

CLIMATE CHANGE AND GENDER IN BANGLADESH

INFORMATION BRIEF



Photo: IUCN / Tanguar Haor Project

KEY POINTS

- Climate change is not gender-neutral. Women are generally more vulnerable, representing the majority of the Bangladesh's poor. They are also more dependent for their livelihood on natural resources that are threatened by climate change.
- Some of the factors that influence the higher vulnerability of women to disasters include lack of means and assets to ensure their own safety in situations of flooding, landslides and storms.
- With changes in climate, traditional food sources become more unpredictable and scarce. This exposes women to loss of harvests, often their sole sources of food and income. As women constitute the largest percentage of the Bangladesh's poorest people, they are most affected by these changes. Children and youth – especially girls – and elderly women, are often the most vulnerable.

INTRODUCTION

Women's and men's differential access to social and physical goods or resources is one of the key dimensions of gender inequality. Women's social positioning in many situations means that the roles they are expected to take on are often supportive and reproductive, centered around the home and local community rather than the public sphere. This does not mean that women do not play crucial roles in agricultural production or other activities crucial to sustainable livelihoods and national economies. But the roles they play are generally less visible and attract less public recognition than the work men engage in.¹ Typically women – particularly those in poor, rural locations – are expected to assume primary responsibility for their families' subsistence. Yet because they often do not earn a wage, women are frequently excluded from decisions about spending or about their children's education. The expectation that girls will help their mothers with household tasks and with caring for younger siblings means that they are more likely to be excluded from opportunities to gain an education than boys, although these gaps are gradually closing. Women earning a wage often earn less than men, leaving them more vulnerable to changes in their working environment caused by external phenomena, including climate change.

IMPACT OF CLIMATE CHANGE ON WOMEN'S ECONOMIC LIVELIHOODS

Floods and cyclones damage livestock (i.e., cows, goats, buffaloes), poultry (i.e., chickens, ducks), fisheries, trees, crops (i.e., rice, wheat, nuts, chilies, lentils), seeds and animal fodder. Productive tools such as ploughs and nets are also washed or blown away. Increased salinity after a cyclone and the difficulty in plowing wet soil after flooding decreases soil productivity. Sand deposition as result of flood and river erosion affects production of crops such as nuts. During and after weather disasters, the lack of fodder for livestock and poultry results in reduced milk and meat production. However, the impacts of floods and cyclones on the livelihoods of women specifically include:

- **Loss of housing and homestead:** The destruction of houses by floods and cyclones is

a common impact in disaster prone areas.

- **Crop production loss:** Bangladeshi women, who control homestead-based livelihoods, lose income when crops are blown or washed away.
- **Livestock death:** Cows and goats are the most valuable assets of poor people in flood-prone areas. During flooding, collection of fodder for livestock is a significant challenge, particularly for goats who need green grass (which often becomes flooded.) It also becomes difficult for veterinarians to visit the villages or for villagers to travel to buy medicine.
- **Loss in productivity:** Flood water and sand deposition decreases soil productivity.
- **Supply shortage and price of inputs:** Shortages during flooding leads to increased prices for inputs such as seeds, fertilizers, oil for running irrigation pumps, fodder for animals, transport costs and veterinary fees.
- **Limited access to market:** With damages to infrastructure and communications systems, women cannot access the market to buy or sell food such as milk, eggs, vegetables or other products. Women are forced to trade within the village or accept lower prices offered by male buyers from other areas.
- **Loss of income, savings and employment:** Loss in production, lack of storage and destruction of access roads result in assets (e.g., cattle) or products (e.g., milk) being sold at low prices. The selling price decreases while the shortage in supply induced by floods results in increased prices for essential goods. Moreover, floods and cyclones reduce employment opportunities, especially for women working in agricultural fields. As a result, there is a net loss in income which, in turn, leads to a loss in savings, thus making it even harder for households to cope with disasters.

¹ Institute of Development Studies. (2008). Gender and climate change: mapping the linkages, A scoping study on knowledge and gaps. http://www.bridge.ids.ac.uk/reports/Climate_Change_DFID.pdf

ROLE OF GENDER IN MANAGING CLIMATIC HAZARDS

Over the last decade, the disaster management sector in Bangladesh has experienced an influx of new concepts and approaches. Major approaches have switched from technology-based hazard control to community-based disaster risk management, which aims to reduce human vulnerability and build resilient communities.² For this purpose, disaster management committees are set up within each union.³ The committee prepares a disaster action plan and maps, showing hazard risks and resources in the union. Members of the community take part in this process utilizing PRA methods. It is the committee's responsibility to disseminate warnings, carry out evacuations and rescues, distribute relief and operate shelters, based on the disaster action plan.⁴ In the proposed National Disaster Management Plan for 2008-2015, the causes of vulnerability to disaster have been highlighted. It has been recognized that three dimensions of vulnerability i.e., susceptibility to hazard, possibility of suffering damage, and recovery capacity are affected by gender pattern of access and control over resources, gender roles and responsibilities, norms and so on.⁵ Gender concerns are clearly addressed within the documentation of this new policy. But, often gender issues vanish from the discussion list at the community level. Even when they are discussed, some key issues are seldom mentioned while there are certain sets of women's concerns that are easily recognized and included in the disaster action plan.

