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Gender and energy country briefs

KENYA

Energy is a critical enabler in reaching development goals. However, the benefits of increased access to modern and cleaner energy services often fail to accrue evenly to men and women. The African Development Bank and ENERGIA recognise the need to prioritise policy action in the field of gender and energy to meet the international Sustainable Development Goals (SDGs). This country brief on gender and energy in Kenya is one in a series to support equality of access and use of energy by women and men through evidence-based initiatives.

Kenya's national development blueprint, Vision 2030, recognises energy as a core enabler to fight poverty and a catalyst for the Sustainable Development Goals. With a Gender Index close to the average for the African continent, gender gaps remain a barrier to equal benefits and energy access for all. To achieve this, deliberate efforts need to be made to ensure inclusivity and responsiveness in all programmes and policies.

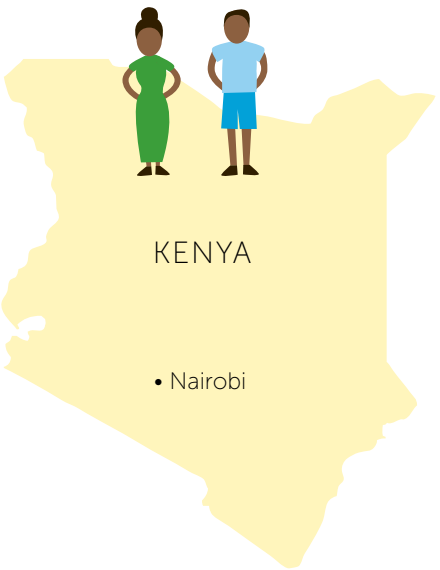
This brief provides insights into the current status of gender and energy in Kenya through a policy analysis. It presents key data, an overview of the institutional set-up focusing on gender and energy, and an analysis of barriers and opportunities based on expert review of policy documents and consultations with key stakeholders. This leads to a set of recommendations for effective integration of gender in energy planning, implementation and monitoring.

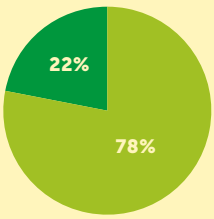
Read further:

1 Gender and energy statistics

General country statistics

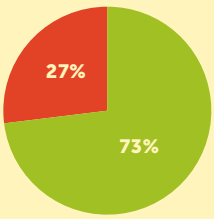
- The total population is 47.6 million.[1]
- 73% of the population live in rural areas.
- 78% of the population are under 35 years.
- 46% of the population live below the poverty line of USD 1 per day.
- 32.4% of households are headed by females.
- Since 2020, Kenya has been categorised as a middle-income economy, with a stable macro-economic growth of around 5% per annum.





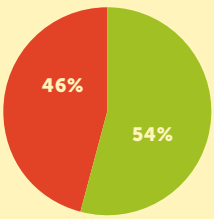
Age

- < 35 years
- > 35 years



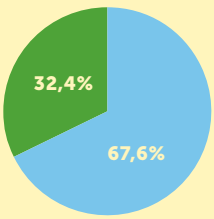
Residence

- rural areas
- urban areas



Income, related to poverty line (USD 1 per day)

