

GENDER MAINSTREAMING IN RURAL ELECTRIFICATION PROGRAMMES

Provision of electricity has considerable potential to improve the lives of women as well as men. While cooking is women's major energy need, low electricity access is a limiting factor in meeting women's needs for mechanical energy for food processing and water pumping, lighting for carrying out household tasks, access to communications and information, community services such as health clinics, schools and street lighting, and in lighting and other services for small and medium-sized businesses.

Both women and men play substantial economic roles, with women bearing the brunt of domestic tasks. Women work longer hours than men and face a number of gender-based inequalities in education, employment, access to credit, land ownership, and political participation that limit their access to electricity connections and their benefits.

Many governments have adopted national gender policies and mechanisms as well as international commitments, to promote the elimination of gender inequality. Rural electrification policies often call for equitable connections and universal access. These policies provide a framework for gender mainstreaming in the electricity sector.

Gender mainstreaming in rural electrification projects can identify practical activities that can be undertaken as part of the construction phase or during operations. This technical brief provides guidance on possible gender issues and entry points in rural electrification projects as well as actions that can help ensure equitable access to the benefits of rural electrification for women and men. It is based on ENERGI A's experiences with assisting rural electrification agencies in Botswana, Senegal, Kenya and Uganda.

This technical brief was jointly produced by ENERGI A and Practical Action Sri Lanka, with financial support from Sida.



Why mainstream gender in rural electrification projects?

- To increase positive impacts on women
- To maximise the overall impacts of a rural electrification programme
- To contribute to improving women's and men's livelihood opportunities and empowering women
- Most importantly, to ensure that women and men benefit equally from rural electrification

How can the provision of electricity change women's lives?

Documented impacts of rural electrification on women include:

- Women in electrified households read more (India)
- Savings of 1-2 hours per day due to avoided journeys for battery charging and kerosene purchases, and less time spent on household activities such as grain grinding (Sri Lanka)
- Improved homework and school performance, avoidance of eye problems, and increased enrolment of girls in schools (Tunisia)
- Increased opportunities for employment of women in electrified households and greater income (Bangladesh)
- Maternal health benefits from clinics with improved facilities from electrification (Philippines)
- Improved security provided by lighting paths and areas around houses to protect against potential attacks from people and wild animals, including snakes (Sri Lanka, Uganda)
- Improved health and safety as the need to use flammable fuels such as kerosene is reduced (Uganda, Sri Lanka)
- Household budget savings in switching from kerosene for lighting (many countries)

GENDER ENTRY POINTS IN RURAL ELECTRIFICATION PROJECTS

Planning, monitoring and evaluation

- **Feasibility and baseline studies** that assess the needs of all users, including both women and men, are essential to design a rural electrification system that serves all people equitably. Public consultation builds public support for rural electrification initiatives. Separate consultations with women and men often result in practical considerations that would be overlooked without women's input.
- **Environmental Impact Assessments (EIA)** that include gender issues can ensure that mitigation plans avoid negative impacts on women as well as men. Using gender-focussed approaches in stakeholder engagement, identifying and including specific gender-targeted activities in mitigation planning, and adding gender indicators to the monitoring plan for EIAs can provide positive benefits as well as mitigation.
- **Monitoring and evaluation** by sex and other relevant gender indicators will enable assessment of progress toward greater gender equality and documentation of the actual impacts of electrification on women and men.

Construction

- **Way leaves compensation** paid to property owners by electricity companies for right of way using land to erect electricity posts and towers goes mainly to men, as it is mainly men who own land. Women mostly produce crops as tenants or users of male-owned land. Rural electrification construction can affect women's food production and access to land. Female spouses without land rights may not even be aware of that compensation payments were made, and the payments may be used by the male recipients for personal purposes without their wives' knowledge.
- **Local employment in rural electrification** work mostly involves men, but has the potential to offer needed off-farm employment to women. Physical and cultural obstacles to women's employment in rural electrification work do exist, but these often vary by region, and in some areas women already participate in heavy load carrying and digging. Local assessment of the current situation, and of barriers and opportunities for women, in consultation with local contractors can identify

potential jobs in construction, procurement, supervision, and support. Using bid contract clauses with targets or incentives is one means of encouraging local employment of both women and men in rural electrification work.

- **HIV/AIDS prevention** is widely recognised as necessary where construction crews are active, and many electrification agencies already incorporate an HIV/AIDS prevention component in their construction projects. However often these only address workers and not community women and men, and do not consider the gendered nature of HIV/AIDS, power relations, and gender-based violence.

Operations

- **Promotion** of rural electrification can ensure that women and men, and female-headed as well as male-headed households, have equal access to electricity connections and lighting points. Women and men have different energy needs and roles in the household and are likely to want different areas of the house wired (e.g. women tend to want lights in kitchens and toilets). Men and women also respond to different promotional messages. Women may use different communication channels than men, as they have lower literacy rates, less access to TVs and radios, and less time to attend public meetings. They may also be reluctant to speak up at meetings. Women need skills training in safety and maintenance, as well as technology and payment choices that meet their specific needs and priorities (e.g. inexpensive ready to use house wiring boxes, or pre-payment meters).
- **Access to and affordability** of electricity connections and house wiring affect all consumers. Women in rural areas may face particular obstacles due to their relatively high poverty levels, lower access to credit (compounded by low access to land as collateral), lower literacy rates, and less access to information. Earmarking subsidies for single-parent households and social infrastructure can help women in particular connect with the benefits of electricity.
- **Community, labour-saving and health benefits** can be addressed through the electrical connections for social infrastructure, such as health clinics, grain mills, water pumping, and schools. Street lighting is a valuable service to improve women's security. Linking with ministries and local government responsible for these services can assure their ongoing functioning. Utilities in Botswana and South Africa have addressed cooking needs by including modern fuels and fuel efficient stoves as part of rural electrification promotion.
- **Productive uses of electricity such as milling, welding, carpentry, food processing, phone charging, and tailoring** in rural areas save costs in time and transport for consumers, as well as provide business opportunities for

