

Scaling up energy access through women-led businesses

Women at the heart of energy access



ENERGIA
INTERNATIONAL NETWORK ON
GENDER AND SUSTAINABLE ENERGY

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The issue

In today's world, 1.2 billion people have no access to electricity and over 2.7 billion people still use traditional biomass for cooking, leading to approximately 4.3 million deaths per year from indoor air pollution. Most of these live in rural and/or difficult to reach areas.

In most developing countries, women are the providers and managers of household energy. Many of them are also energy-consuming entrepreneurs, running home-based micro- and small-scale businesses. Plus, they are embedded in an extensive community network of potential consumers.

Combining all these characteristics, these women have a huge potential to advance energy access in hard-to-reach communities. However, relative to men, they have lower educational levels, less access to productive assets such as land and technology, and to services such as finance and energy; all impediments to running profitable energy and other businesses.

The solution:

The Women's Economic Empowerment (WE) approach in energy involves developing women (and their networks) as energy entrepreneurs in the promotion, sale, servicing and financing of modern lighting, off-grid electrification solutions and clean cooking technologies and fuels, as well as in leadership positions in energy sector organisations.

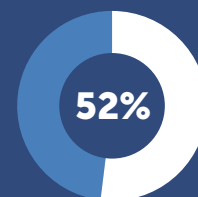
Economic empowerment helps women achieve their potential and advance their rights. Women then contribute to their families, societies and economies. When women have skills and opportunities, they help businesses and markets grow and they work towards eradicating poverty.

ENERGIA and its partners strengthen women-led micro- and small enterprises in the energy value chains, especially in the delivery of energy products and services, thereby scaling up access to energy.



3,730 women

Women entrepreneurs engaged in the programme



Saving in time spent collecting fuelwood



Our impact

(December 2016)



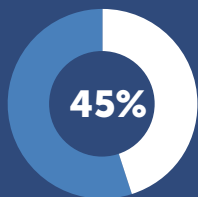
1.78 million

Consumers reached with clean energy products

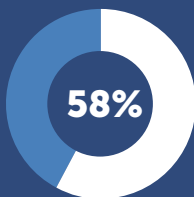


348,921

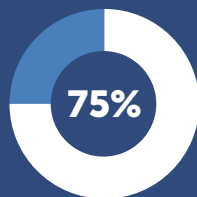
Energy products sold



Reduction in monthly expenditure on cooking fuel



Reduction in monthly expenditure on lighting fuel



Of micro- and small enterprises profitable



Universal access to modern energy services by 2030 is one of the primary goals of Sustainable Energy for All (SEforALL). At the same time, poverty reduction and gender equality are global priorities and important goals in the 2030 Agenda for Sustainable Development.

Achieving these separate but inextricably linked goals calls for concerted international effort, and a break from business-as-usual. ENERGIA, together with its partners in seven countries, has been working on one such effort.



Why investing in women and their energy enterprises pays off

Working with women makes business sense because:

- When women have the right skills and opportunities, their businesses grow and so do markets¹.
- Women entrepreneurs make significant contributions to their economies. Small and Medium Enterprises (SMEs) with full or partial female ownership represent 31 to 38 percent (8 to 10 million) formal SMEs in emerging markets.
- Women can play a crucial role in scaling up energy access, especially in hard to reach communities. As household energy managers and through their networks, they are uniquely positioned to connect with their peers, increase awareness and deliver energy products and services.
- Women make or influence 80 percent of buying decisions and control US\$20 trillion in global spending².

Reaching women is essential in poverty reduction efforts because:

- Women make up the majority of the world's poor, hence poverty-reduction efforts necessarily need to address women's needs and empower them.
- Economic empowerment is one of the most powerful routes for women to achieve their potential and advance their rights.
- Women who are economically empowered contribute more to their families, societies and national economies. When women earn an income, they use the bulk of it in ways that benefit their families, communities and economies, thereby providing a route to sustainable development.

1. IFC and McKinsey Women SME mapping exercise 2011. Here, the definition of a woman-owned SME is based on the enterprisesurvey definition which asks whether at least one of the owners is female, or whether any of the females are owners.

2. Dalberg Global Development Advisers and the International Center for Research on Women (ICRW). 2014. The Business Case for Women's Economic Empowerment: An Integrated Approach. Chapel Hill, NC: Oak Foundation.

Women entrepreneurs face a series of bottlenecks in achieving growth.

