

The Gender Aspect of Climate Change in Bangladesh: An Overview

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Abstract:

In a developing and disaster prone country such as Bangladesh, women are the worst victims of climate change because of their traditional gender roles and existing gender inequalities. However, challenged by the customs; norms; beliefs and inadequate resources, still women are the active agents to cope with or against climate change. Many studies have been done on 'climate change and gender' but very few of them portrayed women's powerful adaptation capacity with climate change in Bangladesh. Therefore, the main purpose of this study is to see the extent of the relationship between climate change, gender and women in Bangladesh. More specifically the study aims to present an overview on 'the impacts of climate change on women' and 'women's adaptation with climate change' in the context of Bangladesh. It is expected that the study would help future researches to focus on climate change from gender perspective to portray women as powerful agent against/of climate change and thus pave the way for a more equal and dignified representation of women in Bangladesh.

Key words: Climate Change, Gender, Impact on Women, Adaptations of Women, Bangladesh

INTRODUCTION

Today more than ever, the world is experiencing an inevitable challenge named 'Climate Change'. Since last two and half

decades climate change has been considered as one of the greatest risks against humanity and therefore many initiatives have been taken in national and international level including international conferences, government measures, scientific researches all over the world. In 1990, the Intergovernmental Panel on Climate Change (IPCC) highlighted the issue in international. Immediate later on, in 1992 United Nations (UN) initiated a Conference on “Environment and Development” where the consequences of climate change and its worldwide multidimensional aspects were the main agenda to discuss among concerned participant countries. Recently, many studies has proved that climate change is no more a scientific matter rather it is an issue related to Socio-economic and political concerns such as poverty, livelihoods, gender inequities, adaptation, vulnerability and also becomes an agenda of sustainable development (Dankleman, 2010) all over the world. The Vulnerability climate change Index, 2015 shows that developing countries are expected to be the worst sufferer of climate change and as a developing and disaster prone country, Bangladesh is in the top of the list (Picture:1). Undoubtedly climate change impacts are more heavily felt in poor countries and communities, especially in crisis-prone countries where climate change could magnify existing instability (Dankelman et al., 2008). However, Bangladesh signed the convention on Climate Change, 1992 and Kyoto Protocol, 2005 by recognizing climate change as a highest priority issue and later, the government has undertaken a number of initiatives to cope with the consequences of climate change as well as against the negative impacts of climate change. Nevertheless, the negative impacts of climate change is threatening the livelihoods and existence of around 160 million people in Bangladesh (Bangladesh Ministry of Environment and Forest, 2013) especially women are the worst victim of climate change as they *“can have a more difficult time during recovery than men, often due to sector-specific employment, lower wages and family care*

responsibilities” (Cutter et al., 2003, p.246). The gender division of labor and so called gender roles reinforced the additional work load for women during disaster time and sometimes intensified the negative impacts of climate change on women. In addition, women’s less access to resources, money and information for disaster preparation and less priority in decision making regarding rehabilitation in Bangladesh increases the risk of women during the disaster than others in the family. In the 1991 cyclone in Bangladesh 90 per cent of the victims were female (Ikeda, 1995). During disaster women often encounter domestic and sexual violence (Nasreen, 2008) and also after the floods, droughts, and storms, they are deprived of essential services such as service for pregnant women. In rural areas, a significant number of women are involved in agricultural and other economic activities, the negative impacts of climate change are not only limited to affect the economy, agriculture, water resources and the livelihoods of poor rural women but also directly responsible for increasing the vulnerability of women in Bangladesh. It is very common that girls will drop out of school to save on school fees or to spend more time fetching water after disaster. In recent years, two major disasters-Sidr (2007) and Aila (2009) have affected 887,377 women, a large number of them became homeless or some migrated to another area to live or for work (Islam, 2011). In the context of the above, this study intends to see the extent of linkage between climate change, gender roles and women in Bangladesh. More specifically the study aims to ascertain-

- the relation between climate change and gender in Bangladesh.
- the impact of climate change on women in Bangladesh.
- the adaptation of women in Bangladesh against disaster and climate change.

CLIMATE CHANGE AND GENDER

In the context of climate change, a 'gender analysis' promotes an understanding of the ways that men and women are differently impacted by climate-related hazards and by adopting adaptation and mitigation strategies. The following discussion aims to see the extent of climate change as a gendered issue and the relation between both from positive and negative perspectives, if any.

