



## Gender and energy

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The United Nations General Assembly has designated 2012 as the International Year of Sustainable Energy for All. To support the Year, the Secretary-General is undertaking action through a new global initiative, 'Sustainable Energy for All', which has set three interlinked objectives: to ensure universal access to modern energy services; to double the global rate of improvement in energy efficiency; and to double the share of renewable energy in the global energy mix. Given the importance of energy in climate change mitigation, reducing poverty, meeting the United Nations Millennium Development Goals (MDGs), fuelling economic growth, and bridging inequality, this initiative has the potential to address three fundamental needs in line with its objectives: to spur economic growth and create jobs; to expand opportunities to those who do not have access to energy; and to move towards more efficient, lower-carbon energy options that are more sustainable.

## Energy and gender challenges

- *Only 1 in 5 people in the world have access to electricity.*
- *Only 24 percent of the people in sub-Saharan Africa have access to electricity and 25 countries are in a state of power crisis.*
- *3 billion people, largely in sub-Saharan Africa and South Asia, rely on traditional fuels such as wood, dung, and agricultural residue for cooking, agro-processing and heating.*
- *In Ethiopia, DR Congo, Tanzania and Uganda biomass accounts for as much as 93 percent to 95 percent of the total energy consumed – a similar pattern holds true in many countries in the region.*
- *2 million people (mainly women and children) die because of the burning of biomass indoors.*
- *About 10 million people, mostly rural poor, have gained access to modern energy services through UNDP-supported projects over the past decade.*

Sources: UNDP 2011, UNDESA 2010, IEA 2011, WHO 2011.

At present, about 1.4 billion people worldwide (one in five) lack access to electricity and about 2.7 billion people (40 percent of the global population) rely on wood and charcoal as their primary source of energy.<sup>1</sup> Poor women, especially rural women, continually face energy-related hurdles – including having to collect wood and the time and labour this requires; scarcity of fuel; and health problems from burning and collecting wood – because they are the primary energy producers and users for the household and tend to be more reliant on small-scale agriculture and locally available resources like biomass and wood.

### **Improving energy access would catalyse the achievement of the MDGs**

Although there is no specific MDG relating to energy, it will be impossible to achieve the MDGs without improving the quality and quantity of energy services in the developing world.

Energy is essential for everyday

household chores such as lighting, cooking and heating. Because rural women and girls are primarily responsible for the bulk of household work, access to energy will make a significant difference to their quality of life, including their health.

“Although access to more modern energy alternatives will not necessarily lead to greater equality in gender roles, it can at least relieve some of the most burdensome and unhealthy aspects of their daily lives and expand the development options available to women, their families and their communities.”<sup>2</sup> On a larger scale, energy policies can catalyse national development and play a vital role in poverty alleviation and mitigation of the ill effects of climate change.<sup>3</sup>

## *Women play a pivotal role in energy production*

Studies confirm that women’s empowerment is crucial for all-round social development,<sup>4</sup> environmental sustainability<sup>5</sup> and ensuring efficiency and sustainability of climate change responses.<sup>6</sup> Specifically, incorporating the contributions and concerns of women and men can help inform programmes and increase access to grid and off-grid electricity access.<sup>7</sup> Failure to consider gendered interests and the different needs of men and women can limit the effectiveness of energy programmes and policies, as well as other development activities that involve energy use.

## *Energy has gender-differentiated aspects*

Energy has significant links to gender equality. First, women and girls are often primarily responsible for collecting fuel and water at the community level. Also, poor women tend to participate in the informal economic sector (for example, the food sector), which relies strongly on biomass as its main energy source, which, in turn, does not feature heavily in national energy policies. Indoor pollution from the use of cooking stoves is also a serious health problem for women and girls. Every year, 2 million people – mainly women and children – die as a result of indoor air pollution.<sup>8</sup> They carry greater loads compared to men, but have a lower intake of calories because custom usually dictates that men receive more food and water.<sup>9</sup> Women’s poor nutrition vis-à-vis their work load also increases their susceptibility to health risks, including anaemia and perinatal mortality.<sup>10</sup> Additionally, the drudgery of collecting energy products (i.e., fetching and carrying fuel wood) harms women’s health; for example, it affects peri-natal mortality and produces complications after delivery.

Second, women spend considerable time in gathering biomass for energy. Because women undertake these activities largely on foot, climate-induced scarcity of natural resources can exacerbate women’s time poverty,<sup>11</sup> as women will be forced to travel and spend more time collecting these resources, thereby causing them to lose out on other self-nurturing activities such as education.<sup>12</sup>

## Gender audit of energy policy in Botswana

*The Botswana Technology Centre, in consultation with the Energy Affairs Division of the Ministry of Minerals, Energy, Water Resources and other stakeholders, executed a gender audit of Botswana's national energy policies. Botswana is the first country where such an audit was held. The audit showed that, although there is a common understanding of the different roles of women and men in Botswana, the knowledge of the relationship among gender, energy and poverty was still limited. This has resulted in gender blindness of existing energy policies and programmes and a lack of consultation with household residents and women, in particular, in developing the energy policy. The audit also showed a lack of gender-disaggregated data and a general absence of association between energy services and the MDGs. Based on this audit and follow-up trainings, the awareness in the government and of the Botswana Power Corporation staff has increased. The corporation recently started a ground-breaking gender mainstreaming programme for rural electrification. The audit also led to a pilot project for collecting gender-disaggregated data and strengthening gender expertise in the country's energy sector.*

