated [in million tonnes]	3.04[7]	**3.21**
	CO_2e mitigated in total [in million tonnes]	28.17[7]	**31.38**

Note: Differences due to rounding are possible.

[7] Figures have been updated to incorporate Benin's retroactive reporting for 2024.
[8] Employment effects are reported as „people with employment". Until 2019 full-time-equivalents were used.

B. Overview of EnDev country projects, financial allocations, and technologies

Table B-1 Overview of ongoing country projects

Country	Lead political partner	Project duration		Funding (in million EUR)	Planned outcomes (in million people)
		start	end		
Bangladesh	Ministry of Power, Energy and Mineral Resources	06/09	12/25	28.703	4.234
Benin	Ministère de L'Énergie, de l'Eau et des Mines	10/09	12/26	31.094	1.637
Burundi	Focus on local private sector	01/21	12/26	1.725	0.305
Cambodia	Ministry of Mines and Energy (MME)	03/15	12/25	6.891	0.075
Democratic Republic of the Congo	Ministère des Affaires Étrangères	12/19	12/26	2.958	0.179
Ethiopia	Ministry of Water and Energy (MoWE)	01/10	12/26	54.810	3.088
Kenya	Ministry of Energy and Petroleum (MoEP)	04/09	12/26	39.700	7.620
Laos	Ministry of Science and Technology (MoST)	03/15	12/25	3.780	0.291
Liberia[9]	Ministry of Mines and Energy	05/12	12/26	16.800	0.042
Madagascar	Ministère de l'Énergie et des Hydrocarbures	12/12	12/26	2.825	1.041
Malawi	Ministry of Energy and Mining	12/12	12/26	29.030	2.378
Mali	Direction Nationale de l'Énergie / Ministère de l'Energie et de l'Eau	04/09	12/26	20.805	0.219
Mozambique	Ministry of Mineral Resources and Energy	10/09	12/26	42.443	1.127
Nepal	Ministry of Energy, Water Resources and Irrigation	05/09	12/25	14.745	0.752
Niger	Ministère de l'Économie et des Finances	07/22	12/26	5.155	0.004
Rwanda	Ministry of Infrastructure (MININFRA)	10/09	12/26	34.824	0.351
Senegal	Ministère de l'Énergie, du Pétrole et des Mines	04/09	12/26	33.337	3.002
Sierra Leone	Ministry of Energy	07/17	12/26	10.600	0.041
Tanzania	Ministry of Energy	12/12	12/26	16.565	2.605
Uganda	Ministry of Energy and Mineral Development (MEMD)	04/09	12/26	31.365	2.377

[9] With Guinea until 12/2023.

Table B-2 Management and thematic activities

Topic and/or country		Duration		Funding (in million EUR)
		start	end	
Global level	Management, monitoring, backstopping, learning, etc.	01/09	12/26	50.560
Global level	Globally managed country activities (SCCIF, SIINC, IKEA[10], DSS-management at headquarter-level, etc.)	08/18	12/26	13.025
Global level	Globally managed extra activities (refugees, preparation of RBFs, etc.)		12/26	4.000
Global level	Innovative impact fund		12/26	7.750
Total				**75.335**

[10] Lead political partners for IKEA-funded activities in the countries are: Ethiopia: Ministry of Water and Energy (MoWE); Kenya: Ministry of Energy; Uganda: Ministry of Energy and Mineral Development (MEMD). The lead political partners for SCCIF and SIINC in Kenya and Uganda are the same ministries as listed for IKEA Foundation in Kenya and Uganda.

Table B-3 Countries and technologies in 2025

	Thermal energy		Electrical energy		
	Biomass technologies	**Clean fuel technologies**	**Off grid solar systems**	**Mini-grids / Nano-grids**	**Grids**
	All biomass technologies across Tiers 1–3, incl. pellet gasifier	All technologies using alternative fuels (e.g. ethanol, biogas, electricity) classified as Tier 4/5	Including Solar Home Systems and Pico PVs		
Bangladesh	●	● (S)			
Benin	● (R)	(R)	●	●	
Burundi	●	●			
Cambodia		● (S)			
Democratic Republic of the Congo	●	●			
Ethiopia	●	● (S)	●		
Kenya	● (P)	● (S)	●		
Laos	●	●			
Liberia	●		●		
Madagascar	●	●			
Malawi	●	●[x]	●		
Mali	● (R)	● (S)	●	●	
Mozambique	●	●	●		
Nepal		●		●	●
Niger	●	(S)	●		
Rwanda	●	●			●
Senegal	● (P) (R)	● (R)	●	●	●
Sierra Leone	● (R)	(R)	●	●	
Tanzania	●	●			
Uganda	●	● (S)	●		

X = includes solar water heaters

Activities that are implemented as part of an associated project are designated by the symbols:

- (P) for *Promotion of climate-friendly cooking: Kenya and Senegal*
- (R) for *Regional Clean Cooking Action for West Africa* (ReCCAWA)
- (S) for *Strengthening the Entrepreneurial Ecosystem for Clean Cooking* (SEE-CC)

C. Detailed country project profiles and implementation status

Ongoing projects

- Benin *page 39*
- Burundi *page 41*
- Democratic Republic of the Congo *page 43*
- Ethiopia *page 45*
- Kenya *page 47*
- Liberia *page 49*
- Madagascar *page 52*
- Malawi page 54
- Mali *page 57*
- Mozambique *page 59*
- Niger *page 61*
- Rwanda *page 64*
- Senegal *page 66*
- Sierra Leone *page 68*
- Tanzania *page 70*
- Uganda *page 72*

Phased out projects

- Bangladesh *page 76*
- Cambodia *page 79*
- Laos *page 82*
- Nepal *page 85*

Click on the country name to go directly to the respective country sheet.

Note that the country targets shown reflect the targets of the EnDev core programme, while the presented results may include results of co-financed projects within the respective country.

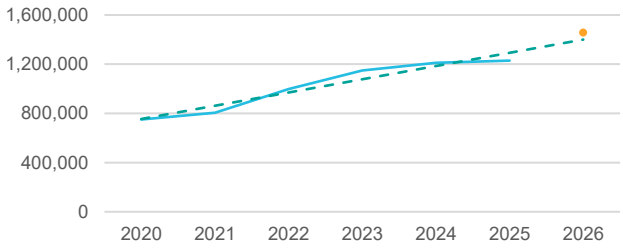
Benin

Country facts	
Population	14.5 million
Human Development Index	Rank 173 / Index 0.515
UN Classification	Least developed country
Access clean cooking	6%
Access electricity	57%

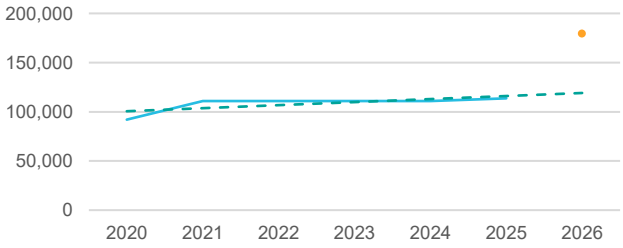
Project facts	
Project period	10.2009 – 12.2026
Budget	EUR 31,094,000
Core funding	EUR 26,094,00[11]
Earmarked	EUR 5,000,000
Average annual turnover of the last three years	EUR 1,723,924
Implementing organisation	GIZ
Lead political partner	Ministère de l'Énergie, de l'Eau et des Mines

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	1,228,900	1,457,200
People: Electricity	113,600	179,400
Social institutions	320	826
Micro, small- and medium-sized enterprises	2,525	2,818

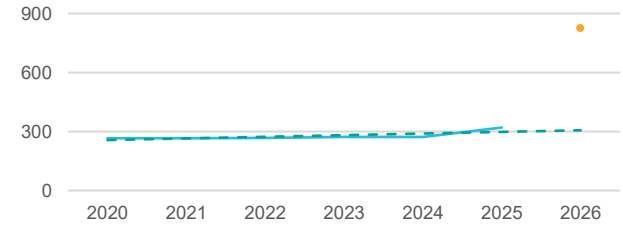
People with access to clean cooking



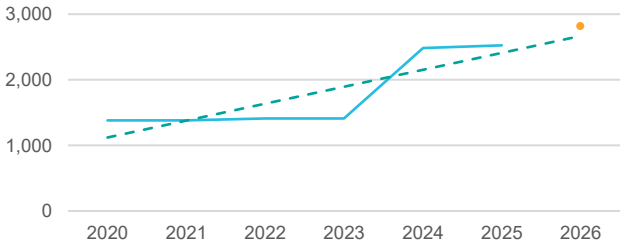
People with access to electricity

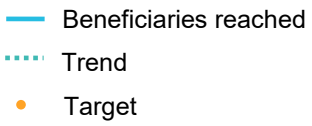


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





[11] Incl. FCDO RBF

Benin

From capacity to capital: Advancing solar and clean cooking markets in Benin

Background information

Since 2009, EnDev Benin has actively supported the improved cookstove market with technical assistance to producers and distributors. In 2021, the programme shifted its approach towards further professionalisation of commercial networks sustainability in the clean cooking market. In 2014, EnDev Benin expanded into the solar energy sector, fostering market development through results-based financing and capacity-building initiatives for companies, focusing since 2021 on quality assurance and strengthening rural supply chains, aiming to build consumer confidence in solar products and explore new market niches.

With co-financing of the European Union, EnDev Benin promotes household stoves and solar products, including innovations in clean cooking technologies, advancing the certification of solar companies, and regulating solar e-waste management.

Progress made in 2025

In the solar sector, the project enhanced access to finance for decentralised renewable energy solutions. By joining forces with the GET.invest EDGE programme, EnDev Benin supported a domestic financial institution develop tailored financing mechanisms for decentralised renewable energy. Additionally, microfinance institutions were trained in cooperation with the Professional Association of Decentralised Financial Systems of Benin (APSFD Benin), strengthening their capacity to evaluate and finance solar investments for households and enterprises.

In the clean cooking sector, a comprehensive support package was developed for local producers and distributors of improved cookstoves to strengthen their technical, organisational and commercial capacities. The package combines tailored business training with targeted communication and marketing support.

Furthermore, infrastructure upgrades and equipment improvements for successful stove production centres were elaborated to further increase productivity. Many of these production units are in remote northern areas affected by a fragile security context, where their products directly benefit the vulnerable population groups.

Apart from that, an improved mobile cookstove model for productive use of energy, adapted to local needs, was developed and will be piloted in restaurants in close cooperation with the Association of Women Restaurateurs of Benin.

Capacity development for solar technicians in solar irrigation

Solar water pumps are a mature and widely available technology in Benin. However, market development is still limited. Many service providers lack the capacity to design irrigation systems that are appropriately adapted to clients' needs and to the local water and energy resources.

In collaboration with the Interprofessional Association of Renewable Energy Specialists in Benin (AISER), EnDev Benin therefore launched a tender for a specialized training on the Solar Irrigation Toolbox. A total of 25 trainees were selected for an advanced training programme on solar irrigation system design, conducted by the solar energy training centre Energy Generation based in Lomé, Togo. Thereby, it fostered sub-regional learning and professional exchange and strengthened the role of AISER as a service provider to its members.

As a next step, EnDev Benin will conduct a dedicated training for experts from microfinance institutions on assessing the economic viability of solar irrigation systems.

Burundi

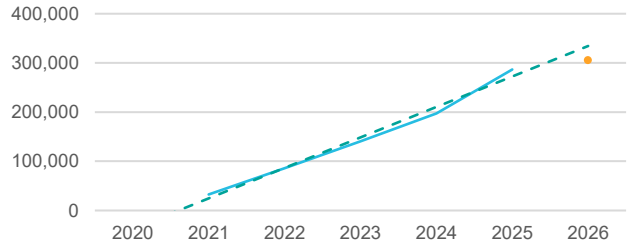
Country facts	
Population	14.0 million
Human Development Index	Rank 187 / Index 0.439
UN Classification	Least developed country
Access clean cooking	N/A
Access electricity	12%

Project facts	
Project period	01.2021 – 12.2026
Budget	EUR 1,725,000
Core funding	EUR 1,725,000
Earmarked	EUR 0
Average annual turnover of the last three years	EUR 368,134
Implementing organisation	AVSI
Lead political partner	Focus on local private sector

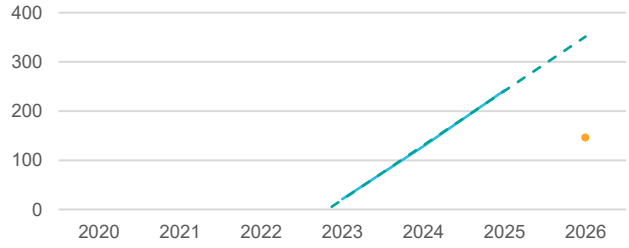
Achievements in energy access

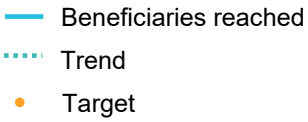
Target group	Reached	Target
People: Clean cooking	286,600	305,000
People: Electricity	0	0
Social institutions	0	0
Small- and medium-sized enterprises	242	146

People with access to clean cooking



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





Burundi

Empowering vulnerable communities through clean cooking

Vulnerable youth learning production of improved cookstoves techniques, ©AVSI/Ntaraka Gustave 2025

Background information

In Burundi, EnDev supports local producers of the "Biikigiti" improved cookstoves to strengthen their businesses and ensure the sustainable supply of the stoves nationwide. This supports national goals for poverty reduction and environmental protection. As part of this strategy, EnDev actively engages young unemployed people—particularly women—as well as discriminated Batwa communities, Congolese refugees, and persons with disabilities in the production and marketing of improved cookstoves. Since 2021, EnDev Burundi has been implemented by the AVSI Foundation in collaboration with local authorities, non-governmental organisations, and private sector actors. In parallel, partnerships with local media have been established to reinforce clean cooking awareness campaigns through targeted advertisements and radio broadcasts. Moreover, producers were supported in obtaining loans by participating in training sessions on savings, credit management and repayment of instalments.

Progress made in 2025

In 2025, the project further strengthened its support for vulnerable groups, with a particular focus on Batwa communities and persons living with disabilities. To better achieve its mission, EnDev introduced a community-transformative approach to promote the well-being and socio-economic inclusion of these groups. This approach has five pillars: access to employment, healthcare, education, and financial services, plus gender equality.

As a result of these efforts, 330 people received training in sales of improved cookstoves (53% of whom were women); 165 families gained access to healthcare; 314 children received school materials; and 13 savings and credit groups were established, enabling 104 members to access small loans to meet their daily needs. Beneficiaries warmly welcomed this approach, expressing appreciation for the focus on helping them reach self-reliance.

Prisca Kotora, Batwa widow and improved cookstove producer:

"I used to live in extreme poverty, without financial means or support. Through the production of improved cookstoves and sales, I earn an income, my children easily receive school materials, and I'm able to buy goats thanks to a loan from our savings and credit group. My entire family now has medical coverage."

In addition to these achievements, the project created 8 new production workshops and continues to provide technical assistance to previously supported producers and sellers. These achievements will be further consolidated during the first half of 2026.

A new path forward

Liévin Mugishawimana grew up in a poor rural family in Bujumbura province. When he was 15, a severe accident resulted in the amputation of his left leg - changing the course of his life and casting doubt on his future. With limited financial resources and no educational opportunities, Liévin struggled to see a path to his dream of becoming an entrepreneur. Despite these challenges, he was determined to persevere. His engagement in community activities led him to the Kiganda Vocational Centre for Persons with Disabilities, where he received professional training designed to equip young people with disabilities with practical skills for independent livelihoods. During an awareness session organized by the EnDev, Liévin attended a Biikigiti improved cookstove demonstration and learned about their benefits for vulnerable households.

Inspired by their impacts and by the opportunity for meaningful work, he chose improved cookstove production as a pathway to revive his long-held entrepreneurial aspirations. Today, with solid technical skills in improved cookstove production and marketing, Liévin is preparing to open his own production workshop in his home province. His ambition goes beyond personal success—he aims to motivate and support other young persons with disabilities, helping them recognize their potential and the opportunities available for their own self-development.

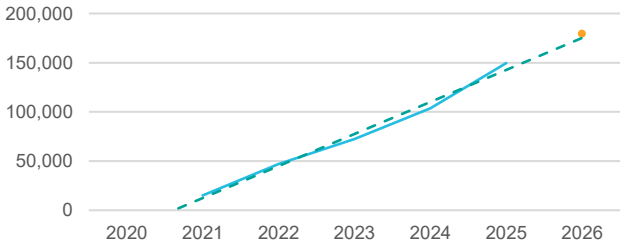
Democratic Republic of the Congo

Country facts	
Population	109.3 million
Human Development Index	Rank 171 / Index 0.522
UN Classification	Least developed country
Access clean cooking	5%
Access electricity	22%

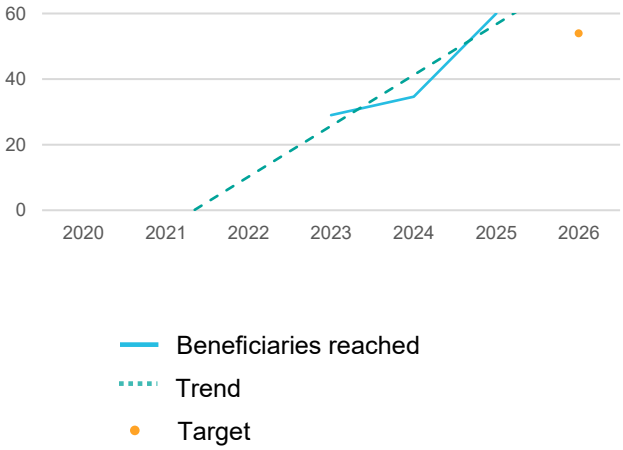
Project facts	
Project period	12.2019 – 12.2026
Budget	EUR 2,958,000
Core funding	EUR 2,958,000
Earmarked	EUR 0
Average annual turnover of the last three years	EUR 513,411
Implementing organisation	AVSI
Lead political partner	Ministère des Affaires Étrangères

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	149,600	179,400
People: Electricity	0	0
Social institutions	0	0
Small- and medium-sized enterprises	60	54

People with access to clean cooking



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity



Democratic Republic of the Congo

Expanding clean cooking and energy access in crisis-affected areas

Returnees receiving their improved cook stove
©AVSI/Sylvain Masudi 2025

Background information

Since 2019, EnDev has been active in the eastern Democratic Republic of the Congo—a low-income region—focusing on Idjwi Island and the cities of Bunia, Goma, Bukavu, Uvira, and Kalemie. The area has one of the lowest electricity access rates globally[12] and continues to experience severe political instability and armed conflict. In 2025, eastern Democratic Republic of the Congo recorded over 5.3 million internally displaced people and more than 3 million returnees, including many forced to return after displacement sites were dismantled, adding pressure on already fragile communities.[13] Over 90% of the rural population is dependent on wood and charcoal for cooking, although the region has a severe level of deforestation. Charcoal is expensive and often illegally produced in protected forest areas. EnDev fosters sustainable development and improved energy access by promoting cleaner and more efficient cook stoves and by supporting small businesses in the productive use of energy on Idjwi Island.