Gender concerns are well addressed in the community-based disaster management policy documentation. In order to reflect women's participation in disaster risk management, the following approaches have been taken:

1) 'Women's representatives' should be included on the

disaster management committee. The committee consists of the union council chair and members. In each union there are 12 seats for members, of which three are reserved for women. Representatives of schoolteachers and NGOs working in the area are also members of this committee.

2) Discussion with women's groups is made obligatory.

3) Training is provided to the committee members to increase gender sensitivity. It emphasizes that women's specific needs should be addressed fairly when prioritizing elements of vulnerability.⁶

While the policy recognizes women primarily as vulnerable within society on the one hand, it also appreciates their role in disaster management. Accordingly, the policy aims to minimize the vulnerability of women by promoting their participation in formal decision-making and help meet the women's need to carry out responsibilities in line with gender division of labor.

WOMEN IN CLIMATE CHANGE ADAPTATION AND MITIGATION

So far, low levels of awareness and poor understanding of climate change risks, combined with significant knowledge gaps about climate change processes, have hindered effective societal decision making around issues of climate change adaptation and mitigation in Bangladesh. As the need for sound science to inform climate change policy development and implementation processes increases, it is essential that better communication occur at the science-policy interface so that policies and measures can be identified that bring greater awareness of how to integrate climate change adaptation and mitigation planning.

² Ministry of Food and Disaster Management (MoFDM). (2005). *Corporate Plan 2005-2009*. MoFDM, Government of Bangladesh

³ A union is the lowest local administrative unit with a union council formed by election. The population size of a union on average is about 30 thousand.

⁴ Ikeda, Keiko. (2007). How Women's Concerns are Shaped in Participatory Planning: A case study of community-based disaster management in Bangladesh.

⁵ Watts, M. J. & Hans G. B. (1993). 'The Space of Vulnerability: the Causal Structure of Hunger and Famine', *Progress in Human Geography*, 17(1): 43-67. Also see Enarson, E., & Morrow, B. H. eds. (1998). *The Gendered Terrain of Disaster: Through Women's Eyes*, Connecticut; London: Praeger.

⁶ The initial local disaster management policy guideline, Standing Order on Disaster, was issued in 1997, and in 2005, it was revised into Standing Order on Disaster Management, although the document has not been finalized yet.

COPING STRATEGIES AND ADAPTATION METHODS BY WOMEN

Long term monitoring and research is needed to have a full understanding of whether the current coping strategies of poor households, and particularly of women, are significantly or sufficiently contributing to adaptation to climate change. The factors responsible for success or failure of these coping strategies may be relevant for future planning. The following are some of the micro-strategies used by poor women in Bangladesh to cope with frequent disasters:

a) Avoidance or Prevention Strategies:

People living in the disaster-prone areas of Bangladesh employ an array of measures to safeguard their lives and property against disasters. The majority of the people do have a clear understanding about the effectiveness of each of the preparedness measures, as well as their limitations. Often these measures do not help them because of the magnitude of disasters.⁷

- **Predicting and preparing for disasters:** In the flood-prone areas, vulnerable people have used their own science and arts to predict

floods. This traditional tool is becoming of little help, however, due to the changing nature of disasters, leaving the community with no choice but to rely on whatever early warning system is in place.

- **Protecting houses and homesteads:** Before the flood or cyclone season, families try to make their houses more resilient to disasters by reinforcing walls and roofs with locally available resources, increasing the plinth level of households and elevating the level of cow sheds. More financially secure households raise the level of tube wells.
- **Storing essential items:** Women preserve fuels, matches, dry food (such as rice, peas, puffed rice, flattened rice and molasses), ropes and medicine at home and prepare portable mud stoves for future use. Women often collect firewood to store in dry places for later use. Women also store fodder for domestic animals, seeds, food, harvest, blankets and valuables on machas (high wood or bamboo structures for storage), which are also used to protect goats and poultry from flood water. Many women store cooking utensils,



Photo: IUCN / Shimanto Dipu

⁷ See for details, Alam, Khurshid, Naureen Fatema and Wahida Bashir Ahmed. (2008). Gender, Climate Change and Human Security in Bangladesh. ActionAid, Dhaka. Also see, Nasreen, M., 2000. Coping Mechanisms of Rural Women in Bangladesh During Floods: Gender Perspective. In: Disaster: Issues and Gender Perspectives. Conference Proceedings, University of Dhaka, June 23 & 24, 2000, Dhaka. And Nasreen, Mahbuba, 2007. Violence Against Women during Flood and Post-Flood Situations in Bangladesh. Dhaka.

productive assets (i.e., ploughs, fishing nets) and other valuables under the soil to protect them from being washed away by cyclones.

