

Integrating gender in transitions to renewable energy in the Lower Mekong Region



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Sofie Mortensen

Michael Boyland

As the world increasingly prepares for renewable energy transitions, the Lower Mekong Region (LMR) governments¹ are formulating long-term renewable energy targets. However, achieving an energy transition in a region so dependent on fossil fuels is a monumental technical, economic, social and political challenge. The interests of global, regional and national elites often do not match the energy needs and environmental vulnerabilities of the poorest people, and there is no guarantee that the transition will transpire in a gender-sensitive and socially inclusive manner. Most renewable energy jobs are expected to be in manufacturing, construction and engineering: fields where women are significantly under-represented.

Male economists and engineers continue to dominate the energy sector, and while many of them may accept or even support the concept of gender equality, the relevance of gender to their work is poorly understood. Transitions to renewable energy may thus unintentionally exclude women and reinforce existing inequalities. Yet women – on equal footing with men – have the potential to realize a clean energy future.

To ensure that transitions to renewable energy are for all, it is crucial to identify how opportunities and benefits are distributed, and why they are distributed in those ways. This includes understanding how experiences of energy transitions are widely dependent on contingent identities including gender, class, age and ethnicity. Yet, gender disaggregated data and case-studies on gender and power dimensions in both the fossil fuel and renewable energy sector in the LMR are sparse. Based on detailed desk reviews and key informant interviews, recent Stockholm Environment Institute work aims to close some of these research gaps (Resurrección and Boyland 2017).

Understanding gendered experiences in the energy sector

From the available data in both developed and developing market contexts, a broad picture of gender discrimination and imbalances from production to consumption emerges in the energy sector. Key findings include:

- **Energy sectors are male dominated.** On a global level, women make up less than 6% of technical staff and below 1% of top managers in the energy industry (UN Woman 2012). In the Electricity Generating Authority of Thailand, for instance, all eight executive

Photo (above): When living along Cambodia's Tonle Sap system, every stick of firewood counts © SEI ASIA

¹ Cambodia, Laos, Myanmar, Vietnam and Thailand

officers are men and only 23% of the staff are women, mostly in administrative roles (Resurrección and Boyland 2017). The reasons are context specific but commonly include gender norms assigning women with domestic obligations and discounting their capabilities in technical domains. Additionally, girls and women lack access to capital and to both basic and higher education, particularly in science and technology. For example, in the Lao labour force 45% of male employees, compared to only 33% female employees, have education to secondary school level and above (MoL 2010). This creates barriers against acquiring the skills needed to enter the science and technology sector. Constraints continue in the workplace where discriminatory barriers in hiring procedures, wage discrimination and harassment prevent women from advancing to higher positions. This is also due to mobility restrictions caused by women's domestic burdens and a general lack of childcare facilities, especially when work activities require relocating or travelling.

- **Small-scale energy users - predominantly women - tend to be overlooked in centralized energy systems.** Important energy consumers such as large-scale agriculture and industries are similarly male-dominated. In the global workforce, women only account for 9% in construction, 12% in engineering and 24% in manufacturing (Stevens et al. 2009). Similar conditions persist in the LMR. In Cambodia, women's business ownership in sectors such as agriculture and energy account for less than 1% (ADB 2015). This means that energy for industrial purposes is largely a sphere of male decision-making. Less strategic locations and sectors such as small-scale agriculture and microbusinesses are typically expected to benefit from the trickle-down effects of a more reliable centralized electricity supply. Yet, in the LMR, energy security concerns at the individual, household and community levels continue to be neglected. In Myanmar, for example, energy services such as electricity is accessible to only 70% of the population. Female-headed households in Cambodia have limited access to electricity (Dave et al. 2018). Further, women are often disproportionately affected by energy insecurity due to their domestic obligation to ensure household energy supplies (GCCA-UNDP 2013). For instance, one energy-related obligation is collecting fuelwood, which limits women's and girls' ability to engage in education and expand their employment opportunities.
- **Persistent gender norms constrain women's ability to participate at every stage of energy decision-making.** Conventional energy models and centralized systems often see decisions made at the generation, transmission, and distribution stages by higher-level professionals that are predominantly men (IRENA 2013). Persistent gender norms that constrain women's voice in the public space further limit women's ability to express their energy needs and influence mitigation measures during energy infrastructure development, such as in hydropower. In the EIA processes leading to the Truong Son hydropower project in Vietnam, women's opportunities to raise their voices in public consultations were hampered by social norms on women's public behaviour, limiting their ability to contribute their ideas or influence decisions on the quality and potential outcomes of the building of the dam. Women from ethnic minorities were further constrained due to weak mainstream Vietnamese language skills (Resurrección et al. 2016). These deficiencies ignore women's increasing domestic burdens and risk of gender-based violence that result from insecure resettlement schemes related to dam development (Hill et al. 2017). Improved efforts are, however, seen to include women in prior consultations for large-scale renewable energy developments in the LMR.
- **Women lead a number of renewable energy businesses, yet opportunities for expansion is limited by domestic obligations.** A number of women lead renewable energy businesses such as solar energy, biomass, and clean energy cookstove businesses and are socially accepted for being business leaders. The Solar Power Company Group, Thailand's biggest solar power operator, is led by a woman, for instance. Of the 35 Vietnamese local developers in wind and solar energy, a few are also women-led. Yet, women leading businesses, by itself, is not the only route for empowering women, and it will require a transformation of unequal norms that can