Some of these bottlenecks are:

- Limited business experience and skills and lower levels of education.
- Difficult access to finance, often due to non-financial barriers, including the legal and regulatory environment; differentials in education and awareness among women; and constraints within financial institutions (little familiarity with and cultural barriers preventing interest in female clients).
- Culturally driven constraints faced by women entrepreneurs, such as lower levels of education, restricted mobility and higher demands on their time.
- Limited access to a variety of market actors and intermediaries, as well as valuable market data.
- Discriminatory cultural and gender norms that can limit opportunities to grow their businesses.

As a result, women find it difficult to grow their businesses. Through its Women's Economic Empowerment Programme (WE), ENERGIA and partners create and strengthen women as energy entrepreneurs, addressing the challenges facing women entrepreneurs.

ENERGIA's Women's Economic Empowerment Programme

The Women's Economic Empowerment Programme (WE) works with 3,730 women entrepreneurs in the delivery of energy services and productive uses of energy, and has reached over 1.7 million consumers.

Partner organisations in Africa and Asia receive funding and technical support to work with women-led micro- and small businesses, building their capacities through training, hand-holding support and technical assistance. Efforts are directed at two areas: supporting women's energy enterprises and improving the use of energy in women's businesses through the productive use of energy. The approach is three pronged: enterprise development, addressing women entrepreneurs' specific constraints and doing this in a way that empowers the women and builds their agency.

Strategies that the programme implements include:

- Systematic screening and recruitment of potential women entrepreneurs, as individuals and in groups.
- A step-by-step capacity building process focusing on technology orientation; business and marketing skills; leadership and agency.
- Finance facilitation for women entrepreneurs, including through loan guarantee funds, microcredit, local cooperatives and self-help groups
- Facilitate distribution chains that bring energy products from the suppliers to the consumers.
- Targeted support in identifying and expanding into new markets beyond immediate neighbourhoods.
- Putting in place a reliable system for supply, repair and maintenance of high quality energy technologies.
- Partnerships with the private sector, women's groups, organisations, networks, cooperatives and savings and credit groups.
- Fostering women's leadership and influence in the national environment.

