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To 'Empower' Women, Prioritize Energy for Public Services — Not Individuals' Economic Productivity

BLUF: Basic energy access and productive use appliances are not sufficient to economically empower African women. Many don't have land, time, or the freedom to make independent decisions and take risks — three things critical for meaningful economic participation. For energy interventions to truly empower, they must prioritize expanding and improving public services that reduce the domestic work that consumes women's time and limits their choices.

Energy Access Programs Increasingly Target Gender Outcomes

Across Africa, energy access programs increasingly incorporate Gender Equality and Social Inclusion objectives.[1] Development partners want to ensure that women and other vulnerable groups explicitly participate and benefit from interventions. Many funders now measure the success of their electrification or productive use programs not just by megawatts deployed, but also by the number of women who receive appliances, jobs, skills, or lead enterprises.[2] While well-intentioned, these targets can be counterproductive when they overlook local norms, community power dynamics, or the structural barriers rural women face — particularly around domestic work, land ownership, and autonomy.[3]

The Definition of 'Success' is Skewed

Gender and social inclusion frameworks for energy investment often emphasize women's individual agency and wider societal change. Interventions aim to encourage women to use energy to gain economic independence and shift local norms. These objectives get translated into a long list of impact targets and indicators, including:

- **Participation and representation in decision-making:** How many women participate in project design, implementation, and governance?
    - Example: EEP Africa's M&E framework for their clean energy investments; Power Africa's support for the Democratic Republic of Congo's National Rural and Peri-urban Electrification and Energy Services Agency.

[1] For example, the UK PACT Guidance on Gender Equality and Social Inclusion (GESI).
[2] Productive use interventions provide income-generating equipment or appliances (e.g., agricultural processing machines such as rice mills and solar dryers) to beneficiaries.
[3] Ability to make independent economic decisions such as starting a business, accessing credit or taking financial risks without restrictions from household dynamics and social norms.

- **Access to and usage of energy equipment:** How many women or women-led households receive connections or appliances?
    - Example: The Energizing Agriculture Programme in Nigeria; Simusolar in Tanzania and Uganda.
- **Capacity-building:** How many women have been trained in renewable energy use or entrepreneurship?
    - Example: Solar Sister's work supported by Energia, GEAPP, and other partners.
- **Economic empowerment:** How many women-led enterprises receive support, and how did their incomes or access to finance increase?
    - Example: The Solar Harnessed Entrepreneurs (SHE) Project in Sierra Leone.
- **Social empowerment:** Do women report having more say in household or community energy decisions?
    - Example: CGIAR's Nexus Gains initiative developed a Women's Empowerment through Clean Energy Index (WEEI) to measure changes in women's agency over time.

Why This Approach Fails: Short-term Metrics Don't Incentivize Long-term Impact

It aims for quick, measurable outcomes, but real change is slow, non-linear, and requires long-term engagement. Many interventions have short implementation periods and reach just a small number of women. Even a leading nonprofit like Solar Sister has only trained 3,000 Nigerian female entrepreneurs over nine years, which is negligible relative to Nigeria's 40+ million rural women. A 2024 World Bank review highlighted systemic issues: most gender equality and social inclusion projects only run for a few years, lack funding for follow-up, and include no plan for scaling — only 22% of pilots identified any pathway to expansion.

It applies rigid definitions of empowerment. Many programs arrive with prescriptive definitions of what 'empowerment' should mean (i.e., business ownership, higher income, or formal employment) before actually engaging the women they hope to support. Yet women's aspirations vary widely by religion, culture, age, and social context, even within the same community. Treating their needs as monolithic results in resistance to interventions or disengagement from programs. A multi-country study in Kenya, Tanzania, and Nepal found that while programs often assumed women would pursue new income-generating activities once electrified, women themselves prioritized reduced drudgery, improved safety, and better conditions for children's education.[4]

It sidelines men, creating backlash that undermines women. In many African cultures, patriarchal norms shape household and community power dynamics. When men are not meaningfully engaged or educated to support interventions, women's participation can become merely symbolic. It's common, for example, for a woman to receive a solar home system or rice mill, only for her husband or son to take control of it shortly afterwards.