Progress made in 2025

In 2025, persistent insecurity across eastern Democratic Republic of the Congo continued to reshape local market dynamics and energy access needs. To address the growing household demand, EnDev supported three new improved cook stove producers (two in Uvira and one in Bunia). Additionally, four coaching sessions were delivered for existing producers—one in Bukavu, two in Bunia and one in Kalemie—focusing on strengthening production techniques and improving product quality. To expand market reach, EnDev also supported the creation of 189 new points of sale, enabling wider distribution of improved cook stoves across targeted cities and rural-urban hubs. In parallel, the project supported 670 returnee households by providing improved cook stoves at a subsidized price, helping them reduce reliance on costly, unsustainable fuels. A further 230 returnee households are expected to be reached at the beginning of 2026.

In Goma, responding to very high charcoal prices and reliable electricity supply from renewable “metrogrid” utilities, EnDev also promotes electric cooking. A total of 42 households received higher-tier cooking solutions through a pilot. Participating households were assigned to one of four groups: the first received electric pressure cookers, the second single induction hobs, the third double induction hobs, and the fourth a combination of single induction hobs and electric pressure cookers. This grouping enabled the project to evaluate the affordability and usability of each technology, as well as their potential to replace traditional household cooking practices.

Under the productive use of energy component on Idjwi Island, EnDev continued to support small- and medium-sized enterprises through training and the provision of electric appliances, helping entrepreneurs increase productivity and diversify income sources. These efforts reinforce local value chains, improve livelihood opportunities, and foster sustainable energy access in one of the most challenging humanitarian environments in sub-Saharan Africa.

A small stove, a new change

After years of displacement, Ndamubuya Kataba, 46-years-old, returned to Bweremana determined to rebuild his life, despite living with a disability and facing daily challenges. One of the first positive changes came through EnDev, which enabled him to obtain an improved cook stove at an affordable, subsidized price.

Before this support, Ndamubuya spent most of his income on charcoal, or cooked on a three-stone fire, pushing him into the forest to gather firewood, which is dangerous due to militants and physically onerous.

Today, thanks to his new stove, he spends less on charcoal, cooks without smoke, and keeps his family healthier. Most importantly, he no longer has to endanger himself just to prepare a meal. For Ndamubuya, this simple, affordable tool has become a symbol of renewed safety, dignity, and hope.

[12] Only 1% in rural zones, World Bank (2023)
[13] https://humanitarianaction.info/document/global-humanitarian-overview-2026/article/democratic-republic-congo-4

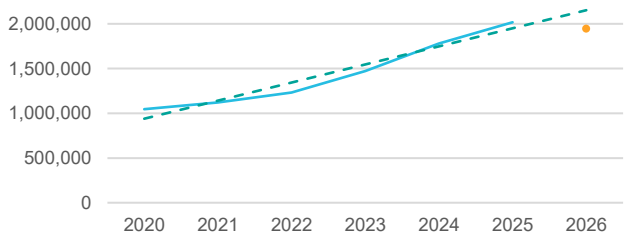
Ethiopia

Country facts	
Population	132.1 million
Human Development Index	Rank 180 / Index 0.497
UN Classification	Least developed country
Access clean cooking	7%
Access electricity	55%

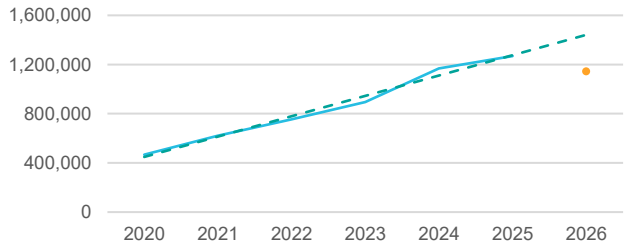
Project facts	
Project period	01.2010 – 12.2026
Budget	EUR 54,810,000
Core funding	EUR 35,669,599[14]
Earmarked	EUR 19,140,401
Average annual turnover of the last three years	EUR 3,445,335
Implementing organisation	GIZ, SNV
Lead political partner	Ministry of Water and Energy (MoWE)

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	2,017,400	1,944,000
People: Electricity	1,268,900	1,144,000
Social institutions	4,955	7,899
Micro-, small-, and medium-sized enterprises	15,775	18,338

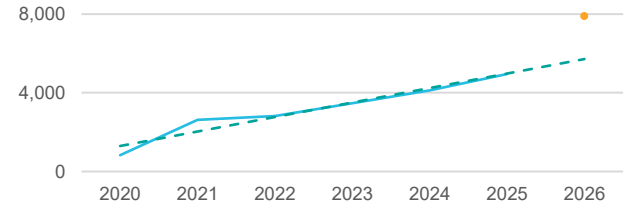
People with access to clean cooking



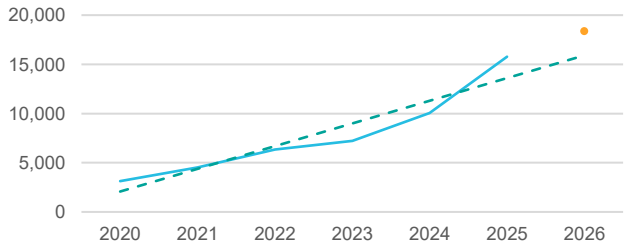
People with access to electricity

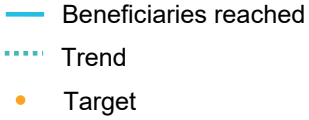


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





[14] Incl. FCDO RBF

Energising change: Clean energy for rural Ethiopia

Background information

Ethiopia has vast renewable energy potential, yet only 55% of the population has electricity access, limiting economic growth and social development. Rural communities also lack clean cooking technologies - over 90% rely on unsustainable charcoal or firewood, leading to deforestation, soil erosion, and indoor air pollution.

EnDev is a well-established programme in Ethiopia, with interventions covering four key areas:

- Energy-efficient and improved cookstoves
- Higher-tier cookstoves including eCooking
- Stand-alone solar home systems
- Community-led off-grid electrification

The programme provides technical and business support to cookstove manufacturers and solar retailers, while fostering market growth for productive use of energy. EnDev also works with government utilities to accelerate rural electrification and supports the deployment of solar systems in social institutions such as schools and health centres.

Progress made in 2025

In 2025, EnDev Ethiopia advanced sustainable energy access through initiatives in clean cooking, eCooking, electrification, and productive use of energy. These activities were implemented with government, humanitarian, and private-sector partners. Institutional clean cooking interventions were also expanded in school feeding programmes, including in refugee camps in Gambella and schools in Addis Ababa and Sheger City. Key elements of EnDev's market development activities were the demand side subsidy and result-based financing schemes to scale eCooking solutions in partnership with SNV. These efforts targeted low-income condominium households and beneficiaries of government support programmes. Additionally, the result-based financing measure for solar companies in Tigray fostered an inclusive, climate-resilient energy transition.

EnDev also supported existing mini-grid systems and integrated productive-use appliances for small- and medium-sized enterprises, promoting local livelihoods in Sheder Camp, Somali Region. A major milestone was the introduction of solar dryers for coffee cooperatives in Illubabor, improving post-harvest handling, reducing losses, and enhancing product quality in climate-friendly value chains.

Additional efforts included electrification of health facilities and schools in underserved regions with high rates of female genital mutilation, strengthening the institutions' capacities to deliver prevention, awareness, and survivor-support services. However, several constraints required adjustments of the strategic focus for certain interventions due to the very volatile security situation (e.g. in Amhara and Tigray regions). This led to a slowdown in access creation for social institutions in these areas which was to some extent outweighed by new and successful interventions that targeted specifically small- and medium-sized enterprises. Thanks to refined approaches, EnDev is set to reach additional social institutions in 2026 through electrification interventions, as well as school feeding partnerships in the capital city and refugee communities.

School feeding as a pathway to improved education and nutrition

In Addis Ababa and surrounding areas, school feeding programmes provide daily breakfast and lunch to around 800,000 students in over 1,000 public schools, employing nearly 2,700 women in kitchens. Assessments show most kitchens use traditional open-fire stoves, exposing cooks to high heat and smoke with serious health and safety risks. In Gambella's refugee camps, school feeding programmes provide a daily meal to 64,125 students across 24 primary schools, where traditional cooking methods cause health, safety, and cost challenges for female cooks. To address this, EnDev Ethiopia and its partners introduced clean, energy-efficient cooking technologies and supported local producers - improving working conditions and reducing firewood costs in Gambella and Addis Ababa. Building on these results, EnDev will scale up clean institutional cooking nationwide cutting biomass use, protecting women's health, and enhancing programme sustainability.

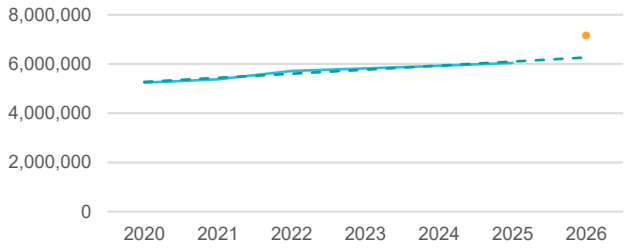
Kenya

Country facts	
Population	56.4 million
Human Development Index	Rank 143 / Index 0.628
UN Classification	Developing Economy
Access clean cooking	32%
Access electricity	76%

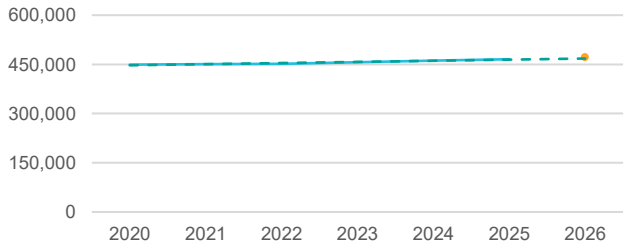
Project facts	
Project period	04.2009 – 12.2026
Budget	EUR 39,700,000
Core funding	EUR 33,155,000[15]
Earmarked	EUR 6,545,000
Average annual turnover of the last three years	EUR 4,393,855
Implementing organisation	GIZ, SNV, CLASP
Lead political partner	Ministry of Energy and Petroleum (MoEP)

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	6,043,700	7,147,600
People: Electricity	465,800	472,500
Social institutions	1,982	1,320
Micro-, small-, and medium-sized enterprises	13,993	13,030

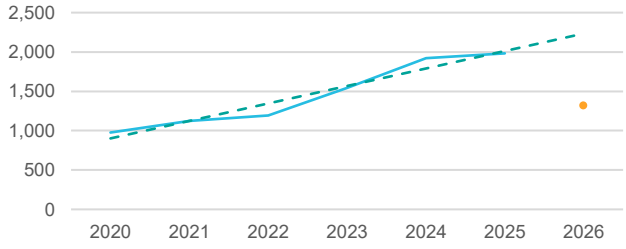
People with access to clean cooking



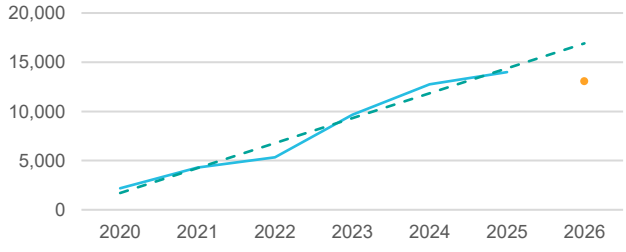
People with access to electricity

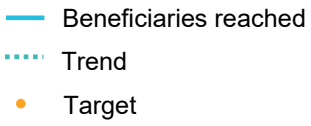


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





[15] Incl. FCDO RBF

Kenya

Accelerating modern energy access through awareness creation and affordability

Background information

Since 2009, EnDev has been promoting access to sustainable energy for households, social institutions and micro-, small-, and medium-sized enterprises in Kenya. The high national electricity access rate has been driven by initiatives such as the Last Mile Connectivity Project (LMCP) and other electrification programmes. EnDev supports Kenya's target of universal access to electricity and clean cooking by 2030 by advancing modern energy solutions for households, micro-, small-, and medium-sized enterprises, social institutions and displacement settings by providing various initiatives to strengthen the demand side, the supply side and the enabling environment.

In addition, EnDev implements two associated projects, the African Biodigester Component (ABC) Kenya, funded by the EU, DGIS and DANIDA through RVO, and the Green Climate Fund (GCF) co-financed project "Climate-friendly Cooking in Kenya and Senegal".

Progress made in 2025

In 2025, EnDev Kenya made significant progress in advancing access to higher-tier cooking solutions through continued implementation of the result-based financing facility promoting eCooking for households and micro-, small-, and medium-sized enterprises. The project further strengthened private sector awareness creation efforts by launching a digital clean cooking awareness campaign "Upishi Bora, Afya Bora" (Better Cooking, Better Health) in collaboration with influential Kenyan personalities.

EnDev continued implementation of the multi-stakeholder eCooking Tariff Study, which investigates the influence of electricity pricing on the usage of eCooking appliances by households. Energy consumption data was collected for six-months and aggregated using the digital monitoring, reporting, and verification platform Pro-spect. Insights will be shared with the Kenyan utility (KPLC) to enable evidence-based decision making at the initiation of the 2026 tariff control process.

The programme also partnered with five financial institutions, formalising the collaboration through the signing of Memoranda of Understanding to address key barriers to clean energy adoption, particularly awareness and affordability in rural Kenya. Through these partnerships, the Financial Institutions provide product-based loans to their members, enabling access to clean energy technologies through affordable and manageable instalment plans.

Under the humanitarian energy component implemented by SNV, the project introduced higher-tier cookstoves, including eCooking appliances and efficient biomass stoves. Support was provided to stove production units to prototype, and test higher-tier biomass stoves. To stimulate access to finance, the project facilitated capacity building of selected Village Savings and Loan Associations, including legal registration, financial literacy training and piloting of sustainable business models.

Empowering education through Modern Energy Access & WASH

Under the theme "*Empowering Education through Modern Energy Access and Water, Sanitation and Hygiene* (WASH)", EnDev, in collaboration with GIZ's Water and Sanitation Programme and Octopizzo Foundation, seeks to demonstrate sustainable solutions through the establishment of model schools.

Muhwayo Primary school has been equipped with a solar-powered water pump, storage tank, innovative water filtration systems, dedicated hand-washing facilities and a modern kitchen equipped with climate-friendly cookstoves. Together, these solutions provide learners with reliable access to clean and safe water for drinking and handwashing, while improving meal preparation and addressing challenges linked to food insecurity and poverty.

For Muhwayo's 450 learners, this project is more than just infrastructure. It restores valuable learning time, safeguards dignity, and creates a healthier, more supportive environment for brighter futures.

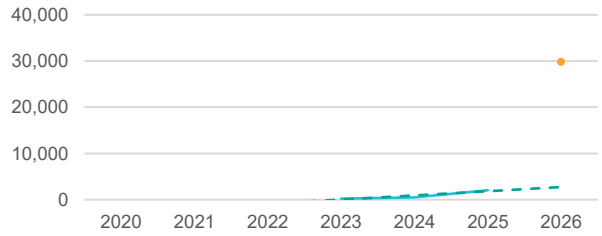
Liberia

Country facts	
Population	5.6 million
Human Development Index	Rank 177 / Index 0.510
UN Classification	Least developed country
Access clean cooking	1%
Access electricity	33%

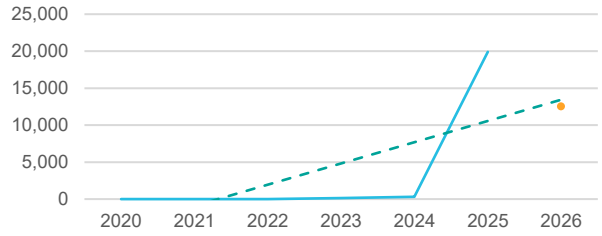
Project facts[16]	
Project period	05.2012 – 06.2026
Budget	EUR 16,800,000
Core funding	EUR 13,048,000
Earmarked	EUR 3,752,000
Average annual turnover of the last three years	EUR 931,311
Implementing organisation	GIZ
Lead political partner	Ministry of Mines and Energy

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	2,040	29,800
People: Electricity	19,900	12,500
Social institutions	176	98
Micro-, small-, and medium-sized enterprises	0	5

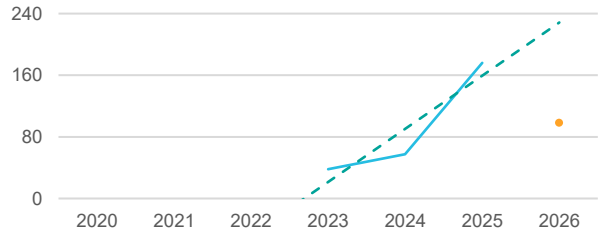
People with access to clean cooking



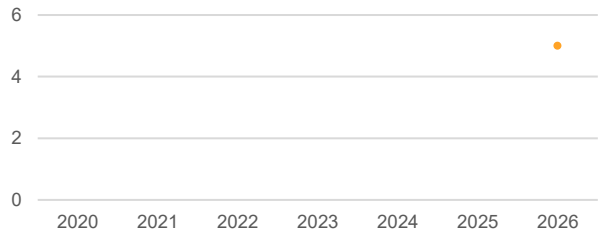
People with access to electricity

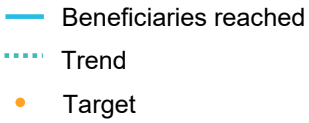


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





[16] Previously, Sierra Leone, Liberia, and Guinea were part of a multi-country approach. As of 07/23, Sierra Leone and Liberia are presented separately with individual indicative targets, whereas Guinea concluded in 12/2023.

Liberia

Sustainable growth for energy access

Background information

Energy access levels in Liberia remain among the lowest globally, with most households still lacking access to modern electricity and clean cooking solutions. In 2025, EnDev Liberia continued its interventions with a focus on clean cooking market development, institutional cooking access, and policy exchange.