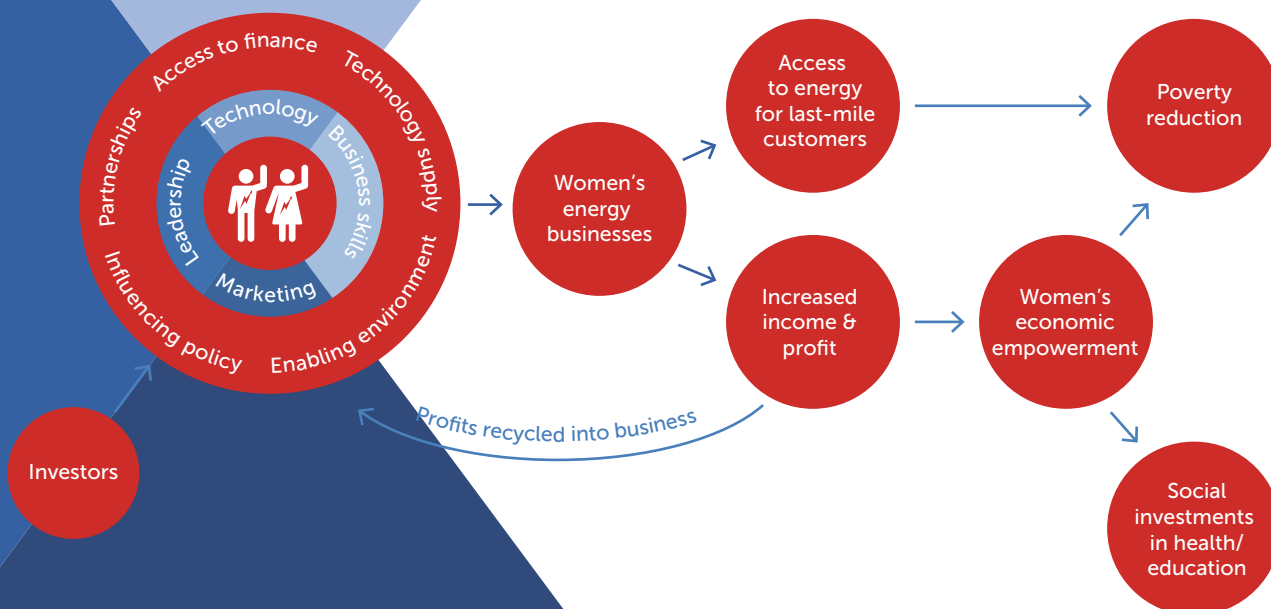


Fig. The WE approach

The women-centric “last mile” distribution model for affordable clean energy technologies integrates women in both the supply and demand sides of a thriving grassroots green economy. It combines the best of an enterprise development model with a women’s empowerment model. Starting with almost nothing or a small energy business, many of these women go on to become social leaders in their communities. They are role models for other women in their communities, and showcase how women like them can run successful businesses, and negotiate and advocate for their interests. At the same time, this market-based innovation brings clean energy to rural customers’ doorsteps, where traditional distribution channels have simply not reached.

Facilitating finance for women entrepreneurs through partnerships

For women entrepreneurs, limited access to finance, both for start-up and growth, is one of the largest challenges faced. In Senegal, the Energy Opportunities for Women in Senegal (EOWS) project, implemented by Energy 4 Impact, works to develop women’s businesses in the poor district of Tambacounda.

In addition to developing women’s energy enterprises based on solar lights and improved cookstoves, Energy 4 Impact also works on energy interventions with Senegalese women’s groups engaged in agriculture and agricultural processing. EOWS is currently working with 241 enterprises (individually and in groups), out of which 105 are selling solar lamps and improved cookstoves (ICS), and 55 are involved in productive uses of energy. To make credit available to the entrepreneurs and to maximise their overall gains, Energy 4 Impact has partnered the private sector and government organisations.

- Energy 4 Impact provides business skills training and one-to-one mentorship to women in developing business plans and advice on improving energy use practices.
- For the non-energy component of their businesses, two government agencies, the Small Local Irrigation Programme (PAPIL) and the National Agency for Rural Agriculture (ANCAR), have been involved. PAPIL and ANCAR train women on farming techniques, irrigation and product transformation.
- To enable the women to have access to credit so that they can purchase technologies for their businesses, Energy 4 Impact has brought together the French Financial Institute PAMIGA and a local Microfinance Institute, Caurie MF, to establish a credit programme. PAMIGA provides concessionary finance to Caurie MF, which in turn provides solar equipment (including solar fridges and solar pumps) on a leasehold basis to women at an interest rate of 15%, which they pay off within 24 to 30 months. This fund is guaranteed through a Loan Guarantee Fund that has been set up within the EOWS programme.

In addition to making credit available for the enterprises, targeted technical inputs from ANCAR, PAPIL and Energy 4 Impact ensure that the credit well utilised, and that the productivity and profit margins of the businesses grow.

Energy 4 Impact has also forged similar partnerships in women’s energy businesses. A financing mechanism has been set up that enables suppliers to sell energy technologies to women entrepreneurs on credit. Energy 4 Impact guarantees the value of those products through a Loan Guarantee Fund set up for this purpose. The suppliers make energy products available for women who must provide 25% of the cost of the product upfront and repay the remaining 75% over a period of 90 days. The EOWS Project is working with three suppliers: TOTAL, through its AWANGO solar products initiative, to deploy certified Lighting Africa products in Africa, and two ICS manufacturers selected through a partnership developed with PERACOD (a GIZ-managed programme).

Embedding activities within local institutions to enhance sustainability

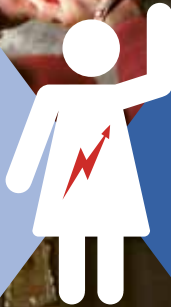
In Nepal, the Promoting Women-led Enterprises for Energy Access and Local Production project (WEE-Nepal) works directly with Community Rural Electrification Entities (CREEs). CREEs are community-embedded organisations that purchase electricity in bulk from the grid and retail it to their users within their command area. Working through CREEs enables WEE-Nepal to support women entrepreneurs in distant and remote districts.

The CREEs operate as local hubs for the WEE interventions and, in the process, their organisational capacities grow. The CREEs take the leadership in identifying potential women entrepreneurs (local women who they know well); steer the training programmes; make linkages with local financial institutions (LFIs) and government agencies such as the District Cottage and Small Industries Office, to facilitate loans. In several cases, they have also set up a Women's Entrepreneurship Development Fund (WEDF) to be used as a guarantee fund so that LFIs can provide concessional loans to CREE-supported women entrepreneurs. WEDF is also used for building the capacity of women entrepreneurs. As the enterprises grow, they demand more electricity, and hence it is a win-win situation for both the entrepreneurs and for the CREEs, who can sell more electricity, making higher profits.