women and men. Small retail businesses are often women-owned and benefit from nighttime operation. Phone charging is also a popular business for women. However women-owned businesses have less access to property and land for economic activities, and less access to credit needed for business investment, including electricity connection. A World Bank study in some African countries found that more women-owned firms than male-owned firms are expected to give bribes to obtain an electrical connection. Women-owned firms also wait much longer for their electrical connections than do men-owned firms.

Source: Based on ETC/ENERGIA with Nord/Sør-konsulentene, 2011. 'Gender Mainstreaming in Rural Electrification Projects in Uganda: Initial Scoping Mission Final Report to the Rural Electrification Agency (REA), Ministry of Energy & Mineral Development, Government of Uganda and The Norwegian Embassy, Kampala, September 2011'. Available at: www.norad.no/en/thematic-areas/energy/gender-in-energy

Increasing connection rates: The Ready-Box A case from Botswana

In Botswana, the Botswana Power Corporation (BPC), a parastatal utility formed in 1970, is responsible for the generation, transmission and distribution of electricity. Connection rates to the grid in the rural areas still remain low (approximately 50% in 2009). BPC has been challenged in reaching the targeted connection rates. BPC, with the support of ENERGIA, therefore embarked on a gender mainstreaming project with the overall goal of ensuring that the energy needs of both women and men are included in the planning and implementation of the rural electrification programme.

After a careful analysis of the country's context, institutional arrangements and capacities, and the realities on the ground, a Gender Action Plan (GAP) was developed together with BPC staff. The GAP was endorsed by management and is currently under implementation. Through mainstreaming gender into its grid and off-grid operations, BPC sought to develop a strategy to design and market electrification services and products to men and women to enable BPC to increase connection rates.

One of products that BPC promotes is the Ready-Box, a ready to use house wiring box, which reduces the cost of wiring a house, and ultimately the initial cost of connection. The Ready-Box is the cheapest option for wiring a house before connecting electricity and therefore has the potential to increase connection rates for poor households, but the marketing and promotion of the Ready-Box was not targeted at rural households with low incomes.



Botswana has one of the highest percentages of female-headed households worldwide. Over 45% of the households are female-headed according to the Central Statistics Office. Gender analysis of available literature showed that female-headed households are generally poorer, while an Energy Department survey showed that female-headed households were connected to the grid at only half the rate of male-headed households. Here was a large missed market that could be exploited to increase connections and load - a major government objective in the electricity sector.

Targeted marketing of the Ready-Box to women may well increase the connection rates of female-headed households, as has been recognised by BPC in its Gender Action Plan. To be able to reach these female-headed households, BPC is engendering its planning by including gender-disaggregated information on connection rates and on the obstacles to getting connected. In addition, the promotional material is now reviewed and made gender-sensitive. BPC is thus taking measures to achieve equitable access to electricity in Botswana, which contributes to the efficiency of its rural electrification programme.

Source: Omari, K. 2011, Gender Mainstreaming in the Botswana Power Corporation

Electrification through a Gender Lens: Power to the Poor in Lao PDR

In Lao PDR, the Rural Electrification Program managed to increase electricity access across the country from 16% to 71% between 1995 and 2010. The programme was facing an uneven distribution of growth, however, with large urban-rural disparities, as well as gender disparities. The key issue, as was shown by a 2004 social impact survey, was that in electrified villages 20-40% of the households would not connect to the grid because they could not afford the connection charges of USD 80-100. These included primarily those living below the poverty line and female-headed households.

The Power to the Poor (P2P) scheme was launched in 2008 to target the 20-40% households not connected to the grid in electrified villages. The scheme was supported by the World Bank and piloted in the southern provinces of Lao PDR. The state-owned Electricité du Laos was responsible for implementing the scheme.

In targeting the poor, P2P set up an interest-free credit mechanism, and recognised that the core issue was to keep household budgets neutral. The payments that households used to make for using car batteries or kerosene for lighting are now spent on grid electricity and repaying the interest-free loan.

P2P is using a gender-sensitive approach. This is because the majority of female-headed households belong to the poorest in the village and therefore have few – if any – available resources to pay the connection fee. Two gender-sensitive measures were taken up by the programme:

1. Gender-sensitive eligibility criteria: among non-electrified households, all female-headed and single parent households will be automatically eligible for support, as long as the house is safe to electrify.
2. Gender-sensitive outreach materials: the materials highlight the benefits of electricity for women, while consultative processes have been made gender-inclusive, for example by scheduling meetings at times when women are also available.

This approach has resulted in an overall increase in the connection rate from 78% to 95% and from 63% to 90% for female-headed households.

Source: Carlsson Rex, H. and Jie Tang, *Shining a Light on Women: Results from the Power to the Poor Rural Electrification Pilot in Lao PDR*, World Bank. Available at: <http://www.esmap.org/esmap/node/565>



ENERGIA, the International Network on Gender and Sustainable Energy



Practical Action (Sri Lanka, India, Pakistan Programme)