

Policy Brief 5: Post-2015 Development Agenda

Energy for the Poor and Women: Sustainable, Renewable and Clean Energy for Inclusive Development and Addressing Climate Change

National Scenario

The Government of Bangladesh (GoB) is committed to supply electricity to all households by 2021. Despite substantial progress in energy production and supply in Bangladesh over the last five years, still 40.4% population has no access to grid electricity (World Bank, 2015). Energy ('energy' is used to refer power required for lighting, commercial and industrial purpose, and fuel required for cooking at household level) shortage still remains as the most critical constraint on Bangladesh's economic growth and social development. The UN Secretary-General's initiative, Sustainable Energy for All (SEFA), has marked Bangladesh as a priority country for promoting sustainable energy access. Meeting the energy needs of the entire population, particularly poor and women, both for lighting and cooking should be a national priority to fulfil government's vision and achieve Sustainable Development Goal (SDG) 7—access to affordable and clean energy.

At present, the total installed power generation capacity is 10,213 MW in 2015 while the highest generation does not exceed 6675 MW (PDB website.

2015). The share of different categories of fuels in electricity generation is natural gas 86.7%, petroleum 6.2%, coal 4.6%, and hydro-electricity constitute the remaining 2.5%. Off-grid population living in remote and hard to reach areas struggle to access power and energy. The primary energy resources are mainly biomass and natural gas of which biomass is traditionally used for domestic cooking and small rural industries which is estimated to account for about 73% of the country's primary energy supply (Brenes, 2006).

In spite of noticeable expansion of renewable energy (RE), mostly Solar Home Systems (SHS), the rural-urban disparity in accessing power and energy is still very high. The rural energy poverty in Bangladesh is still much higher compare to other SAARC countries (Christian Aid, 2015).

Source of energy for cooking: Of the entire population, just 10% have access to natural gas or modern energy for cooking. These beneficiaries are primarily residents of few urban areas. Use of natural gas and LPG for cooking in urban and rural areas is 37.8% and 0.5% respectively. For cooking fuel; crop

“Energy is the golden thread that connects economic growth, social equity, and environmental sustainability. I know this from my own experience. ... Widespread energy poverty condemns billions to darkness, to ill health, to missed opportunities. Energy poverty is a threat to the achievement of the Millennium Development Goals. It is inequitable and unsustainable. Children cannot study in the dark. Girls and women cannot learn or be productive when they spend hours a day collecting firewood. Businesses and economies cannot grow without power. We must find a way to end energy poverty.”

Ban Ki-moon, UN SG, Opening remarks at World Future Energy Summit, Abu Dhabi. January 16, 2012



residue, dung, kerosene and wood are used in urban slums and rural areas in 61.5% and 99.4% cases respectively (CAP. 2013). Due to poverty, infrastructural constraints, disparity and lack of government support, many households cannot afford or access to modern energy services and depend on inefficient, polluting and hazardous fuel options.

Use of massive amount of solid biomass has its negative impacts on environment, air quality and human health, particularly women's health by increasing the risk of chronic obstructing pulmonary disease (COPD) and increasing respiratory problems as well as worsening lung function. Generating heat through burning solid biomass is inefficient. This burning process releases toxic mix of hazardous pollutants that contribute to climate change at regional and global levels. This situation can be controlled and improved by clean cooking solutions through disseminating improved cooking stoves (ICS) and expansion of modern energy for cooking. Strict implementation of Bangladesh government's vision (Country Action Plan for Clean Cook-stove 2013) of smoke-free kitchens by 2030 through disseminating 30 million ICSs can play important role to prevent degradation of environment and enhance women's quality of lives. Implementation of this CAP has the potential to support household level climate change mitigation initiative.

Renewable energy: It is encouraging to note that solar energy has become a source of power generation in Bangladesh and through RE 80 MW electricity has been produced in last four years. Seven per cent of the total beneficiaries (60%) of electricity service use RE. At this backdrop, the GoB has planned to generate 5% of generation (i.e., 800MW) by 2015 and subsequently 10% (i.e., 2000MW) by 2020 from renewable sources (Power Div. 2014) for the energy poor population. Owing to the gradual depletion of natural energy resources the government has taken scores of initiative to adopt RE at the off-grid rural and remote areas in Bangladesh to meet the unmet demand. Among the potential possible sources of RE, the solar energy has highest potential in Bangladesh. Currently, out of more than six million solar home systems worldwide, three million are in operation in Bangladesh alone (IRENA. 2015). 'More than 65,000 SHSs are now being installed every month ... with average year to year installation growth of 58%. The program replaces 180,000 tons of kerosene having an estimated value of USD 225 million per year. Moreover, around 70,000 people are directly or indirectly involved with the program. The program has been acclaimed as one of the largest and the fastest growing off-grid renewable energy program in the world' (IDCOL website).

RE: Lower Costs and Carbon Emission

SHS and small-scale power generation through solar energy has reduced the everyday economic cost for energy and more importantly has significantly reduced carbon foot print of the people. Experience of one Bangladeshi solar energy company claims that a middle income family can save around BD Tk 800 for kerosene per month through installation of a SHS and subsequently low income family can save around Tk 200 per month (Down to Earth. 2010). At the UN Climate Conference in December 2015, over 190 countries agreed to limit global warming to well below 2 °C to avoid dangerous climate change through deeper cut of carbon emission. Renewable and energy efficiency would contribute to achieve that global goal.