WEE-Nepal is being implemented by the Centre for Rural Technology – Nepal (CRT/N), the National Association of Community Electricity Users Nepal (NACEUN) and Practical Action Consulting, and works with over 800 women in six hilly districts.

The other component of WEE-Nepal is on improved cookstove dissemination. WEE-Nepal has been contributing to the government's "Clean Cooking and Lighting Solutions for All by 2017" national campaign

by promoting a supply system for improved cookstoves (ICS) with local women as the last-mile supply chain actors. With dwindling firewood supplies and the high cost of kerosene, the pressure, mainly on women, to reduce cooking fuel use is high. Unfortunately, ICS are not seen as a marketable commodity and there are few ICS suppliers actively serving sparsely distributed rural communities. In these remote districts, where improved cookstove distribution networks are non-existent, WEE-Nepal develops women as ICS entrepreneurs through imparting technical, business and leadership skills, and providing support in market development and finance facilitation. Several of the trained women have set up their own ICS enterprises while others work for them as sales agents or work independently. WEE-Nepal works with local government programmes and line agencies such as municipalities, Environment Friendly Local Governance (EFLG) and Sunaulo Hazar Din (SHD) for coordinated efforts for ICS promotion through the women entrepreneurs.



Targeted marketing and promotional efforts

The Women in Energy Enterprises in Kenya project (WEEK) is led by Practical Action Eastern Africa, and also involves Sustainable Community Development Services (SCODE). The project is working with 844 women entrepreneurs in seven counties, supporting them in value chains associated with improved cookstoves (ICS), solar technology and biomass briquettes. 922,295 people have gained access to clean energy through their efforts.

While some women entrepreneurs work individually, or with their families, others prefer to form and work in groups of 12 to 30 members, linking to already existing Village Savings and Loaning Associations (VSLAs). Through such groups, the women entrepreneurs come together for specific tasks such as pooling individual contributions to purchase products and raw materials in bulk, or renting a shared space. This enables them to reap economies of scale, while the selling is mostly done on an individual basis, ensuring a “business-like orientation”. Working in groups also gives them confidence and much-needed peer support, for the business and also more generally. Most groups have set up a social fund, which they lend to members in emergency situations at zero interest rate for short durations.

Marketing their products, and going beyond immediate neighbours and friends, calls for a systematic strategy. The project uses the Participatory Market Systems Development (PMSD) diagnostic and planning tool that covers three key areas: 1) enabling environment, 2) core value chain and 3) business support services. The enabling environment aspect is targeted through the project’s advocacy component, which sensitises key players and decision-makers to the need to support women’s economic empowerment in energy service delivery. This includes lobbying county governments to support the women entrepreneurs, for example by providing capital to expand their businesses.

In intervening at the core value chain level, (producers, retailers and end-users), the project is investing in developing both the demand and the supply sides of the three energy technologies. To increase demand and activate energy product markets, the project uses strategies such as marketing campaigns supported with public open-air demonstrations, facilitating entrepreneurs to participate in trade fairs and other potential convergence events such as county environment days, farmer field days and door-to-door marketing campaigns. While a few of the marketing activities are project-led (partially financed and organised by the project with the women entrepreneurs participating as exhibitors to promote their sales), most are led by the individual entrepreneurs.

Further, the WEEK project has cascaded its marketing strategy down to each of the counties, with each county employing different marketing and promotion tactics, informed by context and immediate market needs and opportunities. Additionally, each of the project counties is used as a focal location to coordinate linkage and access to markets in neighbouring counties. For example, the entrepreneurs in Nakuru have access to markets in Baringo, Nyandarua and Laikipia Counties through their own networks.

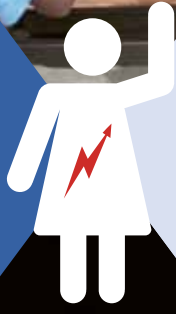
At the same time, the project has facilitated necessary linkages between the entrepreneurs and service providers such as machine fabricators for briquetting machines and suppliers of accredited solar and ICS brands for the Kenyan market.