Progress made in 2025

Market development for clean cooking solutions for households remained a priority for EnDev in 2025. To strengthen the supply side, EnDev provided intensive business development support to seven cookstove companies through workshops, mentoring, and tailored one-on-one advisory services. This engagement culminated in the launch of a results-based financing supply-side subsidy scheme in the second half of 2025. While most verified sales will be reflected in 2026 results, the scheme has already stimulated market momentum, strengthened company readiness for scale, and enabled enterprises such as LYAED (see text box) to expand production.

To boost demand, EnDev supported targeted awareness-raising and market activation activities. A consultancy conducted market research for participating companies and developed customised outreach strategies, including door-to-door approaches, which proved effective in reaching new and more customers. These efforts were complemented by digital influencer campaigns and regular market appearances promoting Liberian products. Public engagement at the annual Liberia Marathon further raised awareness, where clean cookstoves were showcased, raffled, and awarded as prizes — including to participants with disabilities in recognition of their achievement.

Together, these efforts strengthened the market despite slower progress toward the household cooking target, while electricity access interventions exceeded expectations and created valuable cross-learning opportunities for broader energy access goals.

In the institutional cooking sector, EnDev continued its partnership with the World Food Programme to expand access to improved institutional cookstoves in schools located in impoverished and underserved communities. This reflects also the programme's commitment to Leave No One Behind. Additional schools were equipped with high-efficiency stoves that reduce fuel consumption by around 40% compared to traditional cooking methods. This lowers fuel costs, improves kitchen working conditions, and contributes to preserving Liberia's primal rainforests. At the same time, the intervention stimulated the local market, with a Liberian stove company collaborating with EnDev having increased its production and supply contracts for institutional stoves.

In 2025, EnDev also supported policy exchange and regional learning. A study visit to Sierra Leone, led by Liberia's Deputy Minister of Energy, brought government representatives together for in-depth dialogues with Sierra Leonean counterparts, including the Presidential Initiative for Climate Change, Renewable Energy, and Food Security (PI-CREF). The exchange focussed on sharing insights from both countries' developments in the clean cooking sectors and highlighted the value of regional cooperation and knowledge sharing among EnDev-supported countries.

"We're moving, we're expanding, we're growing.'" – Mr. Peter Koffeh, LYAED

Peter Koffeh heads LYAED, a cookstove enterprise based in Monrovia employing 12 people. With support from EnDev's improved cookstoves subsidy, the company has scaled up production, strengthened marketing, expanded community outreach, and secured major orders - including an order of 600 stoves from the President's Office in Liberia.
Looking ahead, Peter has big plans for his stoves: With new materials already on the way, he wants to expand his workshop and push ahead with mechanising the largely manual production process. "EnDev's support," he says, "has opened our eyes."

Demand-Side Subsidies Component

Project Facts	
Project Period	08.2022 – 12.2026
Estimated Country Budget	EUR 3,752,000
Political Partner(s)	Ministry of Mines and Energy (MME), Rural and Renewable Energy Agency (RREA)
Fund Manager	BRAC Liberia

Progress of the DSS component in 2025

The objective of the demand-side subsidy (DSS) pilot in Liberia is to bridge the affordability gap for off-grid solar products and foster market expansion in multi-dimensionally poor, hard-to-reach counties in partnership with the Government of Liberia and the World Bank.

2025 marked a highly successful year for the DSS pilot in Liberia, with strong sales growth and expanded outreach to vulnerable populations. From January onwards, sales of solar home systems increased rapidly, reflecting growing consumer demand, strengthened company capacities, and improved product availability following partnership agreements with international manufacturers. With the rapid increase in sales, verification procedures were streamlined using a risk-based approach to accelerate claim processing while maintaining programme integrity.

Targeted business development support measures were provided to accelerate implementation. An accelerator programme implemented by Bloom Bank Africa delivered tailored business development support and individual training to six aspiring companies, covering all aspects of business operations including financial management, strategic planning, and operational efficiency. This support strengthened the ability of participating companies to manage growth and scale their operations effectively.

Expanding on the Leave No One Behind objective, a voucher-based sub-pilot was implemented to reach vulnerable women in Bong and Nimba counties. To address severe affordability barriers, solar home system products were provided at higher subsidy levels. Implemented with local women's cooperatives and support programmes, the sub-pilot resulted in over 3,000 sales to unserved beneficiaries, including widows and female-headed households.

The DSS component was extended into 2026, with sales in Liberia closing as of 31 December 2025 and programme closure planned for June 2026.

Alignment and collaboration with the World Bank

In Liberia, the DSS pilot is implemented as part of the Liberia Solar Home System Result-Based Financing programme, a joint results-based financing initiative between EnDev and the World Bank-funded Liberia Electricity Sector Strengthening and Access Project (LESSAP). EnDev provides DSS, while the Rural and Renewable Energy Agency (RREA) provides supply-side subsidies.

With the phase-out of EnDev's DSS incentives, RREA has signalled its intention to address affordability challenges by integrating DSS for both solar home systems and productive use technologies into its ongoing results-based financing programme. EnDev, RREA, and the World Bank are closely exchanging on how to best integrate the DSS learnings into the LESSAP programme.

KPI	Achieved	Target
# of people reached with solar products	39,590	44,700

DSS lessons learnt

Engagement with international manufacturers demonstrated that structured supply and pre-financing arrangements can help overcome capital constraints in nascent markets—a pre-requisite for a successful, market-driven DSS scheme. EnDev facilitated partnerships between manufacturers and local distributors through a bonded warehouse model that reduced upfront financing needs for companies. Under this approach, part of the incentive payment was made directly to manufacturers, lowering financial risk and ensuring liquidity along the value chain. Clear agreements, transparent repayment structures, and strong financial management emerged as key to manage repayment risks.

The sub-pilot successfully demonstrated that high-subsidy mechanisms can effectively reach vulnerable populations in unserved markets. However, beneficiary identification, coordination with cooperatives, and voucher tracking required substantial administrative oversight. Future scale-up would benefit from systematic integration with existing social protection registries or community validation mechanisms to streamline targeting and delivery.

Working through community-based sales approaches also proved effective in accelerating uptake in remote areas. Encouraging companies to focus outreach at the community level helped build trust, improve awareness, and reduce distribution and servicing costs in hard-to-reach settings.

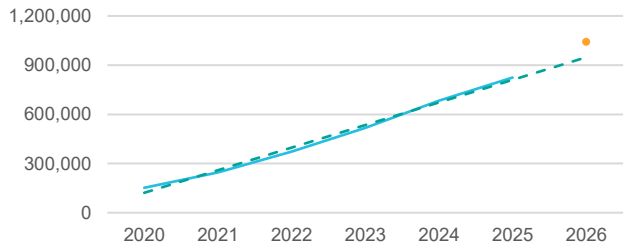
Madagascar

Country facts	
Population	32.0 million
Human Development Index	Rank 183 / Index 0.487
UN Classification	Least developed country
Access clean cooking	2%
Access electricity	39%

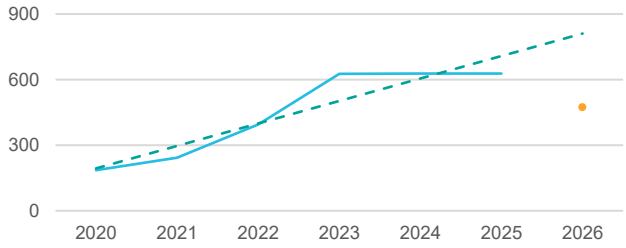
Project facts	
Project period	12.2012 – 12.2026
Budget	EUR 2,825,000
Core funding	EUR 2,825,000
Earmarked	EUR 0
Average annual turnover of the last three years	EUR 319,363
Implementing organisation	ADES
Lead political partner	Ministère de l'Énergie et des Hydrocarbures

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	824,300	1,041,100
People: Electricity	0	0
Social institutions	628	474
Micro-, small-, and medium-sized enterprises	4,986	2,211

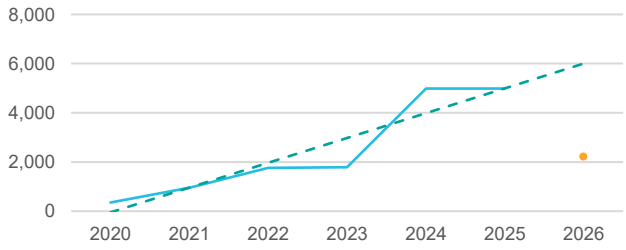
People with access to clean cooking

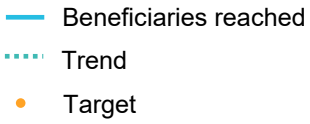


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





Madagascar

Empowering vulnerable communities for a better future

Background information

In 2025, Madagascar continued to face intertwined environmental and socio-economic pressures, marked by deforestation, energy poverty, and persistent rural hardship. In this context, EnDev's partnership with the Swiss-Malagasy NGO ADES remained key to driving tangible progress. Building on long-standing experience, ADES expanded sustainable cooking solutions, reforestation efforts, and environmental education, strengthening resilience across vulnerable communities and supporting national climate and development goals. Producing solar cookers and improved stoves that reduce fuel use by 50–70%, ADES helps ease pressure on forests, while its production facilities, 12 distribution centres, and strong reseller network ensure wide reach and strong community engagement.

Progress made in 2025

In 2025, EnDev's activities in Madagascar, implemented through its long-standing partner ADES, achieved remarkable progress across multiple thematic areas. Through EnDev cooperation with ADES, more than 79,800 trees were planted with a 90% survival rate, benefiting over 200 households. Environmental education initiatives reached more than 30,000 children across 200 schools, while energy-efficient cooking solutions improved the daily lives of people—promoting better health, gender equality, and environmental protection.

EnDev's market-based approach ensured that 25% of all stoves were sold in the poorest regions, contributing to the joint goal of reaching 160,000 annual sales beyond EnDev by 2030. This success was made possible by 284 resellers of ADES—63% of them women—who earned additional income and supported local economic growth. With EnDev's financial and technical support, ADES strengthened its industrial and management capacity in 2025. New 3D design tools and production machinery improved manufacturing efficiency and product quality. In addition, compliance with EnDev's procurement and project management standards drove key internal upgrades: the enterprise-resource-planning system introduced in 2024 enhanced transparency, and import procedures were further streamlined to ensure professional, accountable operations.

"I have been using ADES improved stoves for 10 years now, without ever having to replace them. I take great care of them, but it must be said that they are also remarkably durable."
Ms. Marie Eulalie Rafanirihantsoa Havitriniaina, beneficiary in Fianarantsoa.

Although collecting reliable data on vulnerable groups remains difficult, EnDev has made solid progress in improving outreach. Since 2024, ADES has applied remoteness and low income as key poverty indicators. This strengthened targeting has increased cookstove sales to disadvantaged, hard-to-reach communities. Nonetheless, broader structural factors have moderated target achievements for improved cookstoves. Low affordability amid chronic poverty—exacerbated by the October 2025 political crisis and prolonged vanilla market volatility—has persisted across years, alongside market fragmentation from emerging clean cooking initiatives. These dynamics have limited beneficiaries' ability to invest in improved cooking solutions.

Empowering women and improving livelihoods

Through EnDev-supported reseller trainings implemented by ADES, women from disadvantaged communities gain real opportunities to build sustainable livelihoods. Participants gain practical business skills, confidence, and entrepreneurial perspectives they previously lacked. Many participants have since expanded their client base, increased their income, and even opened new sales points. Beyond economic benefits, these sessions foster peer learning and mutual motivation, empowering women to become advocates for clean cooking solutions within their communities.

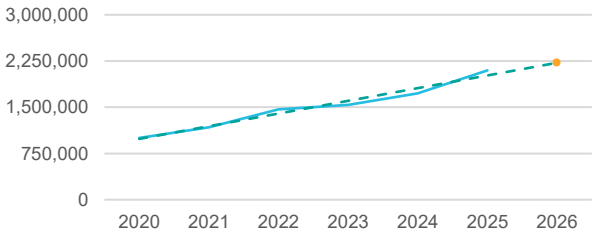
Malawi

Country facts	
Population	21.7 million
Human Development Index	Rank 172 / Index 0.517
UN Classification	Least developed country
Access clean cooking	2%
Access electricity	16%

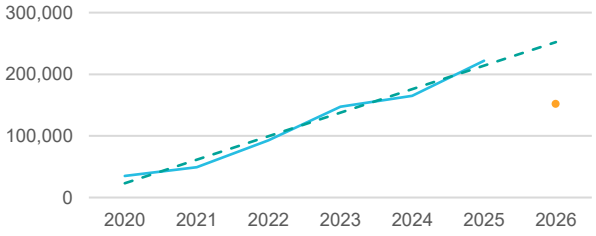
Project facts	
Project period	12.2012 – 12.2026
Budget	EUR 29,030,000
Core funding	EUR 14,642,000[17]
Earmarked	EUR 14,338,000
Average annual turnover of the last three years	EUR 4,561,621
Implementing organisation	GIZ, Maeve, Self Help Africa
Lead political partner	Ministry of Energy and Mining

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	2,097,500	2,226,200
People: Electricity	221,900	151,900
Social institutions	189	37
Micro-, small-, and medium-sized enterprises	599	436

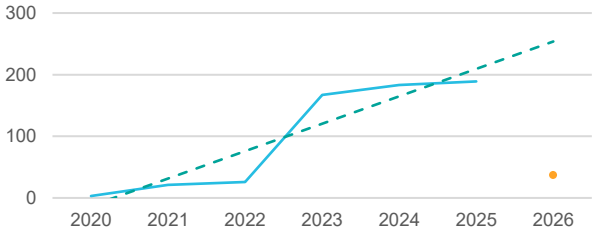
People with access to clean cooking



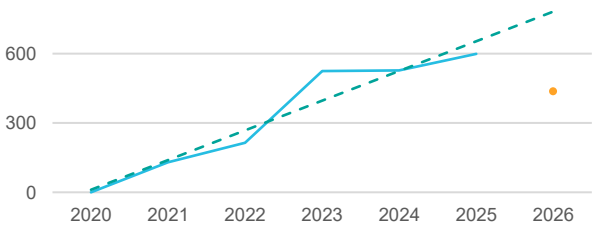
People with access to electricity

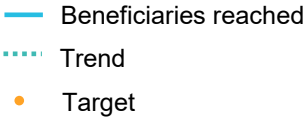


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





[17] Incl. FCDO RBF

Malawi

Solar energy strengthening resilience in Kasakula

Background information

Malawi's energy access gap remains severe. Around 74% of the population lives without electricity, while over 90% of households depend on firewood and unsustainably produced charcoal for cooking—driving deforestation, health risks and energy poverty.

In 2025, EnDev Malawi advanced energy access in line with the Government of Malawi's National Energy Compact, the eCooking Roadmap, and the forthcoming Clean Cooking and productive use of energy strategies. Progress, however, was slowed by macroeconomic instability, foreign exchange shortages, climate-related disruptions to power generation, and a challenging business environment, particularly for micro-, small-, and medium-sized enterprises.

Progress made in 2025

In 2025, EnDev remained strongly committed to strengthening Malawi's improved cookstove sector and the wider clean energy market. business development support, including Gender Makes Business Sense training, was provided to stove producers to enhance enterprise sustainability and inclusivity.

To improve private sector capacities, EnDev delivered tailored business development support to 25 renewable energy companies operating in solar electrification and clean cooking, including 10 companies onboarded in 2025. This support aims to strengthen business models, improve investment readiness, and enhance financial capacity, thereby accelerating access to sustainable energy solutions. Five of the supported companies also benefited from specialized coaching under EnDev's Energy Enterprise Coach (EEC) initiative.

EnDev supported the Renewable Energy Industries Association of Malawi (REIAMA) with the operations of the Productive Use of Energy Technical Working Group and the annual National Energy Conference. EnDev also continued its role as technical lead of the National Cookstove Steering Committee's firewood and newly established electric cooking working groups.

To promote inclusive access, EnDev integrated its *Leave No One Behind* (LNOB) approach by providing clean cooking solutions to recipients of unconditional social cash transfers, targeting ultra-poor and labour-constrained households across five districts. Additionally, EnDev supported last-mile delivery through targeted commissions, training community-based organisations and installation of institutional cookstoves in hard-to-reach rural communities.

In 2025, EnDev Malawi's results-based financing initiative for higher-tier cooking yielded first sales with successful verification of initial milestones.

The Energising Health intervention concluded with a formal handover ceremony officiated by the Minister of Health and Minister of Energy and attended by community members and local leaders.

Lighting all of Kasakula

EnDev has partnered with SolarAid to pilot an Energy as a Service (EaaS) activity which allows households to access modern energy at affordable rates. While the activity initially focused on universal access to solar lighting, it has evolved to address climate resilience and livelihoods.

In its first phase, the activity supported the electrification of 8,813 households with solar home systems of which EnDev contributed 1,000. The activity has now expanded to productive uses of energy, responding to the growing impacts of climate variability on rural incomes.

A key innovation was the introduction of solar-powered irrigation water pumps which are made available through a rental model, allowing farmers to pay a daily fee rather than purchasing equipment outright. This approach reduces upfront costs and ensures centralized maintenance, so that farmers can irrigate their crops during dry periods, helping stabilize incomes in the face of increasingly erratic rainfall. Alongside irrigation, the project supports clean cooking as a complementary intervention.

Demand-Side Subsidies Component

Project Facts	
Project Period	08.2022 – 12.2026
Estimated Country Budget	EUR 4,866,000
Political Partner(s)	Ministry of Energy
Fund Manager(s)	Self Help Africa (SHA), CUMO Microfinance Limited

Progress of the DSS component in 2025

The demand-side subsidy (DSS) pilot in Malawi targets households classified as 'poorer' and 'poorest' in the Malawi Social Registry (MSR), a nationwide social registry. Through a results-based financing mechanism, EnDev addresses affordability barriers to off-grid solar products and improved cookstoves for people in ultra-poor settings.

Implementation reached full-scale in 2025. Solar sales accelerated significantly, while cookstove sales continued with slower but steady growth. A mid-term review informed an adjustment of targets, nearly doubling solar targets alongside a reduction in cookstove targets. These changes reflect observed customer demand, supply-side challenges as well as the impact of inflation on prices and subsidy budgets.

To meet the higher solar target, implementation was expanded to three additional districts: Dowa, Kasungu, and Mzimba. To address lagging cookstove uptake, targeted measures were introduced including increased advance payments at the time of claiming, enhanced awareness raising, and higher subsidy levels to better reflect rising operational costs. Additional suppliers for both solar and cookstove products were onboarded.

Eligibility procedures were adapted to strengthen inclusion. Beneficiaries of social cash transfers were made eligible for subsidised systems, and the customer eligibility tool (hosted by KOBO Toolbox) was adapted to include government-issued social cash transfer IDs where national IDs are unavailable. In response to rising inflation, off-grid solar retail prices increased. These changes were closely monitored, and the subsidy structure was adjusted accordingly to address growing affordability gaps.