- above poverty line
- below poverty line



Head of household

- male
- female

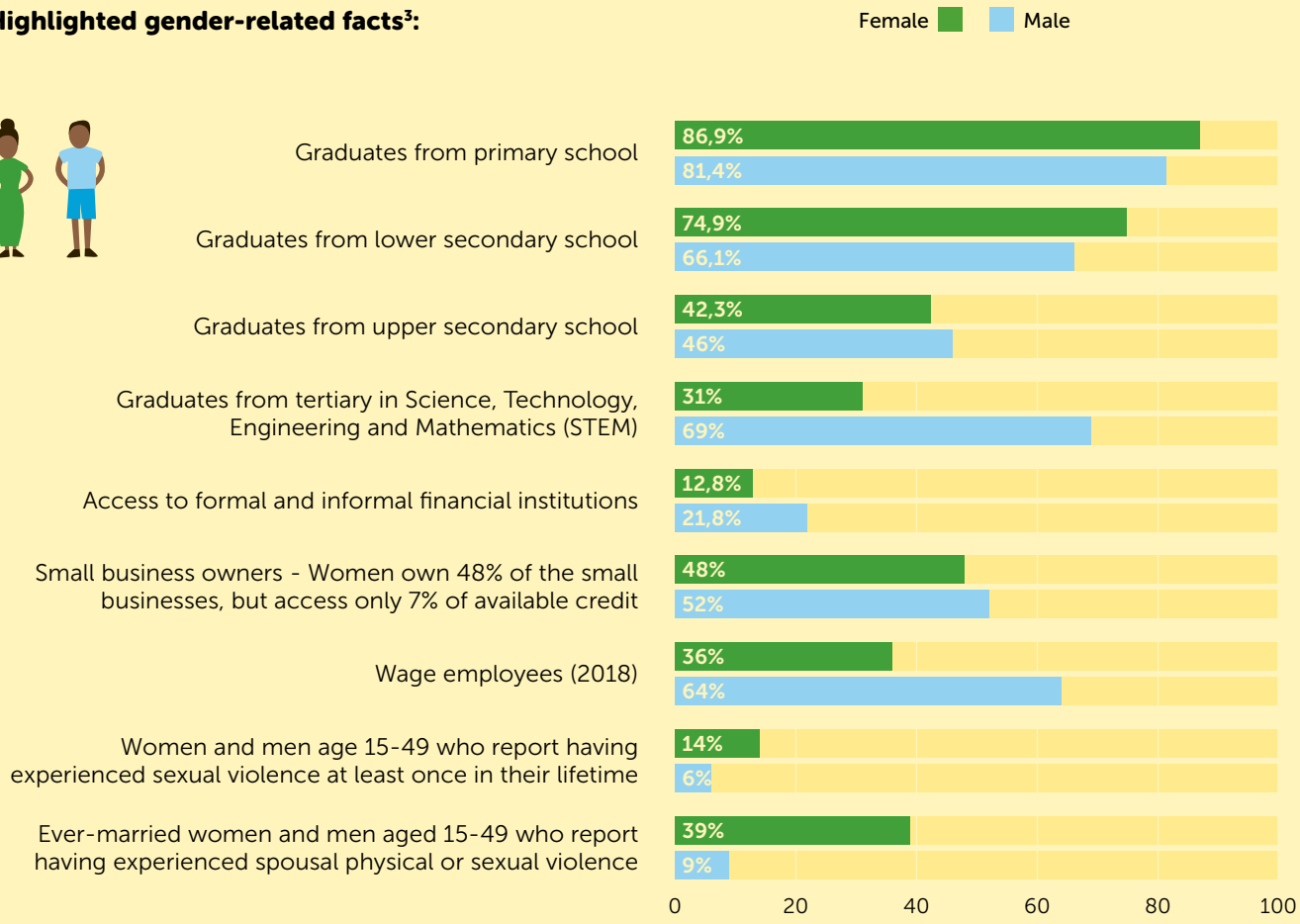
Gender equality in Kenya

In terms of the Africa Gender Index (AGI), Kenya scores 0.522 (1.00 is gender parity). This is above the 0.484 average of African countries.[2] Within this overarching AGI score, Kenya performs very well on the social and economic dimensions of the index (1.001 and 0.703 respectively), compared to the average in Africa (0.949 and 0.608 respectively), but scores poorly on the empowerment and representation dimension (0.203) compared to the average of 0.224 across the continent.

Policies to support gender equality

- General legislation requires representation by women on public decision-making bodies to be at least 33%.
- A national target was established in 2013 that stipulates that 30% of public procurement should come from women entrepreneurs, youth and those with disabilities.
- Several enabling funds support women entrepreneurs including the Women's Enterprise Fund, Uwezo Fund and the National Government Affirmative Action, Funds, which provide funding for women groups.

Highlighted gender-related facts[3]:



Energy situation

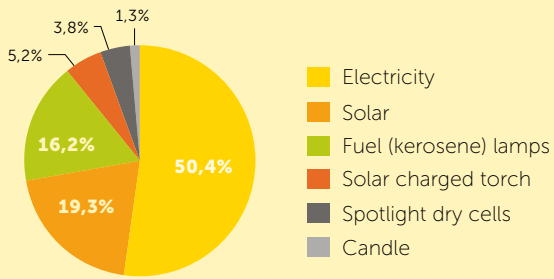
With only half of the population having access to electricity and more than half using wood fuel as their main source of cooking fuel, access to clean energy services is still a major issue in Kenya. The recent 13.7% increase in power production capacity to 2712MW in 2018 has reduced the shortfall and allowed more households to be connected.

