Gender Assessment

FP070: Global Clean Cooking Program – Bangladesh

Bangladesh | WBG | GCF/B.19/22/Rev.02

30 April 2018

GREEN CLIMATE FUND

Gender documents for FP070

Gender Analysis/Assessment and Gender and Social Inclusion Action Plan[1]

Part II: Gender and Social Inclusion Action Plan:
(Project/Program Level)

Gender Background

The World Economic Forum has recently published a report on Global Gender Gap captioned "The Global Gender Gap Report 2017[2]". According to the report, Bangladesh ranks 47th among 144 countries in Global gender Gap index 2017. In 2016, Bangladesh was at the 72th position. Notably, the report measures only women's disadvantage compared to men's. The report is attached (file Name: WEF_GGGR_2017).

Bangladesh leads among the South-Asian countries in gender gap index 2017. Maldives comes second after Bangladesh among South-Asian countries with its ranking at106th position. Pakistan is at the bottom in the region whose ranking is 143rd. India, Sri-Lanka, Nepal and Bhutan have ranked 108th, 109th, 111th and 124th respectively.

The report ranks countries by calculating gender gap between men and women in specific four key areas: political empowerment, economic participation and opportunity, educational attainment and health and survival. Key findings from the report are shown in the table below:

	% Female	%Male	Female to Male Ratio
Economic participation and opportunity			
Labor Force Participation	45.10%	83.30%	0.54
Estimated earned income (PPP, US$)	2,364	4,776	0.49
Professional and Technical Workers	29.10%	70.90%	0.41
Educational Attainment			
Literacy Rate	69.90%	75.60%	0.92
Enrollment in Primary Education	95.10%	86.10%	1.10
Enrollment in Secondary Education	61.10%	53.60%	1.14
Enrollment in Tertiary Education	11.40%	15.40%	0.74
Health and Survival			
Healthy Life expectancy (years)	62.90	61.90	1.02
Political Empowerment			
Women in ministerial position	6.30%	93.80%	0.07
Years with female head of state (last 50 years)	23.6	26.4	0.89

Cookstoves and Gender

Bangladesh faces acute shortage of energy. Renewable energy constitutes less than 1% of total generation capacity. When it comes to cooking, use of clean energy is almost non-existent. Out of the total 30 million households in Bangladesh, about 90% use traditional biomass fuels such as firewood, cow-dung, and agricultural residues for cooking in low-efficiency stoves. Cooking in these low efficiency stoves has multiple economic, social, environmental and health impacts. In the traditional rural society of Bangladesh, women are responsible for cooking and collecting firewood for this purpose. In a land-scarce country like Bangladesh, supply of conventional sources of cooking energy (firewood, straws, dry leaves etc) is depleting. It has become difficult than that of the past to collect firewood. It is quite rare at present to gather these cooking fuels for free. Now people mostly have to buy firewood putting extra pressure on their family expenditure. In addition traditional cook stoves (TCS) harm the tin roof of the house and result in higher fuel use increasing financial burden for HH. In practice, poor households still resort to collecting these fuels which often causes security hazards. Numerous newspaper reports have shown how women and girls become victims of sexual assaults and rape when they venture out to collect firewood. With regards to health, the adverse impacts are more serious. According to the empirical data derived from gender responsive social assessment for RERED II undertaken in 2012, the smoke from the TCS cause respiratory problems for women and children. Moreover, deposition of shoots in the kitchen, makes cooking utensils dirty

[1] Template is adopted from the Asian Development Bank and further elaborated by the GCF
[2] http://www3.weforum.org/docs/WEF_GGGR_2017.pdf

making cleaning difficult, which mostly fall on the female members. Thus, an improved cook stove is a welcome change for the female members of a household.

There are many advantages in Improved Cookstoves (ICS) compared to the Traditional Cookstoves (TCS), which are known to produce high levels indoor air pollution (IAP). High Air pollution levels are harmful for household members. The air pollution impacts women more; as women more than men, are involved in cooking within the household and stay indoors for longer periods. Younger children are also impacted more; as they tend to stay with the mother. In a recent study by IDCOL[3], it is shown that the median values of PM10 and PM2.5 are lower by 73 and 48 ($\mu g/m^3$) respectively, for the Households (HHs) with ICS; compared to Households with TCS. The CO level in ICS HHs is almost 90% lower compared to the TCS households. Black carbon which is a SLCF, was found to be lower by 12 $\mu g/m^3$ (i.e., by about 50%). These lower levels for all the pollutants (PM10, PM2.5, BC, CO) are statistically significant at 95% confidence level. The lower pollution levels in ICS HHs translate to better health outcomes for the members of the HHs. The Improved Cooking system has some positive impacts on the lives of its users, for example due to their higher fuel efficient up 50% fuel can be saved which reduces HH expenses and time can be saved due to faster cooking. Even when fuel is collected free, less use of fuel saves time for collection. Saved time can be available for education, recreation and on other useful activities within the household. Women in a household are the most important beneficiaries of this ICS technology. The IDCOL study also found evidence for inter-household spread of IAP. This finding indicates that total ICS coverage of a given area will lead to lower IAP concentration in all HHs. Attempt needs be made to make the 100% of the HHs in a cluster to be covered by ICS. POs should also employ female workers (i.e., up to 40%) in the awareness raising program creating jobs for female community members.