WE impact

CLEAN ENERGY →



Personal

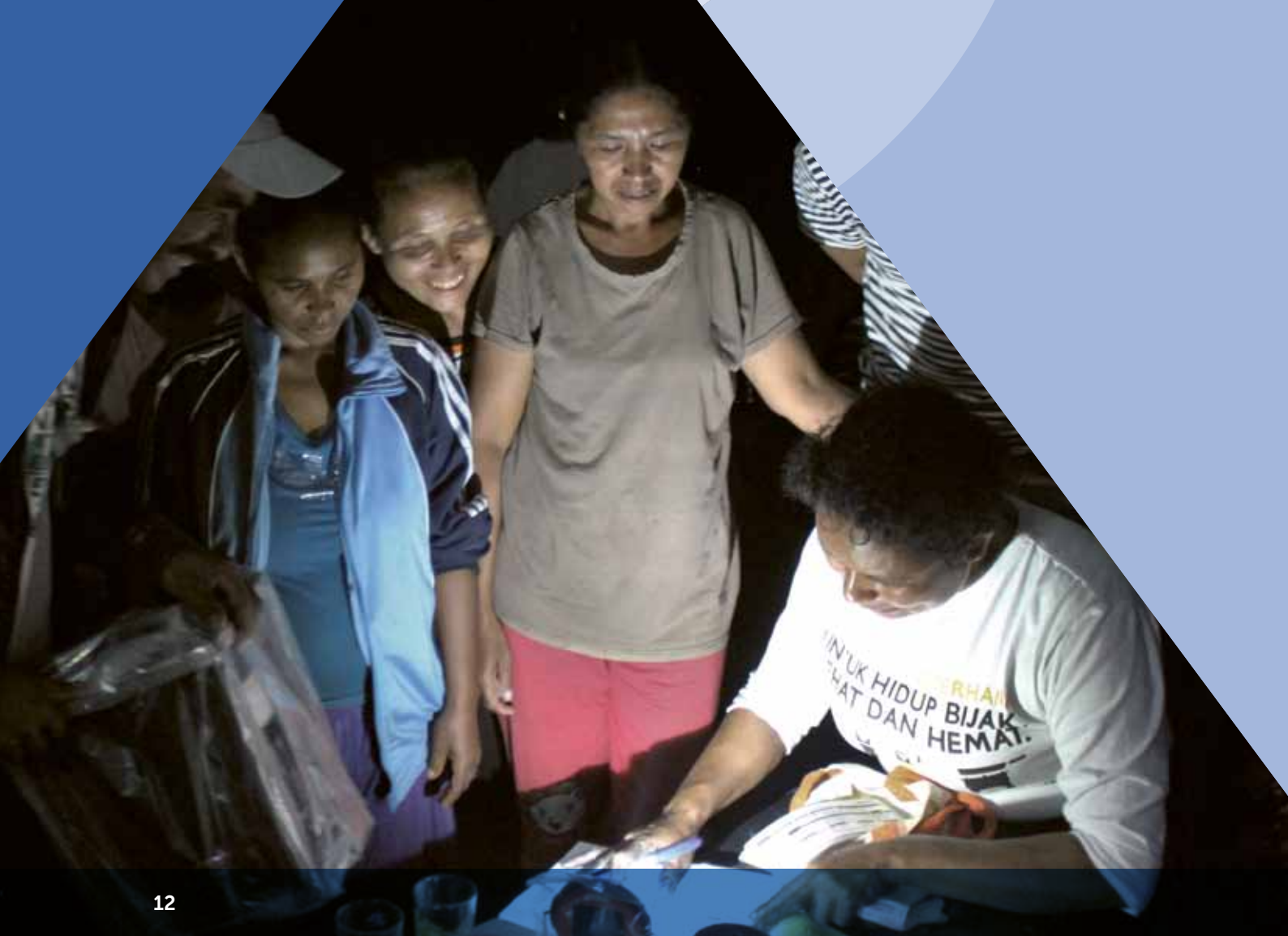
- Income and profits
- Knowledge and skill set
- Self-esteem
- Well being

Household

- Asset ownership
- Financial security
- Bargaining power
- Decision making

Community

- Participation in community
- Employment
- Change agent



Indonesia's Ibu Inspirasi: growing as they sell

Indonesia spreads over an archipelago of more than 17,000 islands. This geography make energy access a huge challenge. Of its total population of approximately 260 million people, more than 80 million live without electricity, and almost 100 million people rely on smoky, fuel-hungry three-stone fires for cooking. The Wonder Women Indonesia programme addresses technology distribution and women's economic empowerment. Kopernik Solutions is currently working with 389 'Ibu Inspirasi', or 'Wonder Women' in English, to develop sustainable supply chains connecting clean energy technology with last-mile communities, expanding access to simple, affordable and clean energy technology.