Renewable energy sources currently provide 78% of the total electricity generated in Kenya. The recent increase in installed capacity, with 310MW from Lake Turkana wind power plant and 50MW solar capacity from the Garissa solar power plant, has provided a pivotal contribution to the increase in electricity generation (NBS ES, 2019, Africa Energy Portal). Off-grid systems such as mini-grids and stand-alone solar systems are an essential element in the country's plans to achieve access to clean energy sources for all citizens by 2022 (Kenya National Electrification Strategy 2018).

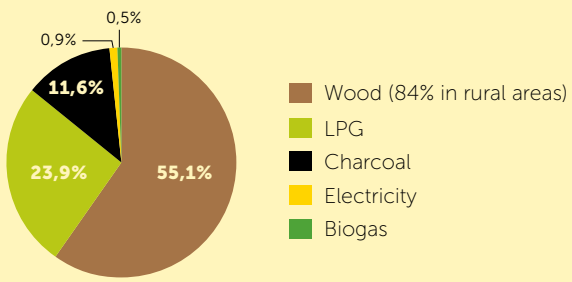
Access to clean energy for lighting is developing rapidly: the government has the target of making Kenya kerosene free by 2022.

Currently, consumers pay KES 15,000 (USD 150) for an initial grid connection. The previous cost of an initial connection of KES 50,000 (USD 500) proved a large barrier so this reduction has been an important measure to increase electricity access. Despite this reduction, low-income households are still facing challenges in paying the connection fee in full.

Main sources of energy for lighting (% of households) (NBS KPHC Volume IV, 2019)



Main source of cooking energy (% of households) (NBS KPHC Volume IV, 2019)



Cost of electricity

- Domestic and small commercial customers using less than 100 kWh per month pay KES 10 (USD 0.10) per kWh[4].
- Customers using over 100 KwH per month pay KES 15.8 (USD 0.16) per kWh.
- Commercial customers consuming between 101 and 15,000 kWh per month pay KES 15.6 per KWh.

Electricity generation capacity from renewables (Africa Energy Portal)

• Geothermal	663 MW
• Hydro	837 MW
• Bioenergy	88 MW
• Wind	336 MW
• Solar	92.5 MW

Cost of LPG

- 13kg: Initial purchase: KES 5,000; Refills: KES 2, 800
- 6kg: Initial purchase: KES 3,700; Refills: KES 1,000

There is general progress in adopting clean energy for cooking in Kenya. A growth in the uptake of LPG and a simultaneous drop in the use of charcoal stoves is evident. Likely contributing factors to these trends are the pricing levels and availability of LPG cylinders in various sizes, and regulations that have largely restricted, and in some counties even banned, charcoal production. The remaining challenges to the adoption of clean cooking solutions include cultural mind sets, the high cost of available technologies and limited distribution networks.

Main policies and national programmes on energy access

The main policies and programmes aimed at achieving the clean energy access target by 2022 are:

- The Energy Act and Energy Policy
- The Kenya National Electrification Strategy
- Sustainable Energy for All - Kenya Action Agenda
- The Last-Mile connectivity project for lighting and other uses of electricity
- Kenya Off-grid Solar Access Program (KOSAP)

[1] Sources: NBS KPHC, 2019; WHO Heart, 2017; NBS KIHBS, 2016; NBS ES, 2019

[2] The data used in the construction of the Africa Gender Index (AGI) are largely supplied by National Statistical Offices. While indicators have been defined in a standard manner, the reference periods for a number of indicators vary across countries.

[3] Sources: African Development Bank and UNECA (2020), KNBS Economic Survey, 2019; KNBS Integrated Household Budget Survey, 2016; African Development Bank, 2017; Kenya Demographic Health Survey, 2014.

[4] Exchange rate used: USD 1 = KES 100

II The gender and energy nexus

Access to clean, affordable energy is necessary in achieving development. Energy policies and programmes are crucial to meeting the energy needs of men and women in households and for income generation. The energy sector itself also provides opportunities for quality paid work. By recognising that men and women have differentiated priorities in energy services, by involving women in decision making, and by creating opportunities for women in energy, the sector can contribute towards increasing gender equality.

Data on the gender and energy nexus

Gender-disaggregated data on the energy sector are very limited. There is a need for new data that estimates the differentiated energy needs of both rural and urban males and females at individual and household level, including for income generation and sustainable impacts.