Gender Action plan

However, the POs involved in RERED II project find that the advantages of ICS are not well-known to people in general and women in the vulnerable households in particular. Previously, many poor and vulnerable households often could not afford to make one time payment for buying the ICS. With the rise of income level in the rural HHs and with the introduction of more affordable ICS model from which HHs can make their choice; the accessibility has considerably increased for the poor HHs . One of the model of ICS in the IDCOL program, now costs less than one day's average wage of an agricultural labor. In the earlier social assessments, some complains on the lack of user-friendliness of ICS for women in rural areas of Bangladesh were reported. With the availability of larger variety of ICS in the AF phase , these issues will be substantially address.

The PDO of the RERED II AF is "To increase access to clean energy in rural areas through renewable energy." The ICS component will enhance the likelihood of realizing the PDO and will facilitate the attainment of positive outcomes and impacts for poor rural Bangladeshis including women and the children. Considering the positive impacts of ICS and potential demand, IDCOL started selling of ICS under its renewable energy project with support from Government of Bangladesh and the World Bank. Since August, 2014, about 1.34 million stoves have been installed. IDCOL tracks number of members, both male and female, in the households through its web based software. A total of 5.84 million rural population in 1.34 million households have benefitted so far through ICS installation. Among these beneficiaries, 2.85 million are female.

IDCOL has conducted a baseline survey through Bangladesh Institute of Development Studies (BIDS) which is a reputed autonomous public multi-disciplinary organization. BIDS conducts policy oriented research on development issues facing Bangladesh and other developing countries. The study surveyed a total of 3,000 households: 2,000 households in the treatment area (potential users of the improved cooking stove) and 1,000 households in the control areas (non-users). Results from this report will be used during the implementation of the project.

IDCOL plans to sell a total of five million stoves by 2021. The more ambitious goal is achieving 100% ICS coverage by 2030 as per Bangladesh Country Action Plan. The total projected potential market size of ICS is 30 million. However, to achieve these objectives, there is an acute need for awareness among rural population (potential buyers) about the benefits of adopting ICS instead of TCS. Given that this adoption will incur both financial costs and behavioral change at the household level. IDCOL works with Partner Organizations (POs) who distribute that ICS at the market. Unlike typical sellers (profit maximizing market actors), these POs are mainly NGOs with their own microfinance and development programs in social and human development sectors. They are in a very good position to take up selling of ICS as a social business and engage in awareness raising of rural households in general and women in the households in particular.

At present, IDCOL is working with 66 POs across the country and are mostly installing stoves with more than 35% thermal efficiency. Among the 66 POs working under IDCOL ICS Program, executive directors of seven POs are women. Another five POs have female program coordinator. Among the 2,942 staffs of the POs involved in ICS Program about 10% are female. Thus, the proposed gender action plan will cover both demand and supply sides of the ICS component

[3] A study on Indoor Air Pollution Levels in Households with Improved and Traditional Cookstoves (IDCOL, 2017)

and will mainly benefit women and children in the households. The proposed theory of change of the ICS component is presented below:

Theory of Change as envisaged in proposed action

1. Need assessment: what is the problem?	2. Input/activity: what is the solution?	3. Output	4. Outcomes		5. Impacts
Gender roles in rural Bangladesh constrains women as follows: - Women work longer hours than men - Women spend more time doing unpaid domestic work -- that leads to time poverty and unpaid labor burden - Reliance on firewood forces women and children to spend hours collecting wood -- potentially productive hours that could be spent on income generation/education. Such collection activities often causes security hazards - Households using inefficient stoves dedicate a significant portion of their expenditures to increasingly expensive fuels such as firewood - Women and children are disproportionally affected by health impacts	Distribution and installation of ICS by IDCOL POs	Household adoption of improved cookstove (take-up measured, observed or reported)	1. Shifts in time use	Decrease in average time spent cooking - Decrease in average time spent collecting fuel - Shift in time spent on income generating activities (increase) - Shift in time spent on unpaid care work activities - Shift in time spent on leisure activities - Shift in time spent on education/training (increase)	Improved use of time for more productive activities (like education and/or income-generation) and increase in rest/leisure
			2. Shifts in labor allocation	- Reduction in hours collecting fuel - Reduction in hours cooking - Shift in time spent on other activities different than cooking	
			3. Shifts in household finances	- Increase in monetary income - Changes in the allocation of expenditure - Increase in savings and insurance - Increase of productive and non-productive asset ownership	Improved financial wellbeing
			4. Shifts in health (last 7 days/last 30 days)	- Reduction in cooking burns and other accidents - Reduction of diseases linked to burning fuels (i.e. upper respiratory infections)	Improved health and safety of household members
			5. Technology adoption	- Reduced use of low-quality cooking stoves - Increased use of high-quality cooking stoves - Reduction of cooking time	Consistent adoption of clean/modern cooking technologies