Climate change: Climate change refers to any change in climate over time, whether due to natural variability or as a result of human activity (IPCC, 2001). However, this definition differs from that in the United Nations Framework Convention on Climate Change (UNFCCC), which defines climate change as a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (UNFCCC, 1992). Later on, The United Nations High Commissioner for Refugees (UNHCR) defined it in a more descriptive manner such as Climate change is a process that manifests in a number of ways, including a rise in average temperatures; changes in rainfall patterns leading to floods, droughts, and in some areas, desertification; extreme and unpredictable weather patterns leading to more numerous and intense natural disasters; and the melting of glaciers and the polar ice-caps, resulting in rising sea-levels and coastal erosion, leaving low-lying areas uninhabitable (UNHCR, 2009). The impacts of climate change may result in death, injury, or damage to health through an increase in infectious diseases, physical and mental stress, and the loss of medicinal plants and biodiversity. The global effects of climate change will negatively impact communities at multiple levels, threatening the security, economic and human rights conditions of people around the world.

Gender: Gender can be described as the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex. Behavior that is compatible with cultural expectations is referred to as gender-normative; behaviors that are viewed as incompatible with these expectations constitute gender non-conformity. In a more descriptive way, gender refers to socially constructed roles, responsibilities and opportunities associated with men and women, while sex refers to biological characteristics which define humans as male and female. Inequality between the sexes is not due to biological factors, but is determined by the learnt, unequal and inequitable treatment socially accorded to women. The socially or culturally constructed roles and relationships between women and men, contextually specific and often changing in response to altering circumstances (Moser, 1993). Gender is a multilinked issue with a number of different determinants, climate change is one of them. In this study, mostly gender will be used as a synonym of women, not to focus on women but to understand the discrimination against women and their gendered roles¹ because of climate change.

HOW GENDER AND CLIMATE CHANGE ARE LINKED?

To understand the linkage between gender and climate change, we need to understand power relations between and among women and men, and the way that climate change can exacerbate and widen these relations (Brody et al. 2008). The gender-poverty links show that 70 per cent of the poor in the world are women and their vulnerability is accentuated by race,

¹*Gender role* is a set of societal norms dictating what types of behaviors are generally considered acceptable, appropriate or desirable for a person based on their actual or perceived sex. It may vary substantially among cultures, while other characteristics may be common throughout a range of cultures. There is ongoing debate as to what extent gender roles and their variations are biologically determined, and to what extent they are socially constructed. Available at: https://en.wikipedia.org/wiki/Gender_role

ethnicity, and age (Enarson and Morrow, 1998 in *ibid*). When natural disasters and environmental changes occur, women's and men's responses to these crisis situation, as well as their abilities to cope with them reflect their status, roles and positions in society. It is evident that because of gender based inequalities, girls and women are typically at higher risk than boys and men (Enarson, 2002; UN, 2004; Chew and Ramdas, 2004). In addition, women have less access to resources that are essential in disaster preparedness, mitigation and rehabilitation. Gendered divisions of labor often result in the over representation of women in agricultural and informal sectors, which are more vulnerable to disasters. Women, in general, are also responsible for reproductive tasks such as food collection and energy supply for the household as well as many care-giving tasks, such as caring for the children, sick, elderly, the home and assets (Enarson, 2002). Water, sanitation and health challenges put an extra burden on women, adding to the double burden of productive and reproductive labor when there is a disaster and a collapse of livelihood (Patt et al., 2007 in Islam, 2011). In many societies, socio-cultural norms and care giving responsibilities prevent women from migrating to look for shelter and work when a disaster hits. Self-sacrifice even hampers women's own rescue in any type of disaster. World statistics shows that in some parts of Indonesia and India, over 70 per cent of those who died in the 2004 Tsunami were female (International Oxfam, 2005). It's reported that women in sub-Saharan Africa spend 40 billion hours per year collecting water, which is equivalent to a year's worth of labor by the entire workforce in France (Lenton et al., 2005). A study conducted by London School of Economic (LSE) shows that taken a sample of up to 141 countries over the period 1981 to 2002, natural disasters and their subsequent impact, on average, kill more women than men or kill women at an earlier age than men related to women's lower socio-economic status (Neumayer and Plümper, 2007).