A joint field mission with the Ministries of Energy, Gender, and Economic Planning showcased project progress, demonstrated benefits for beneficiary households, and built support for potential scale up. The DSS component was extended into 2026, with programme closure planned for September 2026 in Malawi.

Alignment and collaboration with the World Bank

EnDev Malawi and the World Bank continued monthly coordination meetings to align between the DSS pilot and the World Bank's Ngwee Ngwee Ngwee Fund, a component of the Malawi Electricity Access Project (MEAP). These meetings continued to facilitate knowledge sharing and provided a platform to cross-check sales and safeguard against double-counting.

In parallel, dedicated learning and transition discussions were initiated to inform phase-out planning and explore options for scaling approaches beyond the pilot. While MEAP will not include a targeted demand-side subsidy for the foreseeable future, these exchanges contributed to aligning lessons learned with future electrification programming under both MEAP and ASCENT.

KPI	Achieved	Target
# of people reached (total)	103,940	224,000
# of people reached with solar products	53,830	70,200
# of people reached with cooking products	50,110	153,800

Lessons learnt

Implementation highlighted the cash-flow constraints faced by suppliers operating under a results-based financing model that requires significant upfront price reductions. While advance payments against submitted claims were introduced, the absence of broader upfront financing continued to limit suppliers' ability to maintain continuous stock levels. Companies operating on tight margins therefore experienced intermittent sales cycles linked to reimbursement timelines.

For improved cookstoves, ensuring cost-reflective pricing above the government-set price ceiling proved important to maintain supplier participation, requiring ongoing dialogue with companies and regular market checks. As in Uganda, cookstove suppliers require additional support to establish and stabilise new supply chains as well as improve data management for results-based financing participation.

Macroeconomic volatility and inflationary pressures reinforced the need for flexible programming as well as close monitoring of price developments and affordability impacts. Clear communication and transparent eligibility criteria also emerged as a key to managing expectations and ensuring fair access.

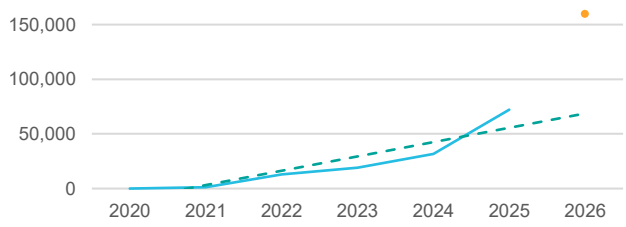
Mali

Country facts	
Population	24.5 million
Human Development Index	Rank 188 / Index 0.419
UN Classification	Least developed country
Access clean cooking	1%
Access electricity	54%

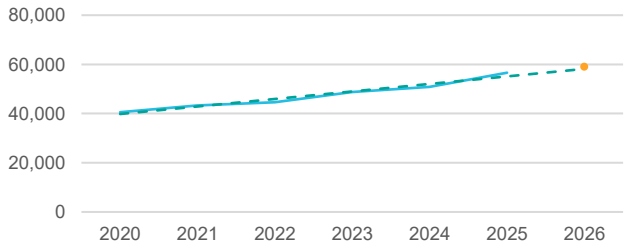
Project facts	
Project period	04.2009 - 12.2026
Budget	EUR 20,805,000
Core funding	EUR 20,805,000
Earmarked	EUR 0
Average annual turnover of the last three years	EUR 1,795,507
Implementing organisation	GIZ, SNV, NIS
Lead political partner	Direction Nationale de l'Energie/Ministère de l'Energie et de l'Eau

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	72,160	159,600
People: Electricity	56,620	59,000
Social institutions	563	512
Micro-, small-, and medium-sized enterprises	729	484

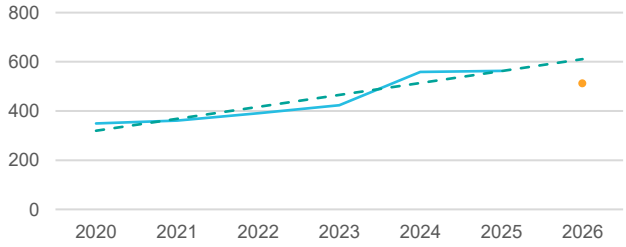
People with access to clean cooking



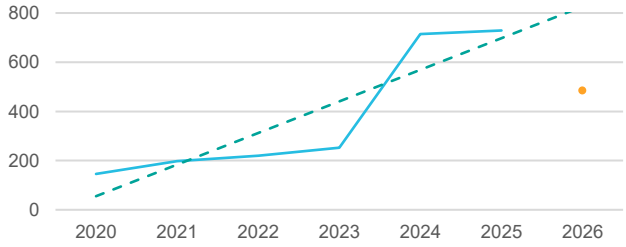
People with access to electricity



Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity



Beneficiaries reached
Trend
Target

Mali

Driving energy access for fragile communities

Background information

The political and security situation in Mali remained volatile in 2025, with persistent terrorist threats across much of the country. Despite mounting pressure, the capital Bamako has largely remained stable. Ongoing insecurity, coupled with energy and fuel constraints, have disrupted local markets, driven up prices and affected livelihoods and implementation of project activities, particularly in rural areas. In response, the project's adaptive implementation approach—developed collaboratively with local partners—has transitioned from a temporary to a more sustained strategy ensuring continuity and resilience.

Progress made in 2025

In 2025, EnDev in Mali achieved significant results despite challenging conditions, focusing on strengthening energy markets, expanding productive energy use, and improving livelihoods through clean, reliable energy solutions. These initiatives generated tangible economic and social benefits for rural communities and vulnerable populations.

In the Barouéli area near Ségou, renewable productive-use technologies catalyzed local economic activity through communal lease-purchase arrangements. The deployment of freezer-based systems strengthened income-generating activities linked to agriculture and trade. A results-based financing pilot further accelerated rural solar market development by incentivising two companies to deploy solar pumps for cooperatives and farmers.

Market development in the clean cooking sector has gained momentum. Three previously developed productive-use clean cooking solutions reached commercial readiness, while results-based financing drove stronger-than-expected demand. Early adoption of higher-tier solutions was reflected in growing sales of labelled stoves, which far exceeded verified figures, reflecting robust underlying demand amid border closures, electricity outages, coups, and economic pressures. Collaboration with the Strengthening Entrepreneurial Ecosystem for Clean Cooking (SEE-CC) project has continued, with research on awareness campaigns and strengthening the Mali Alliance for Clean Cooking.

Despite the positive developments, broader structural factors like gradual labelling/testing rollout and the above disruptions have moderated the target achievement for improved cookstoves. As mitigation, the Mali Alliance for Clean Cooking received training on management and monitoring of the platform for registering certified stoves independently beyond the SNV grant that ended in 2025. Collaboration with M-ACC has strengthened awareness, customer confidence, and market transformation. The project maintained inclusive energy access by prioritising gender equality and the Leave No One Behind approach. While activities of the Nordic International Support Foundation in northern Mali ended in 2025, progress continued via renewable cooling technologies, household solar lighting systems, and a demand-side subsidy pilot selling more than 500 pico-PV systems to internally displaced persons and host communities in two months – plus 1,290 unsubsidised systems showing an increasingly mature market. Furthermore, households and small enterprises were connected to mini-grids and community health centres were electrified in vulnerable areas. The activities for the electrification of rural health institutions were completed in 2025, enhancing essential health services in underserved communities.

Becoming a solar energy professional and overcoming poverty

As part of a pilot using the demand-side subsidy approach, EnDev supported internally displaced persons and host communities in Bamako, Ségou, and Dioïla. Young people from these vulnerable communities were trained in solar energy, strengthening their practical skills and employability in the growing renewable energy sector. Following the training, the participants received equipment that enabled them to carry out solar installations independently. By developing their expertise as solar technicians, these young people are now able to earn income through paid installation services within their communities and beyond. This strengthened livelihoods while helping them progress towards greater economic stability and resilience, alongside broader access to clean energy.

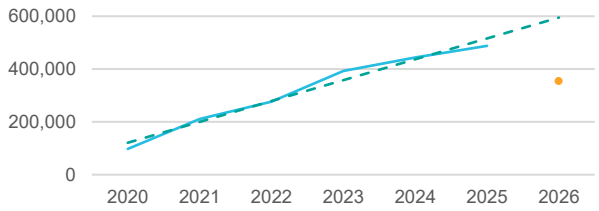
Mozambique

Country facts	
Population	34.6 million
Human Development Index	Rank 182 / Index 0.493
UN Classification	Least developed country
Access clean cooking	7%
Access electricity	36%

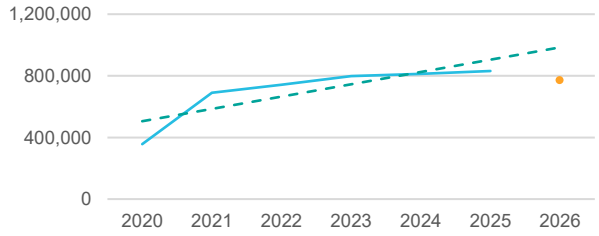
Project facts	
Project period	10.2009 – 12.2026
Budget	EUR 42,443,000
Core funding	EUR 30,543,955
Earmarked	EUR 11,899,045
Average annual turnover of the last three years	EUR 3,098,262
Implementing organisation	GIZ
Lead political partner	Ministry of Mineral Resources and Energy

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	487,700	354,400
People: Electricity	831,300	772,100
Social institutions	14	18
Micro-, small-, and medium-sized enterprises	76	108

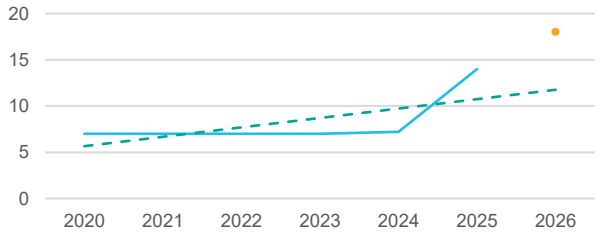
People with access to clean cooking



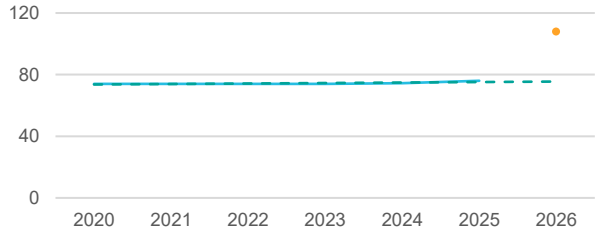
People with access to electricity

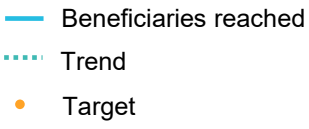


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





Mozambique

Stabilising energy access markets and advancing positive impact on vulnerable groups

Background information

EnDev Mozambique pursues a holistic and multi-faceted approach to expanding demand-driven energy access for households and small-, and medium-sized enterprises. With a strong focus on the Leave No One Behind (LNOB) principle, EnDev promotes off-grid electrification and clean cooking solutions to reach underserved and remote communities. EnDev Mozambique supports increased energy access through financial incentives, namely results-based financing, business development, ecosystem strengthening, learning transfer, innovation, and policy advice.

Progress made in 2025

In 2025, EnDev Mozambique reinforced its LNOB approach through the results-based financing facility FASER. Political unrest associated with electoral tensions from late 2024 through the first quarter of 2025 created considerable operational challenges for companies in the energy market, limiting market access and business continuity. During this period, EnDev's result-based financing facility FASER played a stabilising role, particularly for smaller enterprises, by ensuring continued access to results-based financing for 13 companies. Although operations gradually resumed in the second quarter, recovery remained slow as households continued to experience economic hardship.

EnDev Mozambique intensified its focus on vulnerable groups and launched a dedicated LNOB result-based financing window using a reverse-auction approach. This mechanism requires companies to determine the incentive level needed to reach underserved segments, including women in rural areas and other LNOB target groups. The eligible technologies for the new window include a diverse range of clean cooking solutions (including higher-tier cooking and biogas) as well as solar PV solutions including productive use of energy. To strengthen distribution channels for productive use of energy appliances, EnDev partnered with an NGO to train rural agro-shop owners in Gaza Province to sell and service solar irrigation pumps, reinforcing the agriculture-energy nexus.

EnDev Mozambique also supported the national standards institution INNOQ in adopting and translating seven relevant ISO standards for clean cooking (five in 2025). Strategic partnerships with the World Food Programme (WFP) further expanded institutional cooking solutions to school identified in close alignment with the Government of Mozambique via the National School Feeding Programme. A total of twelve construction companies were trained to construct institutional cookstoves across the three provinces Tete, Nampula, and Gaza. In parallel, end-users received practical training on the proper operation and maintenance of the stoves, ensuring their safe and efficient use. Kitchen Performance Tests demonstrated high energy efficiency and fuel savings compared to the traditional cooking method.

Women drive market growth: Turning eCooking into everyday savings

Many companies recognize the power of women as clean-energy sales agents and trusted community advisors. The BURN collaboration is a strong success case of this approach: women-led sales have driven both market uptake and social impact, while also creating visible female role models in the energy sector. A clear example is Mariana Cuinhane, the top-performing female agent in Maputo, who has sold 120 induction cookers since the start of the eCooking project. Her strength is not only in sales volume, but in how she builds customer trust. She explains induction cooking in practical, relatable terms, especially by comparing electricity and charcoal costs meal by meal helping households make informed decisions based on real savings. Her strong after-sales support has led to the highest payment efficiency in her team, reflecting high customer satisfaction. Mariana also mentors peers by joining demonstrations, sharing effective sales techniques, and helping close complex cases, improving overall team performance. In this way, she serves as both a high-performing agent and a role model for women's entrepreneurship in clean energy.

Niger

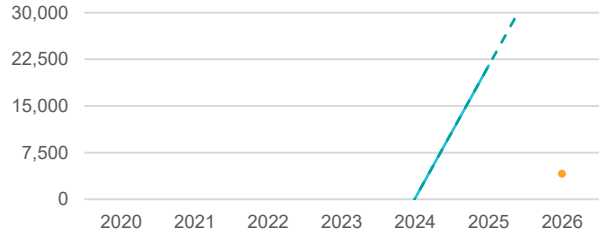
Country facts	
Population	27.0 million
Human Development Index	Rank 188 / Index 0.419
UN Classification	Least developed country
Access clean cooking	5%
Access electricity	20%

Project facts	
Project period	07.2022 – 12.2026
Budget	EUR 5,155,000
Core funding	EUR 1,040,000
Earmarked	EUR 4,115,000
Average annual turnover of the last three years	EUR 581,150
Implementing organisation	GIZ
Lead political partner	Ministère de l'Économie et des Finances

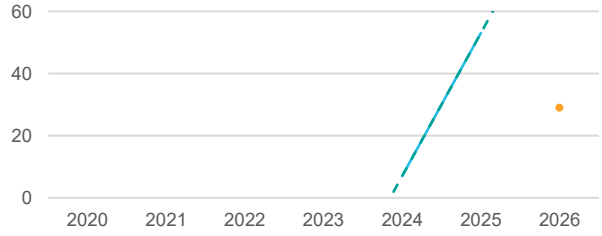
Achievements in energy access

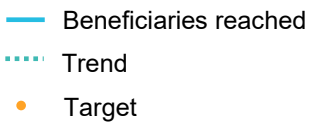
Target group	Reached	Target
People: Clean cooking	0	0
People: Electricity	21,480	4,100
Social institutions	0	0
Micro-, small-, and medium-sized enterprises	53	29

People with access to electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





Niger

Overcoming energy poverty and fostering local development in displacement settings

Background information

Energy poverty remains a critical bottleneck to economic and social development in rural Niger, where electricity access stands at just 10% despite over 80% of the population residing in these areas. Untapped economic potential, low-yield and inefficient income activities perpetuate cycles of poverty, underemployment, and migration, particularly affecting women and youth. Niger's nascent off-grid solar sector faces supply- and demand-side barriers, hindering market scale-up and outreach to rural communities. Yet, the market shows strong growth potential due to substantial unmet demand and proven pilot successes, as demonstrated with the Demand-Side Subsidies Component in Niger.

Progress made in 2025

Productive Use of Renewable Energy – EnDev accelerated its promotion of productive renewable energy use with a strong *Leave No One Behind (LNOB)* focus, building on strategic partnerships in the GIZ portfolio and with external partners. Together with UNHCR, EnDev electrified a refugee-led community centre, providing reliable electricity access to over 200 refugees and host community members - all vulnerable women - engaged in income-generating activities such as cold beverage vending, henna artistry, tailoring, barbering, and soap production. In displacement settings, EnDev introduced a solar grinder for a women's group of refugees and host community members, boosting post-harvest productivity. Partnering with the Sahel Resilience Partnership programme (co-implemented by GIZ, World Food Programme, and UNICEF), EnDev deployed solar water pumps, freezers, and grinders to enhance agricultural production, processing, and fish preservation, raising small- and medium-sized enterprises incomes by 30-70%.

Promotion of Off-Grid Solar Solutions – EnDev provides demand and supply side support to strengthen Niger´s nascent solar market, by addressing major market barriers through the provision of various market development measures. Furthermore, EnDev trained and integrated over 530 youth and women into the local distribution chain and after-sales market. Given these positive results, the approach was replicated by solar companies, expanding participation to over 600 community members in the local energy value chain.

EnDev Niger also launched its first supply-side results-based financing initiative, contracting two solar companies to commercialise VERASOL-certified solar products in the regions of Agadez, Zinder, Maradi, and Tahoua. The incentive scheme is covering sales costs, enabling companies to reach previously untapped markets.

"EnDev's market support enables us to efficiently distribute solar products, contributing to more than 80% of our overall revenue in 2025. EnDev is a boon for creating a last-mile network and increasing our revenue."
Guy Marcel-Noutam, Chief Operating Officer, SolNiger

Clean Cooking Energy – In partnership with the Netherlands Development Organisation (SNV), EnDev conducted a market scoping study to assess market dynamics in the cooking sector. The findings will inform targeted market measures to promote clean cooking solutions in Niger. EnDev also supports the Ministry of Energy in integrating clean cooking into higher education curricula, promoting long-term institutional capacity.