- **Educating children:** Educating the younger generations about how to protect themselves has been a key strategy employed by households living in disaster areas. Teaching life-saving skills such as swimming and understanding cyclone signals are examples of how parents prepare their children. No formal mechanism for teaching children disaster preparedness exists, however, children usually learn from family discussions or meal-time conversations. Various other activities such as animal rearing, grazing and taking part in plantation work with their parents, during which children have an opportunity to learn their parents' indigenous knowledge, are additional examples.

b) Management Strategies

- **Safety of family members:** During disasters, women must constantly look after children, elderly and disabled family members, and animals to ensure their safety. In flood-prone areas, women prepare elevated platforms for family members with disabilities, using the chouki (traditional bed) and bamboo. Often, to ensure that young children remain safe and are not carried off by flood water, parents construct a 'fence-in' to keep toddlers in one place.
- **Ensuring food security:** Since most households are dependent on agriculture, flooding season is particularly threatening. In general, there is an overlap between flooding time and the crucial rice harvesting period. If a flood comes early in the monsoon season, it destroys the standing crop, which results in food shortages. Disasters also affect the local economy, which is vital for generating employment opportunities for non-farmers in both rural and urban areas. When a household faces a food crisis during or after a disaster, women are responsible for adjusting household food consumption by changing the type of food eaten (instead of consuming rice, for example, they resort to alternate foodstuffs such as kaisha or kolmi, local vegetation,) or by consuming less. Various studies acknowledge

that since women's work is closely related to agricultural production, family food and income generation, the burden of food shortage falls on them.

- **Protecting assets:** When flood water reaches the level of the livestock shed, people no longer keep their animals at home. In some cases, they send their cattle to relatives. Some poor families try to sell livestock in an attempt to hold cash security, preparing against the possibility that regular income could be jeopardized.
- **Household works:** Workload distribution within the family disproportionately affects women during a disaster. When husbands or male members become unemployed, daily work for women increases even more as they have to manage resources, feed the family and look after the elderly. In most cases, caretakers for people with disabilities are also female. However, new studies have also documented that work distribution is changing: a significant number of female participants mentioned how their husbands changed their usual habits during flooding; many cook at home or take care of children.
- **Managing finance by borrowing credit, selling and mortgaging assets:** In order to meet household financial needs, assets such as livestock, poultry and boats are often sold. Selling other valuables, mortgaging, or borrowing against assets, or borrowing from neighbors are other common strategies for survival. Many women in rural areas are now part of microfinance organizations, using their memberships to access loans.
- **Migration and alternative employment:** In many cases, women migrate as an adaptation strategy. Migration for employment increases after disasters, when people move out of areas with job deficits in search of work. Female migration contributes a major share of the informal urban labor market. The major activities that employ women in urban areas include serving as domestic help, brick breaking, sewing, jute bag making, ash selling, fish and vegetable vending, selling rice cakes and working in the RMG industry. For earning, they sometimes compromise with their values and

dignity (i.e., begging). Women who have alternative livelihood options prefer not to migrate as laborers; households that have boats, for example, earn incomes by ferrying people.

c. Recovery Strategies

Rebuilding houses, re-stocking livestock, securing an income, repaying borrowed money, treating affected family members, and restoring other aspects of life such as children's education are all parts of recovery from disasters. In all of these activities, women are actively involved.

CONSTRAINTS IN COPING WITH DISASTERS FOR WOMEN

The social, economic and political context for women in Bangladesh makes them overall more vulnerable to climate change. The factors those exacerbating women's difficulty in coping with climate disasters include: i. Limited access to early warning information; ii. lack of preparedness; iii. Limited access to critical services and facilities (i.e., shelters with adequate spaces for women and with proper sanitation); iv. Lack of access to financial security (i.e., loans provided to women often have highly unfavorable repayment conditions); v. Limited market and communication access; vi. Limited access to decision-making arenas; vii. Social expectations of "appropriateness" for women's actions; viii. Increased responsibility to the household; ix. Difficulty in accessing relief goods; and x. Psycho-physical constraints.

