

Energising Development (EnDev) Ethiopia



Country	Ethiopia
Technology	Pico PV systems, Solar Home System, Solar Mini-Grids, Nano-Grid, Grid Densification, Improved Cookstoves, higher tier biomass stoves, e-cooking.
Project period	EnDev I: 06/2005 – 12/2009 EnDev II: 01/2010 – 06/2019 EnDev III: 07/2019 – 06/2023 EnDev IV: 07/2023 - 12/2025
Budget	€ 52,111,000
Partners	Ministry of Water and Energy (MOWE); Ministry of Health; Ethiopian Environmental Protection Authority; Ethiopian Petroleum and Energy Authority (PEA); Ethiopian Electric Utility (EEU); Regional Energy Bureaus; Regional Health Bureaus; Private Sector Association in solar PV and clean cookstove sector; Ethiopian Clean Cooking Alliance; Ethiopian Standards Agency; Ethiopian Women in Energy Association.
Objective	EnDev Ethiopia aims to establish self-sustaining markets for sustainable, affordable, and clean energy supply. Low-income households, social facilities and small to medium-sized enterprises gain sustainable access to modern energy technologies and services, focusing on renewable energy and clean cooking solutions. This has direct and indirect positive influences on the structure and framework improvement of the Ethiopian energy market.
Achievements until December 2023	More than 1,400,000 households have gained access to clean cooking. Additionally, over 894,000 households now have access to electricity. Furthermore, more than 3,400 social institutions and 7,200 enterprises have benefited from access to either clean cooking or electricity.

Background

Ethiopia is endowed with abundant renewable energy potential for sustainable electricity generation and to provide clean thermal energy for modern cookstoves. Nevertheless, it remains one of the countries with the lowest energy consumption in the world. The Ethiopian National Electrification Programme (NEP 2.0) estimates that about 56 percent of the population lacks access to adequate and reliable electricity services. Of these, 35 percent should be reached through off-grid solutions. The lack of access to energy limits the country's potential for economic growth and social development.

The rural population knows little about the advantages of access to clean cooking. Over 90% of Ethiopia's cooking fuels is derived from unsustainable charcoal or collected firewood. This leads to increasing deforestation and, consequently, soil erosion, as well as health problems such as respiratory tract diseases due to inefficient combustion and related smoke and dust. Ethiopia may only be able to improve this situation by expanding the use of energy-efficient, improved, and clean cooking solutions.

Project Approach

The Energising Development (EnDev) programme is a joint impact-oriented global programme funded by Germany, the Netherlands, Norway, and Switzerland, which currently operating in 20 countries including Ethiopia. Ethiopia. EnDev Ethiopia has also received additional co-funding from Ireland, the Korea Foundation for International Healthcare, RVO, and the European Union. EnDev Ethiopia is so far the largest EnDev portfolio facilitating self-sustaining markets with modern energy solutions. EnDev cooperates with governments, NGOs, and the private sector to achieve its programme objective.

EnDev Ethiopia will continue to focus on providing access to affordable, reliable, sustainable, and modern energy solutions to the population across Ethiopia's vast off-grid rural areas. Energy access solutions will be provided through interventions from clean cooking and electrification. The interventions are based on four types of services: (1) energy efficient and improved cookstoves/ICS and higher tier clean cookstoves/ e-cooking, (2) solar lanterns (PicoPV), solar home/stand-alone systems, and (3) community-based, off-grid electricity supply through photovoltaic mini-grids, nano grids with Productive use of Energy (PuE), (4) on grid solutions through electricity grid densification. Clean cookstove producers and solar retailers receive technical and business development support (BDS) training, comprehensive market development support as well as consumer subsidy. Government Agencies are also supported in enabling environment improvement including organisational development, policy and standard development and enforcement, as well as end-of-life management (e.g. battery recycling).

Outcomes

- In the year of **2023**, approximately 137,000 households, gained access to clean cooking energy, while close to 91,000 households gained access to electricity. Additionally, **1,711** social institutions and almost **1,512** enterprises gained access to one or both forms of energy.
- EnDev, in collaboration with partner organizations, has installed **5 solar mini-grid** power generation systems to electrify **five off-grid villages**. These systems have a capacity of **685.5KWpPV and 1425kWH** battery capacity, enabling over **4000** connections.
- More than **800** small-scale producers of renewable energy products of Electrification and Improved Cookstoves (ICS) established their business in 330 districts in more than **7** regions.
- In 2023 more than 11,364 households have gained access to clean cooking energy and over 6,107 households have gained access to electricity for identified **LNOB+ groups**. Additionally, EnDev Ethiopia has provided **294** Stoves to MSMEs and **336** Social Institutions that Serve the Productive Safety Net Programme (PSNP) population of Ethiopia.

Lessons Learnt and Outlook

Even though EnDev-trained producers and retailers sold many cookstoves and solar appliances, markets are still highly dependent on subsidies and promotional activities. A comprehensive off-grid energy access strategy is also needed to synergize government ambition with private sector development. EnDev therefore strives to increase synergies through enabling cooperation among all relevant actors, including through Energy Development Partners Group

(EDPG), co-steered together with Ministry of Water and Energy (MOWE).



Women Spearheading Energy Access Provision

Bezawit Mekonnen, a trailblazer in the energy sector, was honoured with the Influential Women in Energy Award Ethiopia 2023 for her outstanding contributions to create universal access to energy in Ethiopia. Bezawit was one of the awardees from Ethiopian Women in Energy Association (EWiEN) (to bring forth women champion in the energy sector.

Over the years, she has spearheaded initiatives that have brought electricity to rural areas, touching the lives of countless communities. Her work in designing and coordinating the installation of electricity in over 2000 towns, including health centres and schools, has been instrumental in improving the quality of life for many.

Currently, as the project coordinator for the World Bank funded ADELE project, she is dedicated to enhancing more reliable electricity for all rural residents. She excelled in technical roles and actively promoted gender equality by encouraging and supporting women's participation in the energy sector on site activities and leadership.

The recognition presented upon Bezawit at the awarding ceremony highlights the importance of women's visibility and participation in the energy sector. As one of the initiatives supported by GIZ EnDev Programme Ethiopia, Bezawit and her fellow awardees are leading the charge towards universal energy access, with a commitment to putting Ethiopian women at the forefront of this transformative journey on energy sector development.

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