Enabling livelihoods in displacement settings

Ziada Ada Malam, 32, married and father of two, exemplifies how EnDev transforms lives in Niger. Formerly a volunteer Youth Council president in Bagaroua without a stable income, he was trained and coached by EnDev for joining the local energy value chain as a technical sales agent. Ziada progressed from an informal last-mile distributor to a formally contracted commercial coordinator overseeing several communes. His monthly income now reaches 900,000 FCFA/month (1.373 EUR/month), enabling a decent life and the start of his house construction project. He has gained financial independence and supports rural electrification for the most vulnerable. Ziada's journey inspires Nigerien youth and shows how EnDev promotes professional integration, green skills, and local development.

Demand-Side Subsidies Component

Project Facts.	
Project Period	08.2022 - 12.2026
Estimated Country Budget	EUR 4,115,000
Political Partner(s)	Ministère de l'Economie et des Finances
Fund Manager	Mercy Corps

Progress of the DSS component in 2025

The demand-side subsidy (DSS) pilot in Niger aims to enable first-time electricity access for displaced people and host community members in targeted communities. Through an results-based financing mechanism, EnDev bridges affordability gaps for off-grid solar (OGS) products in rural displacement settings.

In early 2025, five solar companies were contracted under a performance-based budget allocation system. Contracts with two non-performing companies were later suspended. This flexible approach allowed for engagement only with high-performing companies and efficient redeployment of project resources.

To address OGS stock shortages, EnDev facilitated a partnership with SPARK (an OGS supplier) to secure a steady and high level of product availability in-country. This partnership allowed DSS Niger to scale-up implementation to all target communities from August 2025 onwards. As a risk mitigation measure following the worsening security situation in Bagaroua, three additional displacement communities – Sabon Guida, Azarori, and Guidan Sori – were added to the pilot's intervention zone.

EnDev's effective business development support focused on the supply and demand side, triggering accelerated market growth. EnDev introduced multiple distribution channels, mobilised local community members as sales agents, and conducted frequent awareness raising campaigns through various communication channels. Furthermore, an incentive scheme for 17 trained women's groups was introduced, enabling them to operate as sales agents at village level. While overall sales sharply increased, uptake among displaced households remained limited. In response, a household affordability survey was conducted to reassess affordability among displaced households.

In comparison to historical OGS sales in the country, sales figures between September and December demonstrate an exceptional market growth triggered by the project. The DSS component was extended into 2026, with sales in Niger planned until May and programme closure in December.

Alignment and collaboration with the World Bank

Regular exchanges with the World Bank resumed in mid-2025 to share implementation progress and lessons from the DSS approach. Learning and transition discussions to inform the DSS phase-out are planned for 2026. In parallel, initial contact with ANERSOL – the national agency for solar energy – has resumed.

KPI	Achieved	Target
# of people reached with solar products	20,680	35,600

DSS lessons learnt

The DSS pilot in Niger offers important lessons on promoting energy access and local energy markets in fragile contexts. Implementation underscored the need for robust market intelligence and flexible programming, with adjustments to verification procedures and implementation areas proving instrumental in response to instability and economic volatility.

Business development support and community engagement was critical to strengthening the nascent market. Mobilising community members within the local energy value chain promotes technical expertise at local level, enables green jobs, and fosters trust and local ownership, which proved particularly important in remote, displacement-affected contexts. Logistics support also emerged as a relevant factor to ensure company mobility, product availability and last-mile delivery.

While EnDev Niger's adaptive approach stimulated considerable growth in Niger's' nascent solar market, demand among displaced households grew at a slower pace compared to host community members. Affordability constraints proved particularly prohibitive for refugee and internally displaced households. While dedicated awareness-raising for displaced people improved uptake, differentiated incentive structures emerged as potentially necessary to ensure meaningful inclusion of displaced households, and will be applied in early 2026.

In Niger, where humanitarian aid has long shaped expectations around free giveaways, market-based instruments like results-based financing can contribute to shifting perceptions and facilitate a transition from aid dependency to viable local markets.

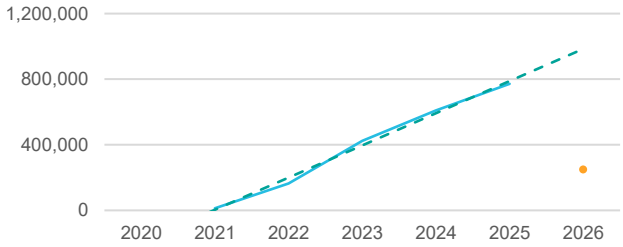
Rwanda

Country facts	
Population	14.3 million
Human Development Index	Rank 159 / Index 0.578
UN Classification	Least developed country
Access clean cooking	9%
Access electricity	64%

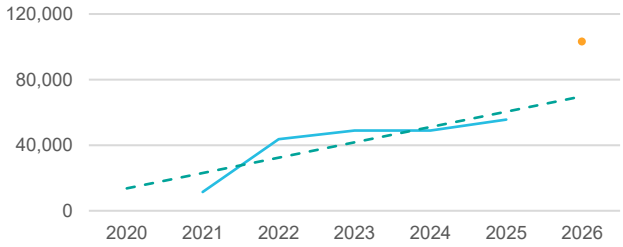
Project facts	
Project period	10.2009 – 12.2026
Budget	EUR 34,824,000
Core funding	EUR 27,480,860[18]
Earmarked	EUR 7,343,140
Average annual turnover of the last three years	EUR 1,999,073
Implementing organisation	GIZ, Practical Action, SNV, Mercy Corps-Energy4Impact
Lead political partner	Ministry of Infrastructure (MININFRA)

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	771,800	247,300
People: Electricity	55,600	103,200
Social institutions	11	20
Micro-, small-, and medium-sized enterprises	251	432

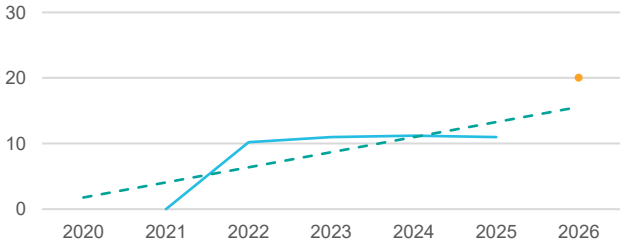
People with access to clean cooking



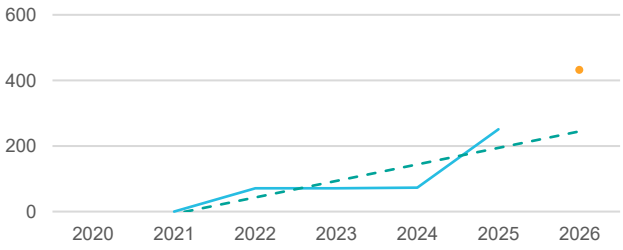
People with access to electricity



Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity



Beneficiaries reached
Trend
Target

[18] incl. FCDO RBF

Rwanda

“Being connected to the grid seemed impossible – until it happened”

Background information

Rwanda continues to advance its Energy Sector Reform Agenda 2035, maintaining steady efforts to expand electricity access and improve service delivery. Recent tariff adjustments aimed to enhance affordability for low-income households while promoting cost-reflective pricing.

Nonetheless, access to affordable clean cooking solutions remains limited, especially for vulnerable groups. While local manufacturing capacity and private sector participation have increased, persistent affordability challenges and limited consumer financing options constrain large-scale adoption. As a result, market growth continues to depend heavily on subsidies.

Progress made in 2025

Implementation of the humanitarian energy access project by Practical Action concluded in December 2025. The project successfully supported refugee women entrepreneurs through matching grants aimed at productive use of energy. However, progress on higher-tier cooking access in households supported by results-based financing remained far below expectation, underscoring the challenges of market-based approaches in refugee camps. EnDev is collaborating with in-country humanitarian partners to integrate lessons learned on behaviour change, demand creation, and feed supplier capacity needs into future programming.

Under EnDev’s Innovation window an eCooking results-based financing scheme supported two companies in distributing subsidised eCooking appliances through an “earn-as-you-cook” rebate mechanism. Gender-responsive awareness campaigns in eight districts contributed to overcome social and cultural barriers, strengthening eCooking adoption.

The EU-co-financed biomass cooking project closed in October 2025 after five years, successfully strengthening local production capacities for stoves pellets and briquettes. To address affordability challenges for higher-tier stoves, the FinTech company MoneyPhone piloted a digital loan model linking cookstove purchases to low-interest digital agricultural input loans, with repayment aligned to agricultural income flow.

For the productive use of energy in the agricultural sector, changes in national irrigation subsidy frameworks required a shift from the original results-based financing approach supporting instalment-based financing for solar water pumps. EnDev with Mercy Corps–Energy4Impact and EUCORD partnered with MoneyPhone to introduce a group loan product for solar pumps and engaged over ten cooperatives in awareness creation. The first sales under this scheme generated strong interest among government stakeholders, demonstrating proof-of-concept for unsubsidised solar pump sales.

Also, EnDev and the Rwanda Energy Group (REG) EnDev implemented a results-based financing scheme for grid densification to lower connectivity barriers, including internal wiring costs, and gender-related disparities. More than 60% of beneficiary households were women-headed, contributing to EnDev’s *Leave no one behind* (LNOB) objectives. Building on this success, the activity will continue in 2026.

Powering learning and opportunity

Clementine Bamporiki lives with her husband and her five children in the hills of Rwamagana district. A small market and church sit nearby, but for years her community lacked one essential service: access to electricity. Her family previously relied on a battery-powered radio for news and music, while their children studied with a phone torchlight. Charging phones required frequent payments to a charging kiosk. Grid connection seemed impossible – until it became a reality: In the first months of 2025, REG together with EnDev Rwanda connected Clementine’s household, their neighbours, and a nearby village of genocide survivors to reliable and safe grid electricity. Today, her children can study comfortably in the evenings, and even neighbours without access to electricity join them. Clementine dreams of opening a small shop to sell cooled milk and hot tea — a sign of how access to reliable power is reshaping her family’s future.

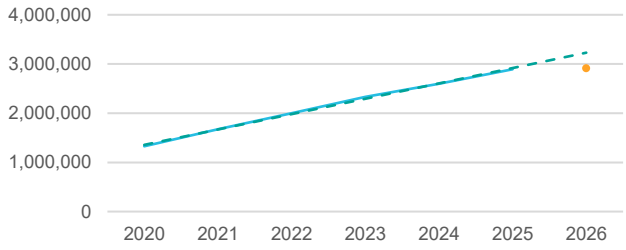
Senegal

Country facts	
Population	18.5 million
Human Development Index	Rank 169 / Index 0.530
UN Classification	Least developed country
Access clean cooking	35%
Access electricity	74%

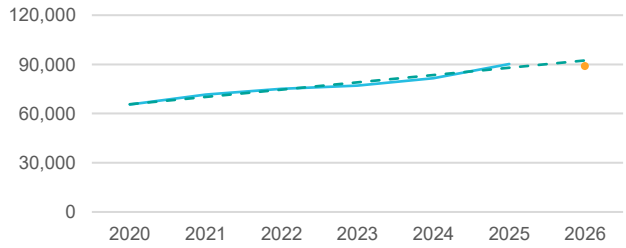
Project facts	
Project period	04.2009 – 12.2026
Budget	EUR 33,337,000
Core funding	EUR 26,586,000
Earmarked	EUR 6,751,000
Average annual turnover of the last three years	EUR 2,399,711
Implementing organisation	GIZ
Lead political partner	Ministère de l'Energie, du Pétrole et des Mines

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	2,892,400	2,913,400
People: Electricity	90,240	88,900
Social institutions	1,567	1,361
Micro-, small-, and medium-sized enterprises	1,258	1,456

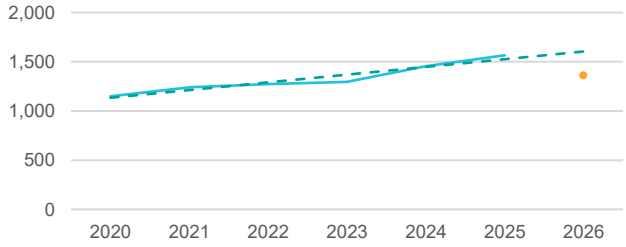
People with access to clean cooking



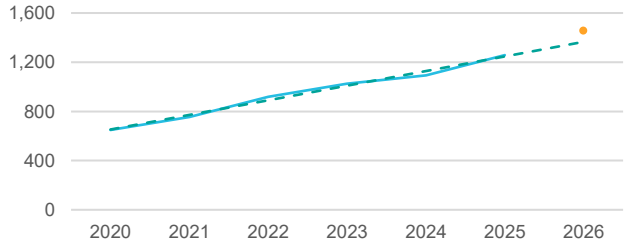
People with access to electricity

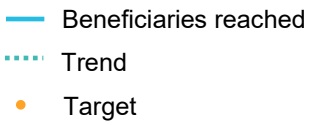


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





Senegal

Turning grid expansion into inclusive access to energy

Background information

EnDev supports Senegal's government in achieving its Nationally Determined Contributions (NDCs) to the Paris Agreement and its national strategy for universal electricity access. The project played a key role in the growth of the market of improved cookstoves from 2006 to 2020[19]. Building on this foundation, current efforts focus on biomass energy use in fish processing and traditional bakeries, piloting higher-tier cooking solutions, and business support for women's groups in cookstove production. In rural electrification, EnDev promotes inclusive grid access and continues to drive innovation and incubation of renewable off-grid energy solutions. It also implements the EU-co-financed action Pro-Accès supporting off-grid electrification and contributes to the Energising Health initiative equipping rural health facilities with solar-powered equipment. Since 2023, EnDev has aligned its activities with national universal access targets and "Leave No One Behind" principles, promoting inclusivity in energy access strategies.

Progress made in 2025

In the biomass sector, EnDev intensified its efforts to promote the productive use of biomass energy in the fish-smoking sector, a vital source of income for vulnerable women. By installing 40 additional Nopalé kilns for female fish-smoking cooperatives, in partnership with local NGOs, EnDev directly strengthened livelihoods while reducing fuel and smoke exposure. At the request of the Ministry of Fisheries, 68 previously unused kilns were upgraded and converted to meet Nopalé standards. This intervention significantly improved energy efficiency, enhanced product quality, and created better working conditions. Building on these achievements, EnDev expanded the productive use of biomass energy to the traditional bakery sector. An improved oven was developed and piloted its technical performance and operational suitability.

EnDev further achieved notable progress in expanding access to clean and reliable electricity, particularly for low-income and remote populations. In grid-connected villages, safe in-house electrical installations were provided, improving both safety and electricity availability for households with limited financial resources. Four second-generation mini-grids (two EU-cofinanced) were installed as demonstration models for an enhanced mini-grid concept, improving sustainability of mini-grid electrification. In addition, continued support to women's groups as solar lamp retailers further extended electricity access in remote localities, including to formerly displaced households. Business development services were provided to health committees equipped under the EnDev Health initiative, facilitating the integration of income-generating activities to fund long-term maintenance of provided solar equipment and vaccine cold storage. Additionally, clean energy developers received targeted coaching to create bankable business plans, improving their access to finance and investments.

Power beyond the pole: From grid arrival to real electricity access

When the electricity grid reaches a village, household connections are often taken for granted. Yet for many low-income households, the cost of safe in-house wiring prevents homes from being lit despite having power lines at their doorstep. To address this hidden barrier, EnDev financed safe in-house electrical installations for over 300 low-income households and social institutions across 11 grid-connected villages, effectively converting grid expansion into tangible household electricity access. The intervention was strongly welcomed by beneficiaries, local authorities, and public partners, confirming its relevance and effectiveness and clearly demonstrating that access is not achieved at the pole, but at the socket.

[19] From 2020 to 2025, this activity was continued through EnDev's associated project *Promotion of climate friendly cooking: Kenya and Senegal*, financed by BMZ and the Green Climate Fund (GCF).

Sierra Leone

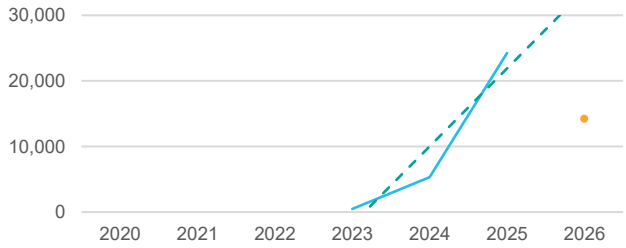
Country facts	
Population	8.6 million
Human Development Index	Rank 185 / Index 0.467
UN Classification	Least developed country
Access clean cooking	1%
Access electricity	36%

Project facts[20]	
Project period	07.2017 – 12.2026
Budget	EUR 10,600,000
Core funding	EUR 5,850,000
Earmarked	EUR 4,750,000
Average annual turnover of the last three years	EUR 2,762,197
Implementing organisation	GIZ
Lead political partner	Ministry of Energy

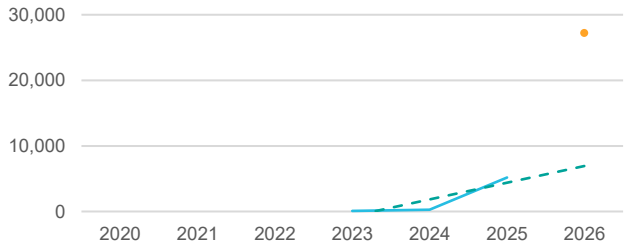
Achievements in energy access

Target group	Reached	Target
People: Clean cooking	24,250	14,200
People: Electricity	5,180	27,200
Social institutions	110	336
Micro-, small-, and medium-sized enterprises	2,229	68

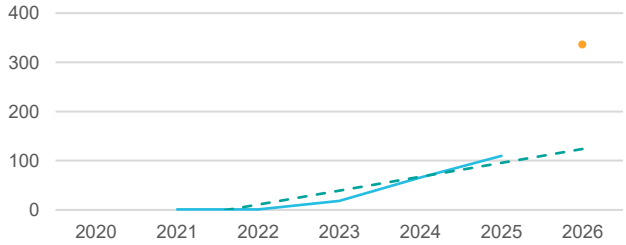
People with access to clean cooking



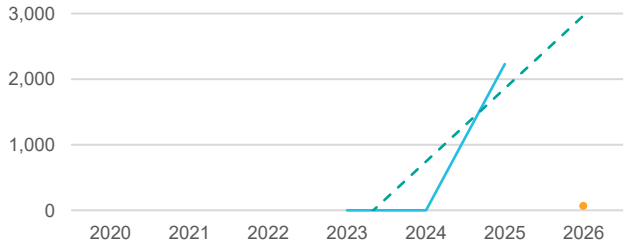
People with access to electricity

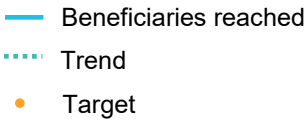


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





[20] Previously, Sierra Leone, Liberia, and Guinea were part of a multi-country approach. As of 07/23, Sierra Leone and Liberia are presented separately with individual indicative targets, whereas Guinea concluded in 12/2023.