Energy sector related agencies and policies

There are as many as 14 government, autonomous and semi-autonomous organizations operating in power and energy sector, and all operates under the overall leadership of Ministry of Power, Energy and Mineral Resources. Out of those 14 public and private agencies; seven are involved in electricity production, one in transmission, and six in distribution. MPEMR and its related agencies are governed by 18 policy documents, starting from Electricity act of 1910 to Rural Electrification Board Act and CAP for Clean Cookstoves 2013.

Poor and Women are invisible

Despite Bangladesh Power Development Board's mission to 'make electricity available to all citizens on demand by the year 2021', these policy documents do not indicate how the rights of poor and women regarding accessing energy (electricity) will be ensured. There is no explicit statement or policy document related to poor and women or any gender policy for energy sector in general. Without any pro-poor and pro-women policy direction and program intervention, poor and women's interest and demand related to energy will not be addressed.

Role of cooking fuel in energy discourse: In general, national level energy discourse mostly gives priorities to electricity production and supply, expansion of electrification, petroleum and gas sector and so on. However, in a densely populated country like Bangladesh, where majority of the people still live in rural areas in multi-dimensional poverty and depends on natural resources, the issues related to cooking fuel and people's access to clean, modern, sustainable and climate resilient energy system as basic right should be included in energy discourse with due importance.

Energy for Poor and Women: Meet the Demands

Till today, majority of the Bangladeshi rural population, 66% of the total population, remain as 'energy poor'. Electrification rate in Bangladesh is 90% in urban areas but just 43% in rural areas (World Bank. 2011), which means that the rural areas are most energy deprived and will remain marginalized in the medium to long term unless pro-rural, pro-poor and pro-women measures are taken to undo the status quo. Energy disparity is not confined to only in rural and urban areas or between well off and poor living in different urban clusters. Women across the board suffer most from this disparity. Women and poor are the first to experience the energy poverty which subverts their socio-economic development and other human potential. Lack of access to modern and clean energy adversely impacts on women's workload, health, safety and security, productivity, socio-economic potentials, and empowerment process. Availability of clean, sustainable and modern energy for lighting and cooking ultimately can improve the overall quality of life of a family or community and help preserve the environment. Importance of women's access to clean energy for cooking can be better understood from a recent ActionAid study, which has shown that 'woman would spend 12 years out of 72 years of her life on cooking'. Environment friendly and improved cooking technology and change of gender role can free women from wasting one-sixth of their life-time in kitchen. Like all kinds of poverty, women are the most 'energy poor'. Thus, any 'energy for all' policy regime must have a pronounced focus on 'energy for poor and women'.

- 'Energy for poor and women' should be mainstreamed along with the 'Energy for All' motto in relevant energy related policy-making process, implementation bodies, national policies and guidelines;
- Gender policy, gender target and gender indicators need to be developed for all energy related program to ensure equal benefits for women;
- Energy related goals should be redefined and focused to address development outcomes including health, gender equality and access to essential services;
- 'Energy for All', guiding principal should encompass cooking related clean, affordable, modern and climate resilient energy aspects, appropriate technology and their rapid dissemination;
- Together with market based or cost recovery approach, appropriate and customized financial mechanism should be considered to ensure availability of energy for lighting and cooking to extreme poor and disadvantaged groups;
- In other words, effective and target 'subsidy' mechanism should be devised to ensure energy for poor, women and destitute in under-served areas. Any 'subsidy' in this regard should be considered as investment for women's health and education, empowerment, human development and empowerment;



National Commitment to SDG 7

Considering poor and women living in disadvantaged and underserved rural and urban areas as the essential recipients of clean, modern, sustainable, and climate resilient energy for lighting, cooking and economic activities will help to materialize nation's commitment to Sustainable Development Goal 7: 'Ensure access to affordable, reliable, sustainable and modern energy for all'. Contrary to 'market-based' approach, dedicating necessary resources for pro-poor and pro-women energy program by the government and international community should be considered as investment for poverty eradication, women's empowerment, human development; and more importantly climate change mitigation.

Recommendations:

For successful implementation of government's target of ensuring electricity for all by 2021 and SDG 7 by 2030, women and poor need the following measures by the government to have access to clean, affordable, sustainable and climate resilient energy as *right*:

- Emphasizing equity and considering gender equality while promoting modern energy both in disadvantaged rural and urban areas;
- Focus on decentralized power generation for rural and hard to reach areas based on local realities.

- Investment in research and development to support locally appropriate renewable solutions which can be cost effective, environment-friendly and pro-poor;
- Effective negotiation with development partners for sharing appropriate, sustainable and environment-friendly technology, know-how and supporting capacity building of state agencies, private and social enterprises;
- Policy formulation and patronization to promote suitable technologies, commercially viable business models with social responsibility;
- Special initiative (policy support, capacity development and customized incentive package) for private sector for serving women and poor living in disadvantaged and under-served rural (hills, char, coastal, haor) and urban areas;
- Investment in social and behavior change initiatives/communications to inform, awareness raising, behavior change and taking action by the community;
- Support for social mobilisation and strong local presence of service providers and technology installers in hard to reach and remote areas.

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BANGLADESH CENTRE FOR ADVANCED STUDIES

House 10, Road 16A, Gulshan-1, Dhaka-1212, Bangladesh
Tel: (88-02) 9848124 – 27, 9852904, 9851237; Fax: (88-02) 9851417
E-mail: info@bcas.net Website: www.bcas.net