[4] Winther et al. (2019). Women's Empowerment and Electricity Access. ENERGIA.

It assumes that providing energy appliances and training will automatically unlock entrepreneurship. This overlooks deeper structural barriers that women face, including limited access to land and markets, heavy domestic workloads, and constrained mobility and decision-making power.

Energy Is Part of the Solution — But Women Need More

Reliable electricity alone cannot guarantee that women meaningfully participate in, or benefit from, rural economies because they face structural barriers that limit their ability to use it for productive activities. Women need time, land, and the autonomy to make economic decisions in order to turn energy access into real opportunities. In sub-Saharan Africa, these constraints are substantial:

- **Limited land ownership:** Women make up about 40% of Africa's agricultural workforce, yet only 13% have sole ownership of land. In many countries, inheritance laws and customs prevent women from acquiring land. Despite this, energy access programs often provide women with electrified agricultural equipment without addressing land access, making the supported agribusinesses unlikely to last or scale.
- **Severe time poverty:** Women spend an average of 4.2 hours per day on unpaid care work, and even more so in rural areas where limited public services mean long hours collecting firewood, fetching water, and caring for children. These heavy domestic workloads leave little time for any other economic activity, even with improved energy access.
- **Restricted mobility and autonomy:** Social norms often constrain women's ability to travel, take financial risks, or control their income — all essential components of entrepreneurship.

With these barriers in place, "productive use of energy" interventions rarely deliver intended results. A woman may receive a rice mill, but without land to grow crops, time to operate the equipment and reach markets, or the autonomy to make independent decisions, she cannot use it profitably.

Put Public Services First to Reduce Women's Energy Burden

Rather than counting appliances or incomes, energy access programs should start by reducing the domestic labour that limits women's agency. Energy-enabled public services can dramatically improve women's lives. For example:

- **Water and sanitation:** Solar-powered boreholes can reduce the hours spent fetching water.
- **Clean cooking:** Efficient stoves tailored to local cuisine can reduce the time spent gathering fuel and cooking.
- **Clinics and childcare centers:** Electrified healthcare centers and community childcare facilities can free up the daytime for women to run businesses, as proven by the SEWA Sangini initiative in rural India.

- **Electrified schools:** Electrified schools can reduce dropout rates, extend study hours, and free up mothers' daytime hours to enter the labor force.

Evidence from Ghana, Rwanda, and Nigeria shows that when public services improve, women experience a better quality of life and shift their time towards paid work, education, and civic participation.[5,6,7,8]

Making Gender and Social Inclusion Interventions Work for African Women

1. **Shift from enterprise-first to infrastructure-first.** Prioritize the electrification of public services that reduce domestic labor.
2. **Layer energy interventions with structural enablers.** Pair energy access with interventions expanding access to land, markets, healthcare, and childcare.
3. **Measure time and agency, not just income.** Assess whether women gain autonomy and choice, not only whether they start a business.
4. **Design for choice, not prescription.** Allow rural women to choose how energy can improve their lives, rather than defining 'empowerment' for them.

Gender and social inclusion interventions must go beyond providing women with technology or training. True inclusion requires addressing the structural barriers that limit women's agency, beginning with the energy burden of domestic work. By prioritizing energy-enabled public services that free up women's time and labor, we create the conditions for women to choose how they want to use energy, rather than simply complying with donor-defined visions of 'empowerment'. Without this shift, gender and social inclusion risks becoming a well-intentioned but ultimately ineffective checkbox.

[5] Opoku et al. (2020). 'Electricity Access, Community Healthcare Service Delivery, and Rural Development Nexus: Analysis of 3 Solar Electrified CHPS in Off-Grid Communities in Ghana.' *Journal of Energy.*
[6] Kabeer (2012). Women's Economic Empowerment and Inclusive Growth: Labour Markets and Enterprise Development. Centre for Development Policy & Research, SOAS University of London.
[7] UN Women (2023). UN Women provides time-saving energy efficient kits to reduce domestic care work for rural women in four districts of Rwanda
[8] Carabajal et al. (2024). 'Social and economic impact analysis of solar mini-grids in rural Africa: a cohort study from Kenya and Nigeria.' *Environmental Research: Infrastructure and Sustainability.*