Advancing clean energy access for enterprises, social institutions, and households

Background information

In Sierra Leone, energy poverty continues to constrain socio-economic development, especially in rural areas where modern energy services remain limited. This gap restricts productivity, growth of micro, small, and medium-sized enterprises, and incomes. The World Bank estimates that around 82% of households cook with biomass (about 63% fuelwood and 33% charcoal), driving deforestation and health risks from indoor air pollution[1]. Despite growing awareness, access to improved cookstoves, higher-tier technologies, and sustainable clean fuels remains limited, particularly for low-income households.

In many off-grid communities across Sierra Leone, households and micro-enterprises increasingly adopt decentralised solar technologies such as lanterns and solar home systems. These power small businesses and services, including phone charging and digital applications. Such uses highlight the role of the productive use of energy in maximising development impact by strengthening enterprise viability and local economies.

Progress made in 2025

In partnership with AVSI and the Renewable Energy Association of Sierra Leone (REASL), EnDev Sierra Leone achieved notable progress in 2025 in expanding access to modern energy services and clean cooking solutions for households, social institutions, and public facilities. These interventions contribute directly to national priorities on energy access, climate mitigation, and sustainable socio-economic development.

To strengthen local technical capacity and domestic value chains, the project continued to support artisan producers of improved cookstoves across the Western, Southern, and Eastern Provinces. This support has improved production quality, strengthened local value chains and enhanced market access for locally manufactured improved cookstoves. In parallel, EnDev supports REASL member companies in strengthening market development and distribution channels for renewable energy technologies across Sierra Leone. The project strengthened REASL's policy advocacy capacity, notably championing high-level engagement to secure a tax waiver on standardised imported solar products. This effort aimed to enhance affordability and stimulate increased market penetration among micro-, small-, and medium-sized enterprises and households.

Revisions in the cooperation structure and strategic adjustments to the implementation approach slowed household outreach and thus the target achievement for access to electricity. To address this, measures were introduced, including the results-based financing and Leave No One Behind (LNOB) approaches, to accelerate implementation and ensure the targets are close to being met. At the same time, EnDev plays an active technical and advisory role in national coordination platforms, including the Energy Working Group and the Mini-Grid Working Group, contributing to policy dialogue, regulatory development, and strategies that advance Sierra Leone's quest for universal energy access.

Promoting cleaner, affordable, and efficient energy and cooking solutions in Sierra Leone

To raise consumer awareness and stimulate demand for standardised solar home systems and improved cookstoves, EnDev Sierra Leone, with political and private sector partners, implemented targeted behaviour change and market activation campaigns. The interventions highlighted the socio-economic, environmental, and health benefits of modern energy solutions compared to traditional cooking practices, including three-stone fires. The strategy used multiple channels - REASL roadshows, radio talk shows, television series, point-of-sale promotions, and public service jingles in local languages - to improve consumer knowledge, increase product visibility, and build confidence in certified renewable energy and clean cooking technologies. This momentum supported business expansion, higher incomes, and job creation, including additional technical and administrative roles across Sierra Leone. The strategy significantly contributed to an increase in electricity access rates in 2025 compared to 2024.

[1] Open Knowledge Repository, World Bank

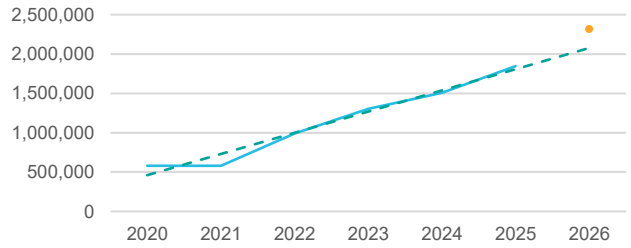
Tanzania

Country facts	
Population	68.6 million
Human Development Index	Rank 165 / Index 0.555
UN Classification	Least developed country
Access clean cooking	10%
Access electricity	48%

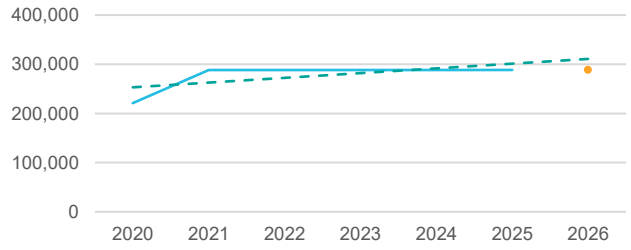
Project facts	
Project period	12.2012 – 12.2026
Budget	EUR 16,565,000
Core funding	EUR 16,565,000[21]
Earmarked	EUR 0
Average annual turnover of the last three years	EUR 1,235,992
Implementing organisation	SNV
Lead political partner	Ministry of Energy

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	1,846,300	2,317,000
People: Electricity	288,400	288,400
Social institutions	0	0
Micro-, small-, and medium-sized enterprises	220	220

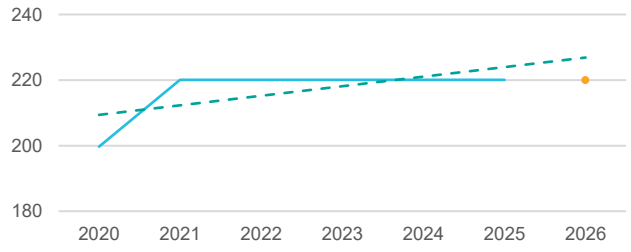
People with access to clean cooking

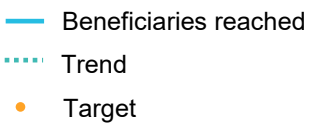


People with access to electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





[21] Incl. FCDO RBF

Tanzania

Strengthening the Matawi Stoves Association and implementing the exit strategy

Background information

Between 2023 and 2026, EnDev Tanzania focused its clean cooking interventions on three priority areas: improved cookstoves, eCooking, and strengthening the enabling environment.

The project significantly expanded access to improved cookstoves for peri-urban and rural households by building the capacities of skilled producers, improving product quality standards, and strengthening market linkages across the value chain.

With an active network of “Jiko Matawi” stove producers operating in 20 regions, the project enabled hundreds of thousands of Tanzanian households to access high-quality, affordable cookstoves, while establishing a sustainable supply chain to serve future demand.

In addition, by bringing together more than 100 producers under a common platform, the project supported the formation of a producer association—creating a unified voice for the sector.

Progress made in 2025

In 2025, EnDev Tanzania continued supporting active producers, eCooking suppliers, and Savings and Credit Cooperative Organisations (SACCOS) while developing and implementing an exit strategy. By December 2025, the project had worked with 117 active producers (52 men and 65 women) in 20 regions. To strengthen sustainable sector ownership, a consultant was engaged to build the capacity of Matawi Association leaders in leadership and financial management. In addition, under its behaviour change and communication intervention, EnDev Tanzania enabled twelve Clean Cooking Advocates to start selling eCooking appliances, diversifying products offered in their communities. EnDev Tanzania also continued strengthening six behaviour change and communication markets by supporting the formalisation of Clean Cooking Advocates as recognised freelancers and involving community leaders as part of the exit strategy.

For further eCooking promotion, EnDev Tanzania supported market uptake through its Clean Cooking Development Fund. Under the solar window, one company successfully scaled sales of its eCookers, while another is preparing to launch a PAYGO model in early 2026. Through a second Fund window, the project partnered with nine SACCOs and six eCooking suppliers to promote appliances such as pressure cookers, induction stoves, and rice cookers. As part of the exit strategy, the Tanzania Cooperative Development Commission was engaged, and SACCOs were strengthened in financial management and eCooking business promotion. While acknowledging the good progress achieved in the cooking sector, it is anticipated that the overall target may be moderately underachieved, mainly due to systemic market-access challenges of stove producers and security-related framework conditions.

On the enabling environment, EnDev Tanzania continued collaboration with Tanzania Renewable Energy Association and the Tanzania Association of Clean Cooking Stakeholders. In 2025, Tanzania Renewable Energy Association advanced advocacy for clean cooking incentives and tax exemptions on imported equipment, while Tanzania Association of Clean Cooking Stakeholders assessed local producers’ capacities and developed recommendations to support sustainable business growth.

Sustainably strengthening the Matawi association

With SNV’s support, a capacity gap assessment with leaders and members of the National Matawi Association clarified the association’s needs and informed a two-day training. The training equipped leaders with practical skills in governance, financial management, strategic planning, stakeholder engagement, and conflict resolution. It boosted confidence, improved communication across the membership, and helped shape a collective plan to revive the association. Further outcomes included a renewed commitment to consistent Matawi stove quality monitoring, and an agreement on a structured transition process. Further actions are planned for 2026 to continue strengthening the association’s institutional build-up in the long run.

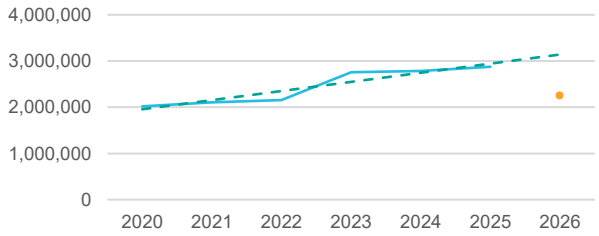
Uganda

Country facts	
Population	50.0 million
Human Development Index	Rank 157 / Index 0.582
UN Classification	Least developed country
Access clean cooking	2%
Access electricity	52%

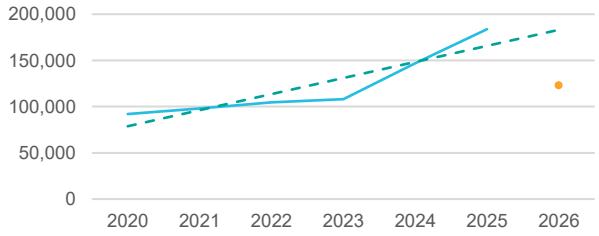
Project facts	
Project period	04.2009 – 12.2026
Budget	EUR 31,365,000
Core funding	EUR 23,274,000
Earmarked	EUR 8,291,000
Average annual turnover of the last three years	EUR 4,586,308
Implementing organisation	GIZ
Lead political partner	Ministry of Energy and Mineral Development (MEMD)

Achievements in energy access		
Target group	Reached	Target
People: Clean cooking	2,875,300	2,254,000
People: Electricity	183,800	123,000
Social institutions	1,725	1,401
Micro-, small-, and medium-sized enterprises	3,966	2,633

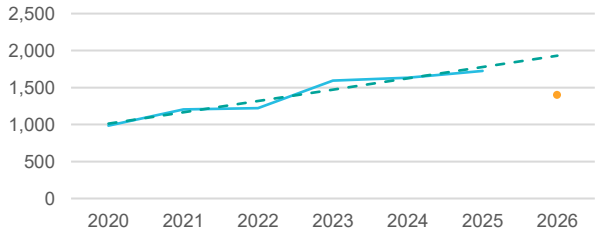
People with access to clean cooking



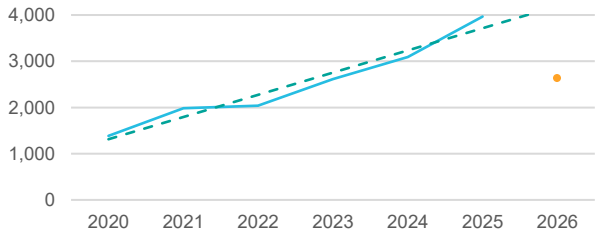
People with access to electricity

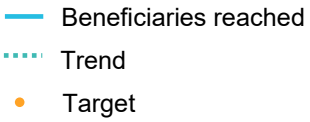


Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity





Uganda

Clean cooking: A transformative revolution

Background information

In Uganda, EnDev supports sustainable energy access by strengthening local energy markets, improving framework conditions for investments and expanding access to off-grid solar and clean cooking solutions, including higher-tier cooking technologies and the productive use of energy. EnDev Uganda focuses on inclusive nationwide access to modern energy for households, social institutions, and micro-, small-, and medium-sized enterprises. Special attention is given to underserved populations under the Leave No One Behind approach including refugees and host communities.

Progress made in 2025

Strategic results-based financing partnerships and reach of vulnerable groups: EnDev Uganda widened its implementer base by partnering with fund managers for targeted and inclusive results-based financing schemes. One partnership with Equity Bank Uganda Limited supported over 20 micro-, small-, and medium-sized enterprises in the solar and clean cooking sectors to unlock finance and reach more customers through the bank's network. To address Leave No One Behind (LNOB) objectives, EnDev partnered with the Private Sector Foundation Uganda supporting four micro-, small-, and medium-sized enterprises to extend sales and service to vulnerable, hard-to-reach areas such as islands and mountainous communities.

Enterprise capacity building: To build resilience and investment readiness, the solar and cooking components jointly implemented the third phase of their Business Development Support Programme (BDS 3.0). Updated training modules covered gender, equity and social inclusion, carbon markets, and climate finance, benefiting 19 SMEs. Furthermore, 80 solar technicians received targeted soft-skills training to close gaps in customer engagement, communication, etc. to improve service quality and market uptake.

Advancing the productive use of energy in displacement settings: EnDev promoted the productive use of energy in refugee and host communities through awareness initiatives and targeted enterprise support. 16 businesses received solar systems to demonstrate viable income-generating applications and strengthen local economic opportunities, thereby transforming livelihoods.

Strategic sector cooperation: Multi-stakeholder cooperation remains key for reaching national policy and climate goals and leveraging synergies. Efforts included aligning eCooking efforts with Modern Energy Cooking Services (MECS) and utilizing CLASP's expertise on results-based financing and standards. Collaboration with partners such as the World Bank, Global Off-Grid Lighting Association (GOGLA), and Global Electric Cooking Coalition (GeCCo) contributed to policy advocacy and evidence-based programming. This supported EnDev's efforts to contribute to market intelligence and further strengthen critical communities of practice across energy and related nexuses.

Bridging the gap: Building investment-ready, inclusive small-, and medium-sized enterprises

EnDev Uganda is tackling a primary barrier for local energy enterprises: the critical gap between business potential and investment readiness. "*Companies fail to go to higher levels in business opportunities because of limited skills, readiness and knowledge*," notes Sarah Babirye from Uganda National Clean Cooking Alliance (UNACC).

EnDev's BDS 3.0 programme addressed this by integrating rigorous business fundamentals with evolving priorities. By tailoring the BDS modules to small-, and medium-sized enterprise's needs, the enterprises were equipped to develop and refine innovative and inclusive business models, and investor pitch decks. The impact is tangible with these enterprises now better positioned for scale, with improved management skills and critical gender, equity and social inclusion understanding for investment mobilisation. These trained enterprises were directly connected with financiers, transforming capacity building into tangible opportunities for sustainable sector growth. To date, EnDev Uganda has trained over 30 small-, and medium-sized enterprises through its BDS initiatives (2021-2025).

Demand-Side Subsidies Component

Project Facts	
Project Period	08.2022 - 12.2026
Estimated Country Budget	EUR 5,291,000
Political Partner(s)	Ministry of Energy and Mineral Development
Fund Manager	Private Sector Foundation Uganda (PSFU)

Progress of the DSS component in 2025

The demand-side subsidy (DSS) pilot progressed steadily in expanding access to off-grid solar and clean cooking technologies for underserved populations in refugee settlements and host communities as well as rural, multi-dimensionally poor communities across Northern and Western Uganda.

Solar sales continued to show high uptake, with several companies achieving their targets and others nearing completion. While higher-tier cookstove sales progressed, improved cookstove (ICS) adoption remained slow despite the increased subsidy levels enacted to better reflect operational expenses and align with prevailing market prices. Based on these trends and the results of a mid-term review, targets were adjusted and additional measures to boost ICS sales identified. The mid-term review resulted in an overall increase in solar and higher-tier cooking targets, alongside a reduction in ICS targets.

Measures to accelerate ICS sales in the second half of the year included expansion to four additional districts (including two refugee settlements), onboarding of additional companies, provision of transport support, and removal of the customer eligibility tool to improve efficiency. Additionally, a dedicated market awareness campaign was conducted, which consisted of capacity-building for sales agents and local leaders on communication, dissemination of informational materials, and activities such as exhibitions and radio talk shows. These efforts resulted in increased ICS sales.

Verification processes were streamlined to expedite claim disbursements. To mitigate potential cash flow constraints and operational challenges – particularly for smaller companies – substantial technical support, training, and close coordination of the independent verification agencies was provided.

The DSS component was extended into 2026, with sales continuing in Uganda until March and programme closure planned for June 2026.

Alignment and collaboration with the World Bank

Engagement continued with the World Bank and the Uganda Energy Credit Capitalisation Company (UECCC), implementer of the World Bank-funded Electricity Access Scale Up Project (EASP), through regular exchanges on ongoing project activities. Efforts are underway to ensure systematic data sharing between the two projects to avoid double-counting and -subsidization of products, as well as cross-checking beneficiary data to avoid repeat subsidised sales to the same households.

In parallel, dedicated learning and transition discussions were initiated to inform phase-out planning and feed lessons learned into the ongoing implementation of the EASP.

KPI	Achieved	Target
# of people reached (total)	108,650	170,000
# of people reached with solar products	62,810	62,300
# of people reached with cooking products	45,830	107,700

DSS lessons learnt

Implementation highlighted persistent barriers to lower-tier cookstove adoption, despite extensive market awareness efforts. Stock shortages, high transportation cost, and linguistic barriers between sales agents and customers constrained active participation of cookstove companies.

Market penetration of lower-tier cookstoves also proved more challenging for refugee households. While the requirement to maintain a 50/50 sales ratio between refugee and host community households was achievable for higher-value solar products, companies faced greater difficulty reaching refugee households with ICS. These findings indicate the need for dedicated technical support for companies and more tailored distribution and marketing strategies. They also suggest that differentiated incentive structures between refugee and host community households may be warranted, in line with similar lessons from earlier initiatives in displacement settings.

For ICS companies, complex sales requirements proved challenging. The digital customer eligibility tool presented operational challenges for smaller companies, particularly given high upfront costs for device procurement and the need for staff training. In response, the requirement to use the tool was removed for ICS companies, and potential risks mitigated through strengthened verification procedures.