Sources: Wright and Gueye 2009.<sup>17</sup>

Third, women generally have less access to finance and energy-related services than men. Studies from Africa, for example, show that women-headed businesses generally face more impediments than men in accessing grid electricity. Experiences in Ethiopia, Ghana, Kenya, Tanzania and Zambia suggest that women entrepreneurs also face greater discrimination than men in the form of delays in obtaining electrical connections and the expectation that they will pay bribes for these services.<sup>13</sup>

Finally, gender stereotypes often lead to women being excluded from discussions about energy plans and policies, resulting in the gender-blind energy planning of policies, financing and execution.<sup>14</sup> As noted above, women play a pivotal role in energy production, distribution and utilization, especially in poor communities. Thus, the lack of recognition of their role could undermine the effectiveness and sustainability of much-needed energy projects and policies.

## Recommendations for action

- **Basic services such as electricity for lighting and cleaner cooking technologies are still a luxury for many rural women and men, so access to modern energy services needs to be improved.** Access to modern energy services would go a long way towards alleviating the daily household burdens of women, giving them more time, improving their health and enhancing their livelihoods.
- **Gender-based constraints related to access to energy, finance, training, employment and entrepreneurship need to be better studied and addressed.** Policies that include both women and men in the development stage may help support more equitable access to electricity (grid and off-grid). Therefore, more efforts are needed to involve women in the design and production of locally appropriate energy technologies.<sup>15</sup> Infrastructure projects designed to promote cleaner, more efficient forms of fossil fuels and renewable energy can offer new skills training, increased employment and entrepreneurship opportunities for women, as well as more equitable benefit sharing at the community level.
- **Investing in low-emission technologies that benefit poor communities, including women, is needed.** Properly developed and deployed sustainable energy technologies would provide the twin benefits of effective responses to climate change (mitigation and adaptation) and the betterment of livelihoods of the poor in general and rural women in particular.
- **Climate change financing focusing on the energy sector should complement broader developmental goals, including gender equality, poverty eradication and sustainable development.**<sup>16</sup> Existing public and private mitigation financing schemes need to focus on projects that benefit poor and marginalized communities, which include women. At the very least, gender and social impact assessments need to be undertaken during programme and project design. Where feasible, carbon financing options should ensure more equitable benefits for men and women by helping expand women's access to and control over energy. This includes efforts to qualify small-scale projects (such as improved stoves) for financing and streamlining the application process.
- **Mainstreaming gender in energy policies and programming is good social policy and would enhance the efficiency of energy policies.** Incorporating gender perspectives in energy projects, policy and planning is critical in ensuring the effectiveness not just of energy programmes and policies, but of all development activities that involve energy use.

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**REFERENCES:** 1. United Nations Development Programme, *Human Development Report, "Sustainability and Equity: A Better Future for All,"* 2011; International Energy and Agency (IEA), "World Energy Outlook 2011: Energy for All – Financing Access for the Poor – Special Early Excerpt of the World Energy Outlook 2011," 2011; World Bank, "Modernizing Energy Services for the Poor: A World Bank Investment Review- Fiscal 2000–08," 2010. 2. ENERGIA, "Fact Sheet on Energy, Gender and Sustainable Development," 2011. 3. IEA (2011), Note 1. 4. World Bank, *World Development Report 2011, Gender Equality and Development,* 2011. 5. United Nations Development Programme (2011), Note 1. 6. Y. Carvajal-Escobar, M. Quintero-Angel, and M. Garcia-Vargas, "Women's Role in Adapting to Climate Change and Variability," *Advances in Geo Sciences*, issue 14, 277–280, 2008. 7. Peter Alstone, Carmen Niethammer, Brendon Mendonça, and Adriana Eftimie (2011), "Expanding Women's Role in Africa's Modern Off-Grid Lighting Market," Lighting Africa Project, International Finance Corporation, 2011. 8. Inter-Governmental Panel on Climate Change, Working Group II "Chapter 9: Africa," 2007; World Health Organization (2011), Note 8. 9. Irene Dankelman, *Gender and Climate Change: An Introduction*, Earthscan, 2010; World Health Organization, "Gender, Climate Change and Health," 2011. 10. World Health Organization (2011), Note 8. 11. Time poverty is understood as the fact that some individuals do not have enough time for rest and leisure after taking into account the time spent working, whether in the labour market or at home. 12. World Bank, "Gender, Time Use, and Poverty in Sub-Saharan Africa," 2006; World Bank, *Gender in Agriculture Sourcebook*, 2009. 13. Peter Alstone, Carmen Niethammer, Brendon Mendonça, and Adriana Eftimie (2011), Note 7. 14. United Nations Development Programme, *Gender & Energy: A Toolkit for Sustainable Development and Resource Guide*, 2004. 15. ENERGIA "Where Energy is Women's Business: National and Regional Reports from Africa, Asia, Latin America and the Pacific," (2007). 16. UNDP "Engendering Climate Change Finance" (Work in Progress) (2011); Schalatek, L. "Gender and Climate Finance: Double Mainstreaming for Sustainable Development," (2009). 17. Wright, N. and Gueye, Y. (2009). Gender Audits of Energy Policy in Botswana and Senegal: what has been achieved? Boiling Point, Issue 57. HEDON. Link: <http://www.hedon.info/View+Article&itemId=11121>.



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