In terms of data on representation, employment and decision-making in the sector, 35% of the total staff and 15% of the technical leadership positions in the Ministry of Energy's headquarters are filled by women (MoE, 2019). Kenya showcases inspiring examples of women's involvement in senior leadership roles. In all state corporations in energy, there is a good representation of women at the levels of heads of department and managers, and a woman heads the Kenya Electricity Generating Company (KenGen), serving as Managing Director and CEO.

Related to the differences in energy needs, it is clear that in Kenya, as in many countries, the burden of lack of access to clean cooking fuels falls heavily on women. A sector study on clean cooking provides statistics on the uptake of cooking options and key challenges (MOE & CCAK, 2019).

Gender in energy policy frameworks

The Gender Policy in Energy (2019) provides a framework for mainstreaming gender in policies, programmes and projects in energy, and commits to:

1. Strengthening institutional frameworks for the employment of women in energy
2. Ensuring compliance with the Constitution of Kenya on gender: such as by engendering all energy policies, plans, budgets, strategies and programmes
3. Increasing awareness on gender in the energy sector
4. Integrating gender in programmes, and in monitoring and evaluation
5. Promoting clean cooking solutions and environmental sustainability

For each of the outcome areas, measures have been identified to address gender imbalances and questions related to access, participation and benefits by both men and women, thereby enhancing inclusivity in access to energy services. Examples include measures to increase the gender balance in senior positions, to accelerate the uptake of clean cooking, to promote women and girls' participation in STEM education and gender-responsive planning, budgeting and policy. The policy is now in the implementation phase.

Assessment of gender in energy policy

In compiling this country brief, an assessment was carried out based on consultations with key stakeholders. The assessment of gender integration at the Ministry of Energy revealed the following:

- **Institutional structure**
  Gender is embedded in the Ministry through the existence of a **gender unit,** a **gender officer** and an operational **Ministerial Gender Committee**. Gender has officially been recognized as a section/unit in the ministry's organization structure.

- **Gender-mainstreaming in programmes and projects**
  In general, there has been a good effort by the Ministry of Energy to engender projects such as in the Kenya Off-grid Solar Access Programme, the Last Mile programme and the Biogas programme.
  However, most programmes and policies are still gender-neutral and therefore fail to address factors that lead to gender differences in access and impacts. In trying to address this, a gender assessment component has been included in the monitoring and evaluation tools of electricity connections by the Ministry.

- **Financial resources**
  The Ministry of Energy allocates funds annually to support gender mainstreaming. In the financial year 2020/2021 a budget has been allocated to implement gender activities that include actions for policy implementation and for capacity building of staff within the Ministry and State Power Agencies. However, the resources are insufficient for full implementation of gender mainstreaming.

Challenges to mainstreaming gender

Some of the challenges that hinder gender mainstreaming across government ministries, departments and agencies include:

- **Inadequate gender-disaggregated data**
  Although there is no specific legislation for the production of gendered statistics, the Kenya National Bureau of Statistics has made efforts to promote coordination through its Gender Statistics Section (within the Social Statistics Division), which handles gender statistics from all sectors.

- **Monitoring and evaluation: lack of gender-sensitive objectives and budget monitoring**
  Kenya has no system to track budget allocations for gender mainstreaming activities, so it is difficult to track and report related expenditures.

  There is no monitoring of compliance with the gender directives as enshrined in the Constitution. Gaps are likely to remain in the implementation of these activities. Most monitoring and evaluation systems lack gendered dimensions and approaches. The lack of gender-specific targets reduces the opportunity and need to include gender issues in monitoring and evaluation. Consequently, mainstreaming gender across the various ministries and reporting on gender goals remains challenging.

Engaging women as energy entrepreneurs in a solar project

A study on the factors that contribute to the empowerment of women through different forms of electricity supply was carried out in Kenya, India and Nepal under ENERGIA's gender and energy research programme (University of Oslo et al., 2019). Findings from this study on a solar project in Homabay in western Kenya that adopted a gender approach illustrate that taking a gender approach not only contributes to sales, but can also have a positive effect on broader gender equality. The research showed that women's active involvement in energy supply increased their self-esteem and helped overcome traditional social barriers as well as changing men's perceptions.

The "Solar Mama" project in Homabay actively recruited and trained women as technicians. Some community members and men were originally sceptical about giving opportunities only to women. However, the women performed so well that this positively affected men's beliefs as to what a woman could do. Existing gender norms were challenged and mind-sets changed.