Phasing out

- Bangladesh *page 76*
- Cambodia *page 79*
- Laos *page 82*
- Nepal *page 85*

Energising Development in Bangladesh 2009 – 2025

A journey of impact: Legacy of the programme Energising Development in Bangladesh in advancing inclusive and sustainable energy access for a greener future

Country facts	
Population	173.6 million
Human Development Index	Rank 130 / Index 0.685
Access to clean cooking	28%
Access to electricity	100%

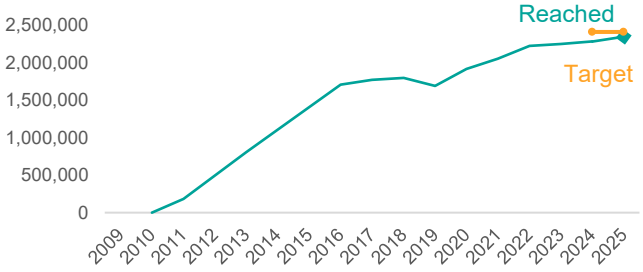
Project facts	
Project period	06.2009 – 12.2025
Budget	EUR 28,703,000
Core funding	EUR 26,653,640
Earmarked funding	EUR 2,049,360
Implementing organisation	GIZ
Lead political partner	Ministry of Power, Energy and Mineral Resources

Achievements in energy access

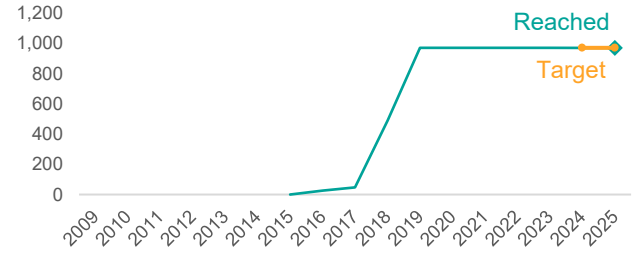
Target group	Reached	Target
People: clean cooking	**2,345,900**	2,409,300
People: electricity	**1,823,900**	1,824,700

Target group	Reached	Target
Social institutions	**970**	970
Micro-, small-, and medium-sized enterprises	**25,505**	22,818

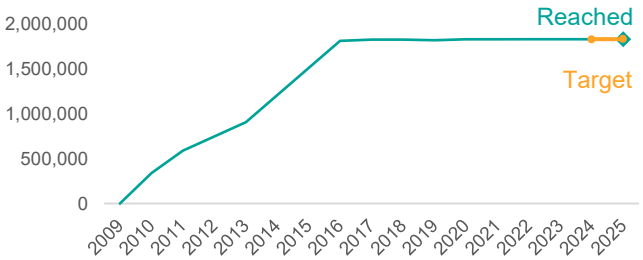
People with access to clean cooking



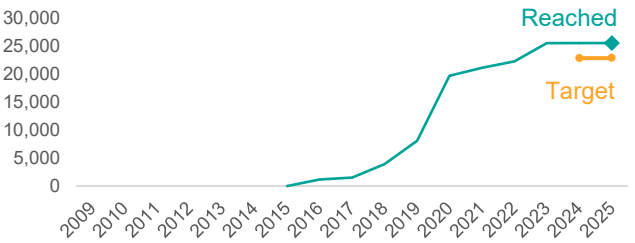
Social institutions with access to clean cooking or electricity



People with access to electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity



Methodological adjustments prior to 2016 may affect consistency of the data over time; accordingly, earlier values serve primarily to illustrate long-term trends.

Bangladesh – Phase out analysis

Sustaining Change: EnDev's Contribution to Bangladesh's Clean Energy Transition

Background information

Over the past 16 years (2009–2025), Energising Development (EnDev) programme has been contributing to advancing sustainable energy access in rural and peri-urban areas of Bangladesh. Working in partnership with Sustainable and Renewable Energy Development Authority (SREDA), Ministry of Power, Energy and Mineral Resources (MoPEMR), and civil society partners, EnDev has strengthened the clean cooking market, improved policy frameworks, and integrated a gender inclusive and Leave No One Behind (LNOB) approach across its interventions. The programme has strengthened local livelihoods, enhanced access to clean energy, reduced indoor air pollution, lowered CO_2 emissions, and advanced Bangladesh's journey toward a sustainable and inclusive energy transition.

In the following, an analysis of the achievements of EnDev in Bangladesh are presented, using the OECD DAC evaluation criteria: relevance and coherence, effectiveness, efficiency, impact, sustainability.

Relevance and coherence

Since 2009, EnDev has remained closely aligned with Bangladesh's national development priorities, addressing critical energy access challenges while promoting environmental sustainability and gender equality. The programme supported national strategies such as the Renewable Energy Policy (2008), National Action Plan for Clean Cooking (NAPCC) 2020–2030, and Energy Efficiency and Conservation Master Plan 2030, alongside global commitments under Sustainable Development Goal 7.

Through interventions on improved biomass cookstoves, biogas digesters, eCooking appliances, and decentralised solar solutions (solar lanterns, solar home systems, mini-grids, and solar battery charging station for eRickshaws), EnDev reached remote and vulnerable communities, including rural and indigenous populations. Its gender-transformative focus, training women and indigenous groups as technicians, entrepreneurs, and after-sales service providers, advances both gender equality and the LNOB agenda.

EnDev's integrated focus on energy access, environmental protection, and capacity development underscores its policy relevance and social coherence in Bangladesh's energy transition.

Effectiveness

Through its intervention in Bangladesh, EnDev has effectively translated its objectives into tangible, measurable results across multiple clean-energy technologies.

EnDev reached 2.35 million people with clean cooking solutions in partnership with more than 250 non-governmental organisations. These stoves have reduced fuel use, improved indoor air quality, and reduced women's workload. From 2023 on, EnDev shifted its focus towards higher-tier cooking, supporting the distribution over 23,000 eCooking appliances, including rice cookers and induction stoves, alongside working on national testing and standard-setting for eCooking.

Beyond expanding access to clean cooking, EnDev trained around 2,500 local technicians, over half of them women and about 400 from marginalised, indigenous communities, in installation, maintenance, and sales. In addition, EnDev reached over 25,000 rural people through behavioural change campaigns promoting clean cooking adoption. Furthermore, over 1100 institutional and commercial biogas digesters were installed, converting animal waste into clean cooking energy and organic fertilizer.

Through its electrification activities, EnDev reached 1.82 million people via solar home systems, mini-grids, and solar lanterns, providing electricity to remote and marginalised households and contributing to the government's goal of nationwide electrification.

EnDev also piloted a solar-powered battery charging station for eRickshaws with net metering system in Rajshahi. The model has been replicated by a private investor in Bogura - an innovative example of the productive use of solar energy in mobility.

Efficiency

EnDev Bangladesh has demonstrated strong efficiency through an integrated, multi-technology, and multi-partner implementation model. Building on earlier approaches, the programme has increasingly advanced a market-driven delivery model, engaging more than 5,000 sanitary shops to expand scalability, cost-effectiveness and sustainability.

Strategic partnerships with government agencies and private actors fostered shared learning, harmonised standards, and efficient scaling. The integrated portfolio, supported by adaptive monitoring and strong local networks, EnDev has consistently delivered high impact per invested resource, positioning the programme as a model of efficiency in Bangladesh's clean energy transition.

Impact

EnDev Bangladesh has made a profound difference in the lives of rural and marginalized communities by expanding access to clean and modern energy solutions. Thousands of women and local entrepreneurs have gained new income-generating opportunities through the production, sales, and maintenance of improved cookstoves and solar technologies. Female technicians, many from indigenous communities, have emerged as visible role models, inspired others and promoting social inclusion.

Through collaboration with the private sector, EnDev's eCooking initiative unlocked rural markets by establishing 53 new distributors in rural and peri-urban areas, strengthening last-mile access and accelerating the adoption of modern cooking solutions. The programme's pioneering pilots, such as peer-to-peer energy trading via decentralized solar mini grids and solar battery charging stations for eRickshaw, demonstrated scalable models for inclusive and sustainable energy access.

Environmentally, EnDev's interventions have mitigated 0.2 million tonnes of CO_2e emissions and saved 1.43 million tonnes of woodfuel, easing pressure on forests and contributing to Bangladesh's decarbonisation and clean energy transition.

Sustainability

Sustainability is systematically embedded across EnDev's interventions. The market-based delivery model improved cookstoves ensures continued availability without donor dependency. The creation and establishment of Bangladesh Bondhu Foundation as an independent institution have institutionalised the promotion of improved biomass cookstoves, including training and maintenance services, while also creating employment opportunities. Carbon-finance agreements and commercial partnerships ensure ongoing funding streams and have strengthened the continuation of clean energy access initiatives.

Through policy engagement and standards development with SREDA and Bangladesh Standards and Testing Institution, EnDev has embedded its approaches into national policy frameworks, ensuring long-term institutional sustainability. Its investments in building the capacities of female technicians and local enterprises have strengthened the foundation for lasting technical and social sustainability. However, long-term access to finance and large-scale adoption of eCooking will require continued coordination with financial institutions and government support.

Aduri's journey to self-reliance

In the small indigenous village of Karbala in Naogaon district, Aduri lived a life of hardship with her husband, Mongol Toppyo, a small-scale farmer, and their young daughter Rakhi. Managing the household on Mongol's modest income was never easy, yet Aduri dreamed of supporting her family and becoming self-reliant.

Her turning point came when she joined a training programme of EnDev on improved cookstove production and marketing delivered by ASHRAI. Through the training, Aduri gained new technical and business skills that soon transformed her life. Within five months after starting her business, Aduri had sold 332 cookstoves. With her earnings, she bought a cow, leased farmland, and began rearing goats, ducks, and chickens - creating multiple income sources for her family.

Today, Aduri is recognised as both a successful entrepreneur and a trusted advocate for clean cooking in her village. She ensures her customers use the stoves properly and understand their benefits for health and efficiency. What was once a life of daily struggle has become a story of resilience and empowerment - proof that with determination and opportunity, one woman can spark meaningful change for herself and her entire community.

Energising Development in Cambodia 2015 – 2025

How EnDev strengthened households, markets, and institutions in Cambodia

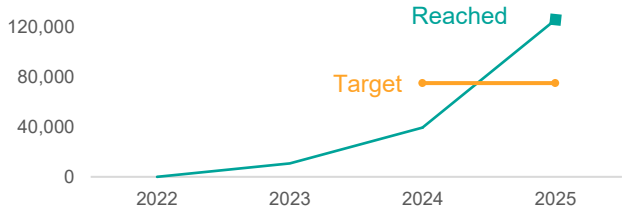
Country facts	
Population	17.0 million
Human Development Index	Rank 151 / Index 0.606
Access to clean cooking	58%
Access to electricity	95%

Project facts	
Project period	03.2015 – 12.2025[22]
Budget	EUR 6,891,000
Implementing organisation	SNV
Lead political partner	Ministry of Mines and Energy (MME)

Achievements in energy access

Target group	Reached	Target
People: clean cooking	**125,800**	75,000

People with access to clean cooking



[22] Previously, Cambodia, Laos, and Vietnam were part of a multi-country approach. Since 07/2023, each country was presented separately with individual indicative targets.

Changing cooking, changing lives

Background information

Since 2015, EnDev has supported clean cooking energy programming in Cambodia. Through SNV it applied market-based, and enabling-environment approaches to strengthen supply, demand, and policy for clean cooking. Key interventions included results-based finance and business development support. From 2020 onwards, the programme strongly focussed on demand activation, particularly through behaviour change communication to encourage the adoption of clean cooking applying the smoke-free villages approach.

EnDev continuously worked in synergy with other initiatives, including the World Bank for the National Cooking Energy Strategy, the EU/RVO on enterprise development, and with MECS on research and knowledge for electric cooking.

In the following, an analysis of the achievements of EnDev in Cambodia are presented, using the OECD DAC evaluation criteria: relevance and coherence, effectiveness, efficiency, impact, and sustainability.

Relevance and coherence

In Cambodia, the majority of rural households still rely on traditional fuels as primary source cooking. Household air pollution is among the country's biggest health risks, responsible for 12% of all deaths. Tests done at the Institute of Technology of Cambodia, show that cooking with firewood exposes cooks to smoke equivalent to 120 cigarettes per hour. Transitioning to clean energy such as electricity or LPG reduces these risks, eases the cooking burden, and reduces safety risks during firewood collection, especially for women and children.

Clean cooking has become wholeheartedly embraced in planning and budget allocation by local authorities, which is also evident from the initial EnDev support provided under the smoke-free village approach to 200 schools, 40 health centres, and 200 pagodas that further promote clean cooking at their institutions even after EnDev's involvement.

As a result of the advocacy efforts of EnDev and its efforts to share field realities with delegations of the Ministry of Mines and Energy, cooking energy has been placed in the Nationally Determined Contribution (NDC 3.0) as a new priority. This demonstrates how the smoke-free village approach established relevant and coherent linkages between micro and macro levels.

Effectiveness

To enhance effectiveness, the smoke-free village approach strengthened sub-national governments and built the capacities of key stakeholders enabling them to take independent roles in smoke-free village implementation. Local actors led activities and addressed community challenges themselves, while EnDev provided essential facilitation and support.

Data collection—such as surveys, energy audits, air-quality tests, and cooking-energy assessments—was increasingly carried out by local authorities. This improved their understanding of clean cooking issues and enhanced the quality of monitoring data. Lessons learned were used to refine implementation and guide scaling efforts, ultimately reaching over 125,000 people with access to clean cooking solutions in 487 villages. Of these, 384 villages were declared smoke-free, meaning that more than 85% of households now primarily use clean energy for cooking—up from a baseline average of 30%.

Efficiency

The smoke-free village programme empowered communities to train one another in the transition to clean cooking. Scaling up to 487 villages was achieved efficiently through peer-to-peer training and exchange visits between sub-national authorities. This approach not only contributed to the efficiency of the rollout but also fostered strong local ownership among those guiding new communities.

The programme proved highly cost-efficient, averaging just EUR 2 per person per year over a three-year project cycle. Interestingly, data showed that with growing practice and experience, the time required for villages to reach the smoke-free village declaration became significantly shorter, further reducing costs. Moreover, as the programme expanded, the cost per capita declined sharply.

Impact

Households purchased 33,246 electric stoves, while 38,060 traditional wood stoves were phased out. Combined cooking energy surveys and monitoring data show that average daily firewood use declined from 3.0 kg at baseline to 1.4 kg at endline.

This reduction reflects widespread adoption of clean stoves, delivering tangible environmental, health, and gender benefits—including lower household air pollution, alleviating pressure on natural resources and contributing to the prevention of land degradation, and decreased burdens on women and children responsible for collecting firewood.

Transitioning to clean cooking also saves time and allows multitasking during meal preparation. For many households, managing small shops or other income-generating activities has become considerably easier with clean cookstoves.

Sustainability

The smoke-free village approach focused on behaviour change and was designed for long-term self-sustainability. Households made their own decisions to purchase and use clean cookstoves. In total, 125,765 people reached (of which 16,462 classified as vulnerable) have transitioned to clean cooking. By fostering knowledge and understanding, EnDev has built a strong foundation that enhances household self-efficacy.

The absence of end-user subsidies further strengthened sustainability. However, at the final stage of the project, targeted support was provided to 1,579 low-income households that were cash-constrained yet already connected to the grid.

EnDev also developed and implemented a comprehensive phase-out strategy to ensure continuity beyond EnDev's direct support. A total of 198 representatives from five target districts participated in workshops to communicate the strategy, outline the transition process, and officially hand over responsibilities to district governors. As a result, district governments committed to allocating budget resources for continued smoke-free village interventions in the years to come.

At a national level, Cambodia's third Nationally Determined Contribution (NDC 3.0) reflects this momentum, prioritizing efficient and clean cooking and setting targets to expand access to clean cooking for 30% of households by 2030 and 60% by 2035.

Clean Cooking's role in promoting Gender Equality and Social Inclusion

Clean cooking is more than a shift in household energy use—it is a pathway to creating greater equity, health, and opportunity. It has a significant impact on Gender Equality and Social Inclusion (GESI) groups, particularly women, children, the elderly, and marginalized communities.

By transitioning from traditional biomass stoves to modern clean cookstoves such as advanced biomass stoves or electric cookers, families save time, reduce smoke-related health issues, and lower physical burdens of cooking and fuel collection.

Clean cooking also fosters safer, more inclusive environments for individuals with disabilities and older adults, enhancing dignity, independence, and well-being for everyone.

Voices from the community:

"During the rainy season, it is very difficult to collect and dry firewood. My children often cried because they were hungry while I spent a long-time making fire and cooking food."
Ms. Be Horm (smoke-free village beneficiary)

"My leg condition used to make it difficult to handle firewood and cook. But after switching to clean cookstoves, preparing our meals has become much easier. When my wife is busy with our child, I can now cook for the family without any trouble, and she no longer has to worry about collecting firewood. We are both very happy."
Mr. Sorn Saran (smoke-free village beneficiary)

Energising Development in Laos 2015 – 2025

Transforming household energy use through clean cooking innovation and inclusive market development

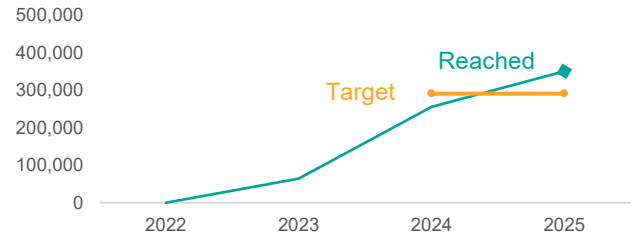
Country facts	
Population	7.8 million
Human Development Index	Rank 147 / Index 0.617
Access to clean cooking	28%
Access to electricity	100%

Project facts	
Project period	03.2015 – 12.2025[23]
Budget	EUR 3,780,000
Implementing organisation	SNV
Lead political partner	Ministry of Science and Technology (MoST)

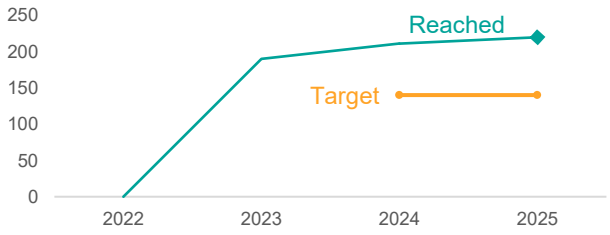
Achievements in energy access

Target group	Reached	Target	Target group	Reached	Target
People: clean cooking	**350,600**	290,900	**Social institutions**	**220**	140
Micro-, small-, and medium-sized enterprises	**1,562**	846			

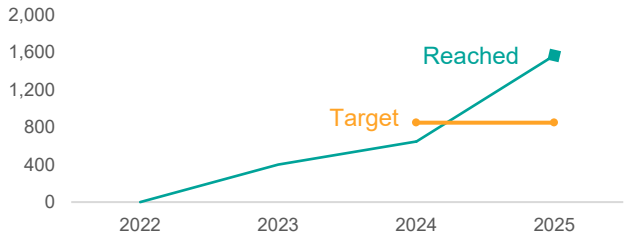
People with access to clean cooking



Social institutions with access to clean cooking or electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity



[23] Previously, Cambodia, Laos, and Vietnam were part of a multi-country approach. Since 07/2023, each country was presented separately with individual indicative targets.

