

## **Women's Coping with Flood in the Ganges Dependent Area of Bangladesh**

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### **Abstract**

*The paper attempts to find out the adjustment practices of women with flood in Ganges Dependent Area (GDA) of Bangladesh. The study area is amongst the flood prone area of Bangladesh which is mostly dependent on the river Ganges (in Bangladesh, it is known as the Padma). The sources of the river are in the Himalayas, support rich ecosystems and irrigate millions of hectares of lands, thereby supporting some of the highest population densities in the world. The aim of this paper is to portray the adjustment procedures of women in Ganges Dependent Area of Bangladesh. Besides, the study also suggests some measures to deal with the flood disaster in the study area.*

**Key Words:** *Coping practices, flood, risks*

### **Introduction**

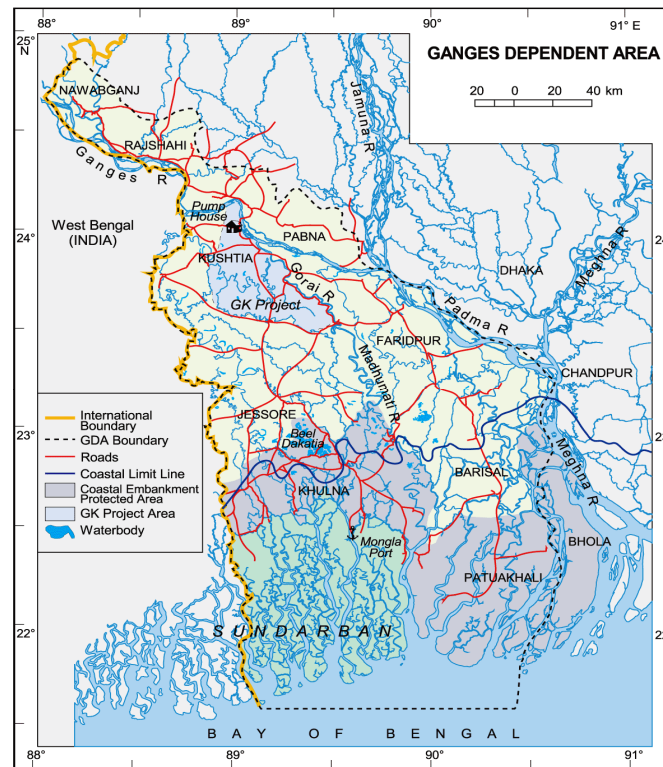
Floods have visited Bangladesh more or less every year and often have been within tolerable limits and occasionally they become devastating. Each year in Bangladesh about 26,000 sq. km. (18% of the country) area is flooded. During severe floods, the affected area may exceed 55% of the total area of the country. In an average flood, 844,000 million cubic metre of water flows into the country during the humid period (May to October) through the three key rivers the Ganges, the Brahmaputra-Jamuna and the Meghna (Ahmad, 2005). The Ganges Dependent Area (GDA) is very prone to flood disaster in Bangladesh. Although the provision for women in disaster management strategies and national water policy of Bangladesh is not highlighted there are some coping strategies of the inhabitants; especially of women with flood disaster in the study area.

### **Study Area**

Ganges Dependent Area (GDA) inside Bangladesh was considered as a study area in the present study. GDA covering almost 20% of Bangladesh is 30,000 sq. km inhabited by about 30 million people (Qazi, 1998). Nearly 35 million people in about one-third of the total area of Bangladesh are directly dependent upon the Ganges for their livelihood (Ganges River Controversy, 2009).

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**Map 1: Ganges Dependent Areas (GDA) Inside Bangladesh.**

Source: Banglapedia, 2008.

## Objectives of the Research

The research aims at the following specific objectives:

- I. to portray the nature of flood in Ganges Dependent Area of Bangladesh;
- II. to reveal the adjustment practices of women with the adverse effects of flood in Ganges Dependent Area of Bangladesh and;
- III. to suggest some policy guidelines especially for women to cope with the problem of flood.

## Methodology of the Research

The methods used for this study are a combination of questionnaire survey and case studies. Relevant data for this research were collected directly from the field by using a questionnaire which contained structured and open – ended questions containing the nature of flood, women's adjustment procedures with flood. The methodology adopted for the present study also makes extensive use of secondary material to build up and support the objectives of the study. Through

reviewing available literature, broad outlines of the general setting under which the rural women have been operating under severe flooding have been gained.