"Women's contributions in [village] forums have been very rare. Even in politics, people tend to concentrate on men rather than women. But after we initiated our project here, many now believe that women can do it. The women climb the roof, they fix the solar, they do the connections, and they do the repairs within the system."
– Mary, Solar Mama

The Menengai geothermal project

The Menengai geothermal project is a major project being funded under the Scaling-Up Renewable Energy Program (SREP) in Kenya.

SREP Investment Plan for Kenya

Approved 2011 – Funding agreed: USD 25-50 million in SREP resources for:

- 200 MW geothermal development
- hybrid mini-grid systems
- solar water heating

Benefits are expected through improved access to clean energy and reduced air pollution. By contributing to reducing drudgery for women and increasing access to non-polluting power for lighting, cooking and other household and productive purposes, the potential contribution of the project includes positive effects on women's empowerment, education, literacy, nutrition, health, economic opportunities and involvement in community activities. Further benefits can occur from the mini-grids through enabling other related infrastructure such as clean water or information technology.

The Menengai geothermal field is a large project that will provide 400MW of steam to enable electricity generation equivalent to the consumption needs of around 500,000 households, 300,000 small businesses, as well as 1,000GWh of heat energy for businesses and industries. The project will also help avoid nearly 2 million tonnes of CO2 emissions per annum. The field is being developed by the state-owned Geothermal Development Company and supported by the African Development Bank from 2011-2020.

The project has gender components within its Corporate Social Responsibility goals under the community outreach department of the Geothermal Development Company. The following realised projects have had specific relevance for women and girls:

- Water project for the local community of Wanyororo Village. Women and girls who fetch water have especially benefited.
- Construction of a girls' dormitory for the Rongai Girls School.
- Construction of a dispensary for surgeries and the donation of an ambulance to Bahati Sub-County Hospital.

As gender is primarily addressed under the Corporate Social Responsibility activities, the focus on realising gender targets through community outreach projects has excluded fast-tracked critical gender action plans. It is therefore recommended that, in the future, the programme should have a gender expert in its implementation team to follow-up and report on specific gender targets.

III Strengthening gender in energy

Gender is strongly recognised in Kenya's energy sector policy, and the Ministry of Energy has a specific gender policy. Based on the gender analysis above, and in consultation with key stakeholders, the following considerations have been formulated to help realise gender goals in the country:

- **Commit to gender mainstreaming in energy**
  Key elements of such commitment would be:
- Full implementation of existing policies.
- Extension of the Kenya Off-grid Solar Access Program to the entire country, especially the clean cooking and water pumping components.
- Facilitate electricity connectivity, especially for poor and single-headed families including widows who are unable to meet costs despite government subsidies.

- **Collect and update data at a high level of disaggregation**
  There is a strong need for disaggregated data to provide a sound basis for policies that target specific segments of the population. Detailed data, according to the Sustainable Development Goals indicators, should be disaggregated not only by sex, but also by region (rural/urban), persons with disability and wealth quintiles. There is a need to update the existing data, in particular the Kenya Demographic Health Survey and the Kenya Integrated Household Budget Survey.

- **Perform project impact assessments**
  There is a need to carry out gender impact assessments on SREP projects to evaluate gender mainstreaming in the programme.

- **Evaluate affordability and sustainability of electricity connections**
  There is a need to assess the affordability of electricity access by different types of households (such as rural, single adult headed households or female-headed households) and to include consumption patterns in the assessment. Information about

use is needed to ascertain the sustainability of use and, thereby, the potential benefits of electricity. This evaluation will support development measures to increase the affordability, sustainability and use of electricity connections for all households.

- **Perform periodic monitoring and evaluation**
  The National Gender and Equality Commission should carry out periodic assessments of gender integration in energy, at both institutional and sectoral levels, so as to monitor inclusivity and equity. Most of the monitoring and evaluation systems lack a gendered dimension and approach and therefore there is a need to integrate gender into monitoring & evaluation tools and reporting.

- **Invest in gender-responsive approaches in policies and programmes**
  Energy policies and programmes, including the Energy Act, should include a gender-sensitive approach in order to achieve the national objectives targeted for 2022.
  Going forward, the State Department for Gender should invest more in sectoral **capacity building initiatives** on gender mainstreaming to ensure policies and programmes are gender responsive.