Clean cooking is not a luxury, it is a basic human need

School students performing a role play to share the benefits of clean cooking during a Smoke-Free Village day event.

Background information

Since 2015, EnDev has been actively supporting market development for improved and clean cookstoves in Laos. Partnering with the local civil society organization, the Association for Rural Mobilization Improvement (ARMI), and the government organization, the Lao Women's Union (LWU), EnDev has stimulated demand through results-based financing mechanisms and end-user awareness campaigns.

From 2023 onward, EnDev has focused on underserved areas, prioritizing support for poor and marginalized communities as part of the 'leave no one behind' agenda. The initiative also promoted productive use of energy, by introducing improved cookstoves in social institutions and micro-, small-, and medium-sized enterprises, and created demand for electric cooking (eCooking) appliances through the 'Smoke-Free Village' social behaviour change communication approach.

These activities not only transformed smoky kitchens into clean and healthy spaces — they created opportunities for local employment and contributed to inclusive, sustainable development.

In the following, an analysis of the achievements of EnDev in Laos are presented, using the OECD DAC evaluation criteria: relevance and coherence, effectiveness, efficiency, impact, and sustainability.

Relevance and Coherence

Household air pollution remains one of the biggest health challenges in Laos, causing more than 6,000 premature[24] deaths annually. This is largely due to the widespread use of inefficient cookstoves burning biomass fuels, such as firewood and charcoal. Currently, around 90% of the population still relies on solid biomass fuels for cooking, which also contributes to land degradation. With electricity access exceeding 95% of households and the national grid becoming more stable, the transition to eCooking is increasingly viable and affordable.

The Government of Laos also recognizes improved and clean cooking as a national priority for restoring forests and addressing climate change through key policy documents such as the Nationally Determined Contribution (NDC 3.0) and the Tenth National Socio-Economic Development Plan (NSEDP 2026–2030). The EnDev clean cooking project directly contributed to these objectives by reducing reliance on unsustainable biomass fuels and promoting cleaner household energy.

Effectiveness

With EnDev's support, Laos has established a nationwide supply chain for improved cookstoves, including 35 producers, 17 distributors, more than 2,800 retailers, and six stove testing centres. Overall, this network has reached more than 300,000 people with ceramic improved cookstoves. Thereby, the project has supported with capacity building, demand activation, quality control, mechanisation of production facilities, and infrastructure improvement. To promote inclusive market development, financial incentives were provided to poor and marginalised households to help them purchase clean and improved stoves, including a school for children with disabilities that now cooks for 116 students.

By integrating social behaviour change communication, demand-side subsidies, and community-led action, the successful smoke-free village approach from EnDev Cambodia was replicated to promote eCooking in Laos, resulting in widespread appliance uptake within a short period and the establishment of a replicable model for scaling clean cooking adoption nationwide.

[24] Air pollution attributable deaths, household

Efficiency

Improved cookstoves (ICS) save about 30% of fuel compared to traditional stoves, and being low-cost, families recover their investment in just four months over a two-year lifespan. eCooking appliances can save more than 50% on fuel costs compared to biomass and LPG, but because of their higher purchase price, it takes around two years to recover the investment. This high upfront cost can be a barrier for many households, and subsidies and consumer financing are needed to help make these appliances more affordable.

Efficiency was gaining outreach through the partnership with the Lao Women's Union and local authorities, reaching many households at low cost. However, working with suppliers under the results-based financing mechanism was more difficult with many suppliers reluctant to take risks and invest their own resources upfront. In the future, projects should work with suppliers to design financial products together, so that risks and benefits are shared and suppliers are more engaged in promoting eCooking.

Impact

EnDev's work in Lao PDR has resulted in measurable progress in cleaner cooking adoption, livelihood creation, and policy recognition. For ICS users, fuel consumption has fallen and the frequency of forest visits for firewood collection has declined, reducing both household labour and pressure on natural resources. The sector also creates jobs and business opportunities, employing a substantial workforce in cookstove production centres, with women making up a significant share of those employed. The Smoke-Free Village pilot in 25 villages, resulted in a fourfold increase in households using clean cooking as their primary method.

EnDev has also helped translate community-level success into policy influence, with clean cooking now recognized as a national priority and integrated into several policies. With support from EnDev, Lao PDR became the first country to join the Global electric Cooking Coalition (GeCCo) and, with funding from the Modern Energy Cooking Services (MECS) programme and is now developing its first National eCooking Strategy.

"Clean cooking connects energy access with better livelihoods, stronger communities, and a healthier environment"
Sina Noy, ICS producer

Sustainability

ICS are now affordable, widely accepted and available in major parts of the country through the supply chain network developed. However, continued support from government and development partners for quality control, consumer education, and targeted financial incentives is needed to ensure inclusiveness and enhance sustainability.

The market for eCooking is at an early stage but promising. Expanding grid coverage, improving grid stability, and increased government prioritization creates a strong enabling environment. Addressing issues around affordability, misconceptions and after sales services will be critical to achieving long-term sustainability.

From factory worker to an aspiring entrepreneur founder: Sina's Journey

For the past ten years, Sina Noy — a 30-year-old mother of two from Savannakhet province — has worked in an improved cookstove (ICS) production centre. She entered as an unskilled labourer, but thanks to targeted training from EnDev, she steadily built technical and business skills. Today, Sina earns around USD 150 per month, providing her children with reliable access to school and giving her the confidence to save regularly.

While her husband also works in a cookstove factory, he has not received similar training and earns a lower wage. Seeing the difference that skills development made in her life, Sina now envisions a future beyond her employment. With a decade of hands-on experience, growing savings, and new marketing and production knowledge, she aims to launch her own ICS enterprise. Her goal is to partner with her husband, create local jobs, and supply affordable clean cookstoves in her community.

For Sina, the ICS sector offers more than income. It represents independence, dignity, and the chance to shape her family's future while contributing to cleaner energy access in her province.

Sina shaping stoves and shaping future (© SNV)

Energising Development in Nepal 2009 – 2025

Seventeen years of impact: The contribution of the programme Energising Development to energy access, inclusion, and sustainability in Nepal

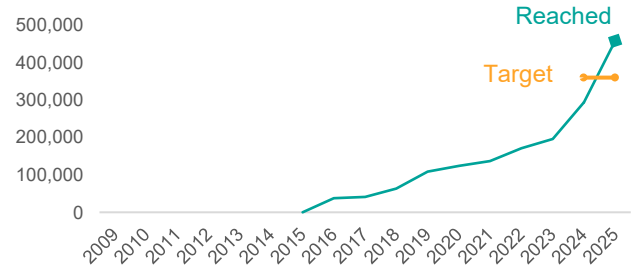
Country facts	
Population	29.7 million
Human Development Index	Rank 145 / Index 0.622
Access to clean cooking	43%
Access to electricity	94%

Project facts	
Project period	05.2009 – 12.2025
Budget	EUR 14,745,000
Implementing organisations	GIZ, Practical Action, SNV
Lead political partner	Ministry of Energy, Water Resources and Irrigation

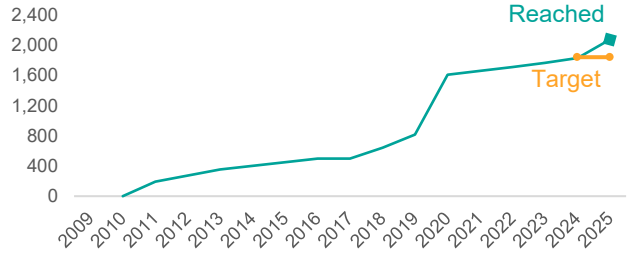
Achievements in energy access

Target group	Reached	Target	Target group	Reached	Target
People: clean cooking	**457,200**	359,200	Social institutions	**2,071**	1,838
People: electricity	**412,700**	393,200	Micro-, small-, and medium-sized enterprises	**4,853**	5,069

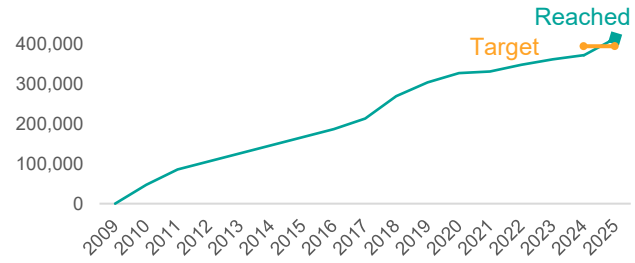
People with access to clean cooking



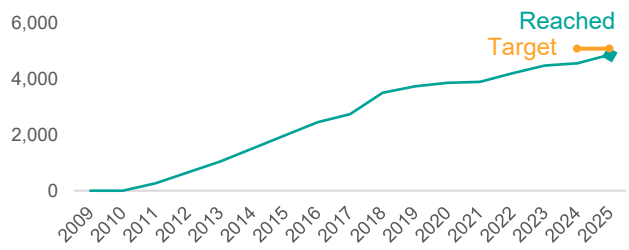
Social institutions with access to clean cooking or electricity



People with access to electricity



Micro-, small-, and medium-sized enterprises with access to clean cooking or electricity



Methodological adjustments prior to 2016 may affect consistency of the data over time; accordingly, earlier values serve primarily to illustrate long-term trends.

Nepal – Phase out analysis

From access to empowerment: the legacy of Energising Development in Nepal

Background information

Since 2009, the programme Energising Development (EnDev) has worked in Nepal in partnership with the Government of Nepal to advance energy access, particularly in rural and last mile communities. At the time, large parts of the population lacked access to electricity, and the majority of rural households depended on traditional biomass, with serious impacts on health, livelihoods, and the environment. Over 16 years, EnDev supported on- and off-grid electrification, contributed to sustainable clean cooking market, and built local capacities for the productive use of energy. As the programme concludes in 2025, it leaves a legacy of knowledge, partnerships, and best practices embedded in Nepal's long-term energy and development strategies.

In the following, an analysis of the achievements of EnDev in Nepal are presented, using the OECD DAC evaluation criteria: Relevance and coherence, effectiveness, efficiency, impact, sustainability.

Relevance and Coherence

When EnDev began working in Nepal, only 56% of rural households had electricity. National policies prioritized poverty reduction through rural electrification, later evolving into strategies such as the Rural Energy Policy, Renewable Energy Subsidy Policy, Nationally Determined Contributions, and Net Zero Strategy. EnDev aligned closely with these frameworks—partnering with Nepal Electricity Authority to extend grid via a revolving fund for Community Rural Electrification Entities (CREEs) and with the Alternative Energy Promotion Center (AEPC) to promote micro-hydro power for last-mile off-grid areas. Today, national electrification is nearly complete, though supply quality remains a challenge.

In line with Nepal's clean cooking strategies, EnDev supported sustainable market development for improved and electric cookstoves by working with local governments and private actors to reduce barriers to scale-up. These efforts reduced dependence on firewood, advanced the adoption of cleaner and more efficient cooking technologies, and lowered indoor air pollution among vulnerable groups, particularly women and children.

Aligned with Nepal's priorities of rural economic growth, job creation, and inclusive development, EnDev emphasised the promotion of the productive use of energy through capacity building, skill-based training, and concessional loans.

Effectiveness

EnDev Nepal has been highly effective in expanding sustainable energy access, consistently meeting targets while promoting gender inclusion, productive use of energy, and climate co-benefits. By aligning with national policies, adapting to rural realities, and empowering local communities, the programme directly supported the Government of Nepal's electrification agenda. Its innovative revolving fund bridged financing gaps for grid extension and micro-hydro projects, fostering community ownership, long-term sustainability, and scalable impact. As a result, 412,700 people gained reliable electricity access, underscoring EnDev's pivotal role in expanding sustainable energy access in Nepal.

Through its Leave No One Behind interventions (on-grid, mini-grid, and clean cooking), EnDev provided sustainable energy to over 55,000 poor and marginalized people between 2023 and 2025, ensuring inclusivity under the national energy access initiatives.

EnDev also strengthened the productive use of energy through concessional loans, innovative financing, and targeted capacity-building, enabling rural entrepreneurs and cooperatives to expand production, increase incomes, and create local employment.

In the clean cooking sector, EnDev delivered modern biomass and electric cooking solutions to 457,200 people, reducing reliance on traditional fuels and cutting greenhouse gas emissions. By mitigating private sector risks and supporting market development, the programme advanced higher-tier technologies, socio-economic development, women's empowerment, and climate-friendly solutions.

Efficiency

Energy access was delivered efficiently through lean operational structures, strategic planning, and effective cost-sharing with implementing partners. Central coordination, and decentralised execution, allowed wide outreach while keeping costs low. Innovative financing mechanisms such as the revolving fund and results-based financing further enhanced efficiency by mobilizing local resources, encouraging accountability, and ensuring long-term financial sustainability. These combined measures demonstrate a high level of operational and financial efficiency, setting a strong example within the broader energy access sector.

Impact

From 2009 to 2025, EnDev advanced the government's goal of affordable, sustainable, and climate-friendly energy by expanding access in underserved regions. Through capacity building of local utilities, user groups, and cooperatives, it improved rural energy management and service delivery while promoting productive energy use to strengthen CREEs' sustainability. These efforts have transformed rural energy access and driven inclusive socio-economic growth.

In last-mile areas, EnDev strengthened local markets for pico-, micro-, and mini-hydro projects and clean cooking solutions by supporting private sectors, supply chains, and quality assurance. Promoting improved biomass, metallic hood, and electric stoves reduced fuelwood use, improved health, and empowered women in awareness, distribution, and after-sales services.

EnDev also contributed to key policy milestones such as the Biomass Energy Strategy 2017 and national quality standards for electric cooking appliances, laying the foundation for wider adoption and assurance of quality standards.

EnDev enabled rural entrepreneurs, cooperatives, and associations to expand income-generating activities via improved energy access. These initiatives increased productivity, enhanced livelihoods, and strengthened women's financial independence. By building the capacity of supply-side actors (private sector and local governments) and demand-side actors (communities and cooperatives), EnDev positioned the productive use of energy as a key driver of sustainable energy access and rural socio-economic transformation, supporting national poverty reduction and inclusive development goals.

Collectively, these interventions transformed Nepal's rural energy landscape, expanding access, strengthening markets, empowering women, and advancing national clean energy and climate goals.

Sustainability

EnDev's approaches have been institutionalised within government systems, market structures, and partner organizations, ensuring long term sustainability. Rural and last mile electrification models have been adopted by AEPC, Nepal Electricity Authority, NACEUN, and rural utilities, and are now embedded in national policies.

Collaboration with local governments, commercial banks, and private sector actors enhanced knowledge, reduced risk perceptions, and encouraged greater investment in renewable energy. The grid extension Revolving Fund and micro-hydro debt fund, now managed by NACEUN and AEPC respectively, continue to support community electrification and productive use of energy.

EnDev strengthened Nepal's clean cooking sector by supporting policy development, setting standards, and facilitating markets for higher-tier technologies. By promoting commercialization, improving supply chains, and empowering local actors, it built a strong foundation for long-term adoption of clean cooking solutions, driving sustained energy access and inclusive socio-economic growth.

Grid-connected micro hydro: Revitalizing rural energy through EnDev support

As Nepal's national grid expanded, many of the country's 2,500 micro-hydro plants risked becoming stranded assets due to limited local technical capacity. In Baglung District, EnDev transformed this challenge into an opportunity by supporting the Nishi Khola II Micro Hydro Cooperative to connect its 100 kW system—supplying 1,330 households—to the national grid.

Through EnDev's support, communities can now both consume and sell electricity, strengthening energy security, reducing costs, and generating revenue for maintenance. EnDev also trained local operators and developed a practical operation and maintenance manual, ensuring safe and sustainable grid integration.

This joint effort by the community, government, and EnDev is expected to improve energy security and quality of life in Baglung's rural communities by providing reliable and sustainable electricity access.

Abbreviations

ADES	Association pour le Développement de l'Energie Solaire, Switzerland
AVSI	Association of Volunteers in International Services
BMZ	German Federal Ministry of Economic Cooperation and Development
CHF	Swiss franc
CO_2e	Carbon dioxide equivalents
DFAT	Australian Department of Foreign Affairs and Trade
DGIS	Netherlands Directorate-General for International Cooperation
DSS	Demand-side subsidy
eCooking	Electric Cooking
ECOWAS	Economic Community of West African States
EnDev	Energising Development
EU	European Union
EUR	Euro
FCDO	UK Foreign, Commonwealth & Development Office
GCF	Green Climate Fund
GGF	Green Genset Facility
GBP	British Pound
GEAPP	Global Energy Alliance for People and Planet
GeCA	Global eCooking Accelerator
GeCCo	Global electric Cooking Coalition
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GOGLA	Global Off-Grid Lighting Association
ICEIDA	Icelandic International Development Agency
KOFIH	Korea Foundation for International Healthcare
LNOB	Leave No One Behind
MSME	Micro-, small-, and medium-sized enterprises
NDC	Nationally Determined Contributions
NOK	Norwegian Krone
Norad	Norwegian Agency for Development Cooperation

PV	Photovoltaic
RBF	Results-based financing
ReCCAWA	Regional Clean Cooking Action for West Africa
RVO	Rijksdienst voor Ondernemend Nederland
SDC	Swiss Agency for Development and Cooperation
SCCIF	Smart Communities Coalition Innovation Fund
SDG	Sustainable Development Goal
SEE-CC	Strengthening the Entrepreneurial Ecosystem for Clean Cooking
SEFFA	Sustainable Energy for Smallholder Farmers
SEforALL	Sustainable Energy for All
Sida	Swedish International Development Cooperation Agency
SIINC	Social impact incentives
SME	Small- and medium-sized enterprise
SNV	Stichting Nederlandse Vrijwilligers / Netherlands Development Organisation
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USD	United States Dollar
WHO	World Health Organization

Please note that the abbreviations used in the Annex C. (Detailed country project profiles and implementation status) are not listed here but are explained on the corresponding page.

Funded by:

german cooperation
DEUTSCHE ZUSAMMENARBEIT

Ministry of Foreign Affairs of the Netherlands

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Schweizerische Eidgenossenschaft
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Swiss Agency for Development and Cooperation SDC

Coordinated and implemented by:

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Netherlands Enterprise Agency

Published by:
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

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As of April 2026

Photos:
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