The relation between climate change and gender is not only negative, it has some positive aspects as well. However it is not common but true that women play a vital role in natural resources management and in other productive and reproductive activities at the household and community levels which puts them in a position to contribute to livelihood strategies adapted due to climate change. There are a number of examples demonstrate that communities fare better during natural disasters when women play a leadership role in early warning systems and reconstruction. Women tend to share information related to community well-being, choose less polluting energy sources and adapt more easily to environmental changes when their family's survival is at stake. In South Asia women displayed enormous strength and capacity throughout the entire disaster cycle: preparing for hazards, managing after a disaster and rebuilding damaged livelihoods. Activities included ensuring food and water for the family, securing seed and other productive material and taking care of the sick and elderly (Ariyabandu, 2000).

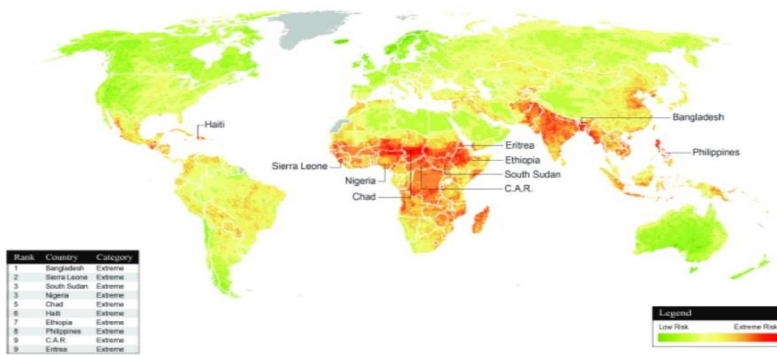
Considering the positive and negative aspects, climate change affects everyone regardless of race, caste, ethnicity, sex and level of income, its impacts are more heavily felt by poor nations and communities, and climate change magnifies existing inequalities though still women are the worst victim of it. The IPCC concluded: "Poor communities can be especially vulnerable, in particular, those concentrated in high-risk areas. They tend to have more limited adaptive capacities, and are more dependent on climate sensitive resources such as local water and food supplies" (IPCC, 2007). In addition, communities interact with their physical environment in a gender differentiated way (Dankelman, 2002), so it is important to consider the women's status and geographical position and other related issues before generalizing all women. To consider the above, the following discussion intends to focus on the impact of climate change in a developing and disaster prone

country such as Bangladesh especially on women in Bangladesh whether it is positive or negative.

THE IMPACT OF CLIMATE CHANGE ON WOMEN IN BANGLADESH

Bangladesh is one of the world's most highly populated countries with 160 million populations on 57,000 square miles. Majority of the population depend on nature and climate variability because natural resource and agriculture determine their livelihood patterns. The country is also recognized as one of the countries most vulnerable to climate risk (Picture: 1).

Picture: 1 (Climate Change Vulnerability Index, 2015)



Source: Maplecroft, 2014. Available at: <http://maplecroft.com/portfolio/new-analysis/2014/10/29/climate-change-and-lack-food-security-multiply-risks-conflict-and-civil-unrest-32-countries-maplecroft/>

Bangladesh has become synonymous for frequent climate change induced natural disasters including sea level rise, cyclones, storm surge, flooding, land erosion, water logging, and salinity intrusion in soil and water (Table: 1). In addition, climate change causes loss of life, damage the infrastructure and economic assets, and adversely affect the livelihoods of people especially the poor, vulnerable and destitute living in environmentally fragile areas. The following table is showing

how many deaths happened and how many are affected by natural disasters in Bangladesh.

Table 1: Recent major disasters, affected and deaths by disaster in Bangladesh

Year	Disaster	D-Deaths/A- Affected
1970	Cyclone	300,000 D
1988	Flood	2373 D
1988	Cyclone	5704 D
1989	Drought	800 D
1991	Cyclone	138,868 D
1996	Tornado	545 D
1997	Cyclone	550 D
1998	General Flood	1050 D
2004	General Flood	1071 D
2007	General Flood	3406 D
2008 (June, August)	General Flood	20,002; 615638 A
2009 (July, September)	General Flood	500,000; 250,000 A
2010	General Flood	500,000 A

Source: Nasreen, 2008 and the JNA Consolidation Project, Bangladesh. 2014.