POLICY CONCERNS

Ensuring gender sensitive response in disaster risk reduction requires that it is linked to overall development planning. The following checklist offers key points for various stakeholders, i.e., policy makers, NGOs, INGOs, and donor agencies. These however, are not exhaustive. When stakeholders wear the gender lens, many more dimensions can emerge, which can be added to the list. Although the few recommendations below are cross-cutting concerns for all stakeholders:

- There is a need to collect and use gender-disaggregated data on marginalized and most vulnerable sections of the

community to inform relief and rehabilitation and disaster mitigation policies. The database should be periodically updated.

- A periodic review of policies related to disaster response and preparedness and other guidelines should be taken up from a gender perspective.
- Constitution of an inter-agency gender team with representation from grassroots women's groups to monitor the implementations of the issues discussed in this policy paper.
- Long-term livelihood options that are linked with the development plans of the affected area should be put in place.
- Both women and men should be included in disaster management teams at all levels. Among women and men, representation of marginalized groups should be ensured.
- Periodically conduct vulnerability analyses of climate change mitigation and adaptation and promote an integrated human and environmental security approach that is proactive and inclusive and combines top-down measures (e.g., institutional consolidation, laws, norms and policies) with bottom-up participation and resilience-building for exposed communities.
- Create gender-specific disaster reduction policies to address the effects of climate change in disaster-prone areas, as well as pragmatic national and international interventions to ensure food, energy and water security, economic resilience and security of place/habitat, particularly for poor and migrating women and their families.
- Promote women's empowerment through capacity-building before, during and after climate-related disasters, as well as their active involvement in disaster anticipation, early warning and prevention as part of their resilience building.
- Construct a legal regime that safeguards the security of women affected by climate change, including mechanisms to review land-use planning and infrastructure work.



Photo: IUCN / Tanguar Haor Project

- Ensure that government policies and programs on human rights, women's rights and climate change are coherent and reinforce each other.
- Build on and strengthen women's experiences, knowledge and coping capacity in adaptation policies and ensure that women's needs are considered in livelihood adaptation strategies.
- SHGs (Self Help Groups), Federations, Private Sector Civil Society Organizations (CSOs) and CBOs (Community based Organization) should be given formal responsibility for handling relief, cash assistance, shelter management, food procurement and supply.
- Immediate needs of adolescents, like shelter, clothing, and education should be consciously taken care of in the disaster contexts.
- Gender-disaggregated data should be collected and made available for use in disaster and relief distribution with special attention to extremely vulnerable groups.
- Programs to enhance women's capacities and knowledge in disaster management should be facilitated on a regular basis.
- Research on gender issues in disasters should be undertaken to inform policy and program interventions.
- Investment should be encouraged for strengthening the capacity of women and gender activists on climate change issues and apply affirmative action principles to draw women into climate change institutional structures and policy-making arenas.

FUTURE CONSIDERATIONS

It is by now widely accepted that failure to efficiently include women in decision-making processes around climate change mitigation and adaptation at local, national, levels not only exacerbates gender inequalities, but also undermines the effectiveness of climate change responses. There is thus an urgent need to clearly identify obstacles to women's participation in decision-making, and find ways to address these constraints through supporting grassroots awareness-raising, confidence-building and advocacy and leadership training programs. Below we highlight key recommendations for future research:

Identifying the gendered impacts, coping strategies and adaptation priorities of women and men in contexts of Bangladesh has currently been under-researched: Women and men, girls and boys, should be involved in a participatory capacity to inform climate change responses at a local level. This will enable the specific experiences and voices of people most affected by climate change to inform understandings of climate change impacts, adaptation and mitigation. This is critical if policy and practice is to respond appropriately to people's needs in specific contexts, and be informed by their everyday knowledge of coping with these phenomena.

Identifying the gendered impacts, coping strategies and adaptation priorities of women and men in urban contexts: Notably, much of the existing research on gender and climate change focuses on rural communities. More participatory research is needed into the impacts of climate change in urban settings, particularly in terms of gender in/equality, and the coping strategies and priorities of women and men in urban contexts.

Identifying the impacts of climate change on gender roles and relations at the household level: Little research has currently been done in Bangladesh into the impacts of climate change on gender relations at the household and community levels. Research is needed to determine where women's and men's priorities conflict and where there is consensus, and how policies and programmatic responses to climate change can best respond to the differing vulnerabilities, needs and priorities of women and men.

Identifying how gender affects people's consumption and lifestyles: More research is needed to document the different energy consumption patterns of men and women to inform targeted mitigation and technological adaptation strategies, such as awareness raising campaigns for the purposes of behavior change. Further research is also required into how involving women in using environmentally sound technologies could improve mitigation and adaptation at the community level.



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