



Sustainable Energy Markets

SNV applies its Sustainable Energy Markets product to increase access to affordable, reliable, sustainable and modern energy technologies and services by supporting the development of sustainable markets. This has positive impacts on education, health, poverty, gender and social inclusion, and the environment while at the same time, mitigating climate change. It also supports adaptation to climate change through productive use solutions and decentralising energy provision which makes populations more resilient to the negative effects of climate change. SNV applies this market-based approach in biodigesters, clean cooking and off-grid electrification.

The challenge

Approximately 1 billion people worldwide lack access to electricity and rely on dangerous, expensive and environmentally unfriendly sources of lighting such as kerosene lights, candles and flashlights. Also, almost 3 billion people depend on the traditional use of biomass for cooking which has detrimental economic, social and health impacts, especially for low-income households.

According to the World Health Organization, household air pollution from cooking is the single most important environmental health risk worldwide. Women and children suffer most from the adverse impacts of energy poverty as they are

the ones who spend the most time in the home and are responsible for cooking and gathering wood.

SNV's work in energy is primarily guided by the Sustainable Development Goals (SDGs) in particular SDG 7, which aims to achieve universal access to affordable and sustainable energy by 2030. Energy access also contributes to other SDGs, notably: SDG 1 (no poverty), SDG 2 (zero hunger), SDG 3 (good health and well-being), SDG 5 (gender equality) and SDG 13 (climate action).

Our approach

Combining global state-of-the-art expertise with local know-how, SNV offers solutions for energising households, businesses and social institutions, both for domestic and productive use:

- Biodigesters provide sustainable fuel reducing health hazards when used for cooking, decreasing carbon emissions and leading to time and cost savings for households, in particular for women.
- Bio-slurry generated from digesters provides a potent organic fertiliser for sustainable agriculture.
- Clean cooking solutions focus not only on improved stoves but also on clean fuels, reducing health hazards. Households often use a mix of cookstoves. We support them in moving to a cleaner mix.
- Solar and other renewable off-grid solutions for electrification include a wide range of technologies and services such as solar lanterns, solar home systems and mini-grids.

Barriers to the market development of energy access are highly contextual. SNV's interventions may address issues at the demand side, supply side and enabling environment, including access to finance and quality assurance. To achieve a sustainable **demand**, SNV focuses on consumer education of the different technologies and service options available, their benefits and costs. Demand moves beyond lighting and cooking solutions, and now includes entertainment (radio, TV), household appliances and increasingly, the productive uses of energy. At a household level, the focus lies on behavioural change communication that increases the effectiveness and impacts of adopting technologies and services.

To build a sustainable **supply**, SNV provides advice and smart incentives to private sector suppliers along value chains, from manufacturing to operation and maintenance, sales and after-sales services. SNV supports the design of creative distribution models. We provide suppliers with business advice and market intelligence and use data analysis to enable quicker adoption of technologies and services among customers with a low ability to pay.

To improve the **enabling environment** for sustainable uptake of energy technologies

2019 Results



More than 1,200,000 people gained or improved access to energy



Over 12,824 people gained sustainable energy market related employment



More than 600,000 people in Kenya alone gained access to solar energy



In Tanzania, more than 200,000 people were reached with improved cookstoves and 63,000 with solar energy

and services, SNV supports governments in the development of conducive policies and regulatory frameworks, effective implementation of policies and enforcement of regulations. SNV offers institutional capacity development, empowers communities and civil society organisations to advocate for favourable policies and better provision of services, and works with sector alliances to facilitate sector transitions.

To increase cooperation and avoid duplication of interventions, SNV facilitates multi-stakeholder consultations between all relevant stakeholders in the energy sector.

To ensure **quality and reliability** of technologies, SNV supports standard-setting and quality control, as well as adherence to (inter)national quality standards, warranty and after-sales services schemes. Performance tests by local testing centres ensure that technologies provide a continuous and reliable service to the end-users.

To increase access to and supply of **affordable finance** for both end-users and private sector suppliers, SNV works together with financial institutions and community-based financing structures. SNV trains financing entities on the use of consumer financing schemes including Pay-As-You-Go models. SNV implements early-stage grants and Results-Based Financing (RBF) schemes to de-risk commercial investment in the emerging markets where we operate.

Our experience

BRILHO Energy Africa Programme | 2019 - 2024 | €26.5 million | UK Aid

BRILHO will catalyse Mozambique's off-grid energy market in order to provide clean and affordable energy solutions to the country's off-grid population. BRILHO's overall goal is to improve and increase energy access for people and businesses, leading to money-saving, better well-being and livelihood opportunities for the low-income population. The programme is expected to increase energy access in Mozambique for 1.5 million people. The technologies incorporated are Improved Cooking Solutions, Solar Home Systems and Green Mini-Grids.

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Kenya Off-Grid Solar Access Project (KOSAP) | 2018 - 2023 | €44 million | World Bank

KOSAP is a flagship project of the Kenyan Ministry of Energy, financed by the World Bank and aims to provide electricity and clean cooking solutions in the remote, low density, and traditionally underserved areas of Kenya. KOSAP aims to deliver 250,000 stand-alone solar home systems, and higher tier clean cooking solutions to 150,000 households. SNV in partnership with SunFunder is managing Results Based Financing (RBF) and Debt Facilities to provide incentives to private sector companies to establish operations and to sell solar and clean cooking solutions in the project areas.

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Energising Development (EnDev) | 2012 - 2021 | €31 million | Multi-donor

SNV is an implementing partner of the global Energising Development (EnDev) programme, managed by GIZ and RVO. Through EnDev, SNV has implemented projects in off-grid electrification and clean cooking across 12 countries in Asia, East and Southern Africa and West Africa.

An example is the market development project for improved cooking appliances in Mali. The project will deliver 90,000 additional improved and clean stoves, out of which 40,000 in Bamako and 40,000 in the selected regions. Also, SNV will gather market intelligence to initiate the development of a cleaner and more efficient sector in productive use and supports the Government's desire to transition towards alternative cooking fuels.

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Our experience

Biogas Dissemination Scale-Up Programme (NBPE+) | 2017 - 2022 | €21 million | European Union

The overall objective of NBPE+ is to improve the living standards of farmers and their families, in the Ethiopian regions of Afar, Amhara, Benishangul-Gumuz, Gambela, Oromia, SNPPR, Somali and Tigray while reducing the over-exploitation of biomass and greenhouse gas emissions

The programme aims to provide 180,000 people with biogas as clean energy (mainly used for cooking) and bio-slurry as high-value fertiliser.

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Voice for Change Partnership (V4CP) | 2016 - 2020 | €34.6 million | Netherlands Ministry of Foreign Affairs

Civil society organisations (CSOs) represent the interests of crucial groups and communities such as female entrepreneurs, and small-holder farmers. SNV works to strengthen civil society in Kenya, Rwanda, Burkina Faso, Ghana, Honduras and Indonesia to effectively voice their views and contribute to structural change.

By collaborating with national and international partners, different levels of governments, and the private sector, CSOs contribute to improving the 'enabling environment' and ensuring the interests of low-income and marginalised communities are included in government and business policies and practices.

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About SNV

SNV Netherlands Development Organisation (SNV) is a not-for-profit international development organisation that makes a lasting difference in the lives of people living in poverty by helping them raise incomes and access basic services. We focus on three sectors and have a long-term, local presence in over 25 countries in Asia, Africa and Latin America. Our team of more than 1,300 staff is the backbone of SNV.

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