Women constitute the half of the nation in Bangladesh and also they are the active agents of economic activities and agriculture of the country. The impacts of climate change are even more on women than men in Bangladesh because of their multidimensional roles in the family, society and national level. A study by Women's Environment and Development Organization (2008) shows that women are the most vulnerable section of the population in Bangladesh where 171 disasters happened between 1971 to 2005 and more women died than men during these disasters because of their lower economic status and social capital (in Tanjeela, 2013). The following major impacts of climate change on women are making women's life more vulnerable and unequal in Bangladesh.

Promoting gender roles and increasing gender division of work

In a traditional and patriarchal society like Bangladesh, the unequal impacts of climate change affect women's everyday life and opportunities. Due to extreme weather events and the loss

of economic activities in the primary sector like agriculture, cultivation of cereal and livestock farming women experience a significant increase in their workload after disasters which intensify the gender division of work as well. Losses of harvest and livestock have a disproportionate impact on women, many of whom rely on food processing, cattle, and chickens for their cash income. Besides, girls and women have to perform their home duties such as preparation of food, caring child and old people in the family, fetching water, collecting firewood and waste disposal rather working outside. To cope with the natural calamities like flood women have to bear more physical burden than men due to these gender specific tasks. However, in most of the cases women's well-being were undermined because of their dependence on economic activities linked to the home (Khondoker, 1996). On the other hand, fetching water becomes much more difficult for these women, and the water they fetch may be contaminated. Women perform a significant number of responsibilities, sometimes more than any member of the family during natural disasters though their role is largely unrecognized (Dasgupta et al., 2010).

Increasing female headed households

As disaster after situation change the total environment and status of peoples living, it is very common in Bangladesh that male member of the family often leave their family in village with a cause that they are going to cities for earning money. But in many of the cases they do not come back to take the responsibility of the disaster prone vulnerable family. Women have to come forward to maintain her family and children at any cost. In general, women have lower average literacy and education levels, limited access to gainful employment and weak or no control over local (environmental) resources, especially land ownership and legal access to water supply systems (Dasgupta et al., 2010). So, this growing number of

female headed families increase poverty and bring other problems to make the life more miserable for women.

Health hazards of women

Bangladesh is one of the few countries in the world where men live longer than women and where the male population outnumbers the female (Asian Development Bank, 2001 in WHO 2005). Climate change causes serious health hazard for women. During disaster, women are forced to stay close to the community and drink unhygienic water, as tube wells frequently become polluted which are increasing trends of gynaecological problems of women. Pregnant women have difficulty with mobility in marooned and slippery conditions and are often thus forced to stay indoors. In Bangladesh, women are more prone to nutritional deficiencies because they have unique nutritional needs (especially when they are pregnant or breastfeeding), and in some cultures are lower on the household food hierarchy. During and after disaster, women face extreme nutrition problem because in most of the cases they eat after all the members of the family and sometimes keep their small amount of food for children to feed them next time. Social taboos such as hiding menstruation and sexual diseases cause health problems for young women in disaster situations. The 1998s flood in Bangladesh increased perinea rashes and urinary tract infections among adolescent girls because they were not able to properly wash and dry their menstrual rags (WHO, 2005). Water-borne illness might be expected to be more widespread among women, who are nutritionally disadvantaged. Women are likely to suffer increased mental strain, and bear the brunt of certain social constraints, for instance they are shamed by using public latrines, or being seen by men when in wet clothing (Rashid and Michaud, 2000). There are also many other health hazard issues because of climate change which are faced by women and

girls in Bangladesh such as inadequate medical treatment, special service for pregnant women or sick women etc.

Hampering girl's access to education

During and after disaster, it is a very common picture in Bangladesh that household workload increases to such a degree that girls could be forced to leave the school to help with mother in domestic chores and to take care of the younger brothers and sisters. Sometimes damage of school infrastructure and road, inconvenient communication system become causes of leaving schools, but in most of the cases girls do not start school again. In addition sometimes in rural areas parents try to marry off their underage school going girl just to reduce a hungry face from the family.