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disadvantage them in the first place and constrain their access to vital enterprise-enhancing resources. Further, the most successful women business leaders originate from wealthy families, whereas low-income women who lead small businesses have limited resources for expanding their enterprises.

- **The policy environment for advancing gender equality and renewable energy is well placed but remains separate and siloed.** Despite women's important roles as producers, users and consumers of electricity from renewable energy sources, the design of policies, products, and services relevant to energy access perennially fail to integrate a gender dimension. Thus, in Laos, the 8th 5 Five-Year National Socio-economic Development Plan 2016-2020 gives no mention to gender equality or women's empowerment in the context of national energy development. Similarly, Cambodia's National Strategic Development Plan 2014-2018 that mandates renewable energy development does not mention gender-responsive approaches. The role of women in energy transitions is unclear and most energy planning and targets focus on supply-side issues of capital build-up and infrastructure development rather than demand-side issues such as gender-specific access to energy services and energy poverty.



Wind across Thailand's Songkhla Lake powers pumps that draw freshwater
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Ensuring just transitions for all

While renewable energy options are increasing in the LMR, gender remains glaringly absent from policies and incentives. Opportunities and benefit distribution in the LMR energy sector rarely trickle down to small-scale energy producers and users, especially women. Yet, transitions towards renewable energy can be just transitions, serving as opportunities to challenge prevalent gender norms and to reverse inequalities in both energy production and consumption. To achieve this, policymakers, researchers, non-governmental organizations and businesses should contribute to closing existing data and knowledge gaps and engage in the following areas:

- **Promote gender equal opportunities in the energy workforce** and challenge persistent gender norms ascribing technical domains to men and domestic obligations to women. This includes spurring women's engagement by improving specific skills and higher education in science, technology, engineering and medicine; by ensuring access to capital and technology for entrepreneurs; and by supporting women in the local labour force by offering skills upgrading. Further, equal pay for equal work must be ensured, and gender-sensitive human resource policies – such as parental leave, flexible working hours for young mothers and regular visits from social workers to address women's health – should be put in place.
- **Explore community energy models** and engage end users to articulate their energy needs, the business opportunities they seek out of renewable energy production, and possible innovations that they could be part of. This includes connecting energy production and consumption practices and politics at different scales by applying bottom-up approaches. A first step may be to identify how energy production equipment such as solar panels and mini-hydro turbines can be managed and owned by women's community associations and how community cooperatives where joint decision-making and ownership occur may ensure the equitable distribution of employment opportunities for both women and men.

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Stockholm Environment Institute
15th Floor Witthayakit Building
254 Chulalongkorn University
Chulalongkorn Soi 64
Phyathai Road
Pathumwan Bangkok 10330
Thailand
Tel: +66 2 251 4415

Contact:

sofie.mortensen@sei.org

Visit us: sei.org

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- **Strengthen women's collective power** and challenge adverse gender norms discounting women's voice and public participation. This includes supporting women's decision-making power by forming a network of stakeholders and gender champions in both the public and private renewable energy sectors. Further, the capacity of both energy and gender specialists/women's organizations on the gender dimensions of renewable energy and climate change mitigation should be enhanced.
- **Support women's renewable energy production** and engage women entrepreneurs. This includes exploring capital resources that can expand medium-sized renewable energy businesses by linking women with innovation specialists and financial advisory services. A gender analysis on renewable energy investment tools such as feed-in tariffs, competitive bidding, power purchase agreements, private sector subsidies, and credit facilities for women business leaders should be applied. Further, a network of stakeholders on gender equality in the renewable energy sector and on women's leadership in energy transitions should be developed.
- **Create gender-responsive renewable energy policies.** National policymakers should develop gender-responsive low emission development strategies (LEDS) by collaborating with national women's ministries and NGOs to embark on a gender analysis of the proposed strategies, and to make specific recommendations to ensure that these strategies will lead to gender equal and inclusive results and benefits. Non-governmental organizations and other stakeholders should engage in developing training modules on gender and large-scale clean energy for policymakers/planners, regulators, modellers and technicians (Escobar et al. 2017).

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