The Wonder Women get trained in technology use and maintenance, sales and marketing, bookkeeping, public speaking, and agency and empowerment. Training sessions equip them with the skills and confidence to succeed. They are kitted out with marketing materials and an inventory of technology, and are trained to conduct Tech Fairs and regular promotional events to demonstrate and raise awareness of the clean technologies to their potential customers. Kopernik also supports MSEs in running safe drinking water campaigns in local schools to raise awareness and generate demand for the water filters. The women earn a margin on every technology item sold. Ongoing mentoring helps them to develop new skills and grow their businesses. As of December 2016, more than 500 Wonder Women have sold more than 36,000 clean energy items and reached more than 180,000 people.

As the women grow more confident and increase sales, they often engage other women and men on a commission basis (called "downlines"), which helps them to reach distant markets and create a second layer of women's economic empowerment. When Ibu Sekeda learned about the Kopernik programme, she was too busy to promote technologies and instead hired other women from amongst her friends to sell on her behalf. Kopernik has introduced a downline incentive system to encourage such growth and initiative. Most wonder women play multiple roles as a mother, wife, teacher, entrepreneur, and also a micro-social entrepreneur of clean energy technologies. The wonder women also inspire others through what they achieve - earning money to support their families, gaining new business skills, and gaining confidence in their ability to succeed as micro-social-entrepreneurs.

Transformative impacts at the last mile: Solar Sister

Solar Sister focuses on building women-centric entrepreneur networks in Nigeria, Uganda and Tanzania. It works largely in under-served rural communities, in areas that traditional energy development approaches have failed to reach. As such, the impacts achieved by Solar Sister are transformative. Solar Sister is currently working with 1,954 entrepreneurs, and had delivered clean energy services to 549,865 people.

Ninety percent of Solar Sister entrepreneurs live in the last mile, in rural communities which are largely at the base of the market pyramid. A recent study by the Global Social Benefit Institute at Santa Clara University found that 97.8% of Solar Sister's customers in Tanzania were using kerosene before buying a solar product from a Solar Sister entrepreneur. The study further found that 91.6% of the customers who purchased solar lights from Solar Sister were no longer using kerosene.

Solar Sister's focus on last-mile distribution meets the unique energy needs of families living below the poverty line who cannot afford large home systems or a grid connection. The impact of these lights does not stop at the household and extends to small-scale businesses in communities. In Tanzania, 62% of customers reported using solar products to either start a new business or support an existing one. Solar Sister's 2016 annual impact report found that 31% of entrepreneurs also reported using solar or clean cooking products to run a business alongside their Solar Sister activities. For example, many customers and entrepreneurs reported that, as a result of gaining access to solar lights, they were able to keep their shops open later into the night, increasing their income.





In Sango Bay, on the banks of Lake Victoria, the community relies on agriculture and fishing. The farmers are all Solar Sister entrepreneurs, and they function as an entrepreneurial collective. They reinvest their profits in the Sango Bay Twezimbe Joint Farmers Association which acts as an economic support system for the village. The fishing communities located around Sango Bay have become this group's most consistent customers. The fishermen have purchased the Marathoner Beacon solar lanterns so that they can construct fishing nets at night – a time-intensive process that is necessary to enjoy fruitful fish production during the day. During the six hours it takes to make and mount the nets, the kerosene light the farmers were previously using would often go out requiring them to spend money and time on buying more kerosene. The Marathoner solar lanterns, when fully charged, provide light for up to eight hours.

About ENERGIA

ENERGIA is an international network of like-minded organisations and professionals, active in 22 countries in Asia and Africa. 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. To achieve this, we:

- contribute to energy access for all by scaling up the delivery of energy services through women-led micro- and small businesses,
- advocate for and provide technical support to mainstream gender approaches in energy policies and programmes,
- provide the evidence base for improving energy investment effectiveness through research,
- raise awareness and enhance knowledge of issues related to gender and energy through networking and knowledge products.

ENERGIA is hosted by Hivos, People Unlimited, a humanistic organisation that seeks new solutions to persistent global issues. With smart projects in the right places, Hivos opposes discrimination, inequality, abuse of power and the unsustainable use of our planet's resources.

ENERGIA's Women's Economic Empowerment Programme is funded by the Swedish International Development Cooperation (Sida), the Norwegian Agency for Development Cooperation (Norad), the Ministry for Foreign Affairs of Finland and the Asian Development Bank.



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