Furthermore, most of the time women are often not allowed to participate in the public sphere, therefore they less likely receive critical information for emergency preparedness. Sometimes women are also less mobile due to strict gender codes of social behavior, and have lesser chances to escape from affected areas. In the coastal areas, women face natural disaster almost every year, therefore most of them are now aware of the warnings and location of shelters and the necessary doing before and after the disaster, but still the number, structure and environment of the cyclone and calamity shelters in Bangladesh are not found gender-friendly. Many women report that there are cases of sexual harassment on the way to shelters (Nasreen, 2010). Also there is evidence that women face violence like rape, bitten by others, sexual assault, eve teasing and less access to relief goods at shelters.

WOMEN'S ADAPTATION WITH CLIMATE CHANGE IN BANGLADESH

Climate change forces women to adapt to and address the impact of climate change within their communities as they are

actually the first to face the impact of climate change in Bangladesh. However, women are not just victims of climate-related disasters, they contribute significantly to climate change adaptation, mitigation and disaster reduction. Their responsibilities have prepared them well for livelihood strategies adapted to changing environmental realities. Given their roles in society, women have important knowledge, skills and experiences for shaping adaptation process and therefore, their inner strength is getting confidence that they are not any more the most vulnerable group and women leadership is becoming more popular in rural areas. Women are also initiating small businesses, thus they empowering their selves and helping others to get works. In addition, there are also a number of national, regional and international policies as well as organizations working on climate change issue considering gender. Bangladesh government has undertaken many initiatives to identify women's vulnerability and to minimal the negative impact of climate change on women. Such as in 2011, The National policy for women's advancement (NPWA), Ministry of women and children affairs (MoWCA), has incorporated women in Disaster as a separate theme. In addition, the National Plan for Disaster Management (2010-2015) published by Disaster Management Bureau (DMB) has a focus reducing risks of vulnerable communities including women. Likewise, in 2012, the non-governmental organization BRAC, in association with UN Women and with support from the Norwegian Embassy in Dhaka, started a project to reduce the vulnerability of women affected by climate change by increasing their options for earning a living. It has provided livelihood skills training in rice processing, crab farming, fish-net weaving, etc., and workshops on what measures to take when disaster strikes. Grameen Shakti, a non-profit organization, has supported the installation of nearly 800,000 solar home units and trains women as solar technicians to maintain and service solar units. More than 1,000 women have

been fully trained in these facilities, and thousands more have played related roles in solar construction and installation.

Forming gender sensitive climate change policies and initiatives is important but more important is to impose them with what they actually need for their long survival. In 2007 Mitchell, Tanner and Lussier provided a tentative frameworks on what “Poor Women’s Climate Change Adaptation Needs and Priorities” based on the poor women of the Ganges River basin.

Poor Women’s Climate Change Adaptation Needs and Priorities

- A safe place to live:
 - Relocation of communities to safer areas
 - Solid houses built with a high plinth level to reduce inundation
 - Shelters required for people, animals and agricultural inputs/ products
- Better access:
 - To climate change information and related knowledge and skills
 - To services, such as doctors and veterinaries
 - To safe, reasonable and fair credit and insurance
 - To communications, through safer roads and access to boats
- Other livelihood options:
 - Through knowledge and resources for crop diversification and adaptive agricultural practices
 - Through access to irrigation
 - Through locally available training.

In Bangladesh, Government and other concerned NGOs need to distinguish the factors where women are more vulnerable than men. The policies should be made and reshaped focusing on dealing with those areas. Additionally, attention needs to increase at all levels to acknowledge and include women’s voices and perspectives about harms suffered as well as examples of successful efforts related to climate change mitigation and adaptation.

CONCLUSION

In a developing and disaster prone country such as Bangladesh, women are facing and suffering a lot of challenges because of climate change though their tremendous energy and self-

confidence supports them to fight against all negative impacts of climate change and to adopt with the nature. Tarja Halonen, former President of Finland stated that women are powerful agents whose knowledge, skills and innovative ideas support the efforts to combat climate change (Alam et al., 2015, P. 15) Women's participation in climate change decisions, therefore, should be assured and is mandatory for effective, concrete and integrated actions against climate change. Besides these, enhancement of institutional capacity to mainstream gender issue in global and national climate change and Disaster Risk Reduction (DRR) policies and operations through the development of gender policies, gender awareness, internal and external gender capacity and expertise, and the development and application of relevant mechanisms and tools should be prioritized to achieve Millennium Development Goals (MDGs). Women aspire more from the society, as they deserve to be treated with honour and dignity and to be recognized a powerful agent against all natural hazards and changes.

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