In conclusion

Taking the above recommendations into account, and with the already sound basis of the 2019 Gender in Energy Policy in place that addresses most of the existing gaps in energy policies and programmes, Kenya's energy sector is set to achieve sustainable development for all in a society moving towards gender equality.

"Sustainable, affordable and clean energy for all citizens is a key factor in the realization of the Vision 2030. We strive to ensure women do not just participate as beneficiaries, but play an active role as entrepreneurs in the entire energy value chain."
– Hon. Charles Keter, Cabinet Secretary, Ministry of Energy

COVID-19

The global COVID-19 pandemic is influencing the lives of men and women around the world. Energy access is a crucial part of the immediate response and recovery of COVID-19. With people spending more time at home, energy is needed to ensure that people have clean cooking energy, refrigeration to keep food longer, water for sanitation, cooling for vaccination, electrification for health centres and lighting to support studying and leisure activities. The economic downfall and the lockdown measures have a severe impact on low-income households, informal workers, with women over-represented in the most hard-hit sectors (ILO, 2020).

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- University of Oslo, TERI, Seacrester Consulting and Dunamai Energy (2019). *Women's empowerment and electricity access: How do grid and off-grid systems enhance or restrict gender equality?* Research report RA1, ENERGIA
- World Health Organization (WHO) (2018). *Opportunities for transition to clean household energy in Kenya: Application of the WHO Household Energy Assessment Rapid Tool (HEART)*

Key readings

- ENERGIA (2019). *Gender in the transition to sustainable energy for all: From evidence to inclusive policies*
- Ministry of Energy (2019). *Gender Policy*
- University of Oslo, TERI, Seacrester Consulting and Dunamai Energy (2019). *Women's empowerment and electricity access: How do grid and off-grid systems enhance or restrict gender equality?* Research report RA1, ENERGIA

Consulted stakeholders

- Ministry of Energy: Governance and Strategy adviser to Cabinet Secretary
- State Dept. of Gender: Deputy Director, GM
- Clean Cooking Alliance (Kenya): Country director
- KOSAP: Project Adviser on clean cooking
- Central Planning Unit: Senior Economist
- Kenya Power and Lighting Company Data Centre
- Geothermal Development company(GDC): Manager
- CIF-SREP program: Kenya Focal Point
- Continued consultations with KNBS

Reference for this document

Makungu, P., Kooijman, A. (2020). *Gender and energy country briefs - Kenya,* ENERGIA

African Development Bank

The overarching objective of the African Development Bank Group is to spur sustainable economic development and social progress in its regional member countries, thereby contributing to poverty reduction. The Bank achieves this objective by mobilising and allocating resources for investment in its member countries and providing policy advice and technical assistance to support development efforts. Light up and Power Africa is one of the five development priorities of the institution and constitutes an enabler for the other four: Feed Africa; Industrialize Africa; Integrate Africa; and Improve the Quality of Life for the People of Africa. It anchors the essential areas transforming the lives of the African people, consistent with the Sustainable Development Goals. Reducing gender gaps and accelerating women's empowerment are core objectives of the African Development Bank's strategy to ensure sustainable and inclusive development in its regional member countries. As the leading development institution on the continent, the African Development Bank is championing the production of sex-disaggregated data to adequately address the gender gaps and develop responses that leave no one behind.

Climate Investment Funds (CIF)

The USD 8 billion Climate Investment Funds (CIF) accelerates climate action by empowering transformations in clean technology , energy access, climate resilience, and sustainable forests in developing and middle income countries. The CIF's large-scale, low-cost, long-term financing lowers the risk and costs of climate finance. It tests new business models, builds track records in unproven markets, and boosts investor confidence to unlock additional sources of finance. Under CIF, the Scaling Up Renewable Energy Program in Low Income Countries (SREP) aims to demonstrate the economic, social, and environmental viability of low-carbon development pathways in the energy sector by creating new economic opportunities and increasing energy access through the use of renewable energy. The SREP program has 27 member countries and total resources of approximately USD 700 million.

ENERGIA

ENERGIA is an international network of like-minded organisations and professionals, active in Africa and Asia. Our vision is that women and men have equal and equitable access to and control over sustainable energy services as an essential human right to development. ENERGIA is hosted by Hivos, an international organization that seeks new solutions to persistent global issues.

AFRICAN DEVELOPMENT BANK GROUP

CIF CLIMATE INVESTMENT FUNDS

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