Research approach was mainly based on household interviews. The sample size was 150 households with 10 case studies for the study. The household was the unit of the sample and each questionnaire was used for one household. The method of framing questionnaire is exclusively purposive. The key part of the questionnaire inquires the flood disaster scenario and the coping strategies at the household level response. They included all types of households regardless of profession, nature of work, academic attainment, social status, political attitude, land ownership, gender perspective and other components to get a respective opinion.

### **Floods in Ganges Dependent Area (GDA)**

For a long time Satkhira, Khulna, Jessore and adjoining districts of Ganges Dependent Area of Bangladesh have been considered as flood free zone. But in recent years these districts have been inundated by floodwater almost every year successively. In September 2000, severe flood caused massive damage and sufferings in southwestern region (Uttaran, 2004). From September 9 to September 17 in the year 2009, excessive rain did fall upon in these districts due to low pressure and consequently deep low pressure in the sea (FPCO, 2009). Rain-fed floods generally happen in the deltas in the south-western part of the country. It should be noted that excessive rainfall also affected West Bengal and its adjoining states of Bihar of India. Excessive rainfall, high tide in the sea and water flow from India have created flood situation in Ganges Dependent Area of Bangladesh.

The causes of flooding and inundation in Ganges Dependent Area are various and multiple. As a result of high local rainfall and the historically eastwards progression of the mouth of the Ganges, the entire river system of GDA has evolved (Farzana, 2007). Only two rivers of significance remain connected to the Ganges-Padma, the Gorai- Modhumoti serving the GDA. The basins of rivers Kapatakha, Betrabati and Isamati have been affected by current floods in the study area. So far the basin of Kapatakha is the most flood-affected area. Because of ongoing inflow of flood water from India, the severity and damage of recent year's flood has increased significantly.

The flood has caused severe damage and sufferings for the people of this region. Millions of people have lost their homestead and lived subhuman life by taking shelter on embankment, roads and schools. The fishery and livestock sectors of this region have been severely affected by the floods. The marginal farmers were forced to sell their livestock at nominal price.

### **Coping Procedure of Women**

In the study area, majority of the women live in rural areas and they contribute considerably to the household welfare. It is stated that poor women contribute about 45 percent of the total household income annually in rural Bangladesh (Khan, 1995). Regrettably, they are confined within the four-walls of households and incessantly face many nauseating situations and risks due to the male-dominated thought and power structure. In fact, risks are the adverse effects of natural

events such as flood, drought, saline water intrusion etc. or human activities such as deforesting, building embankments etc. Traditional socio-cultural norms and practices affect women's access to formal and non-formal institutions such as educational institutions, cultural organizations etc. and services and reinforce their economic dependence on men (except the involvement of women in micro-credit). As a result, they are not completely able to cope with risks mostly arising from flood and to ensure their security and thereby leading them to the threat of relentless poverty.

They apply multiple strategies like defense mechanisms, problem solving and stress handling to face sudden risks, crises and periodic stresses in the household, which have not yet been systematically studied in Bangladeshi context. Hence, it is important to explore the coping strategies selected and practice by women to manage flood disaster risks under the complex circumstances. This study was, therefore, intended to address the following three key questions: a) what were the prominent risks to women in the household before, during and after flood? b) How did the women respond to these risks of flood? and c) What were the appropriate strategies for reducing women's household risks coming from flood? It was expected from this study that women could enhance their abilities to adapt with household adversities if productive resources and other relevant facilities were available to them by social and officially authorized institutions during emergencies. It would lead to empower women through their enhanced self-confidence, bargaining power, income and assets.

The study reveals the determinants of household selection of three types of coping practices: i) current practices, ii) unsecured loans, and iii) secured loans. The general determinants set for both of the stages include incident of natural disasters, productive asset loss, health problems, and other income vulnerabilities. In addition, a number of household characteristics: education of household head, food security status (based on their occupations), and sex of household head, non food expenditure (as a proxy for household income level), variables measuring diversity of income sources and access to stable employment, value of household assets, are also included as explanatory variables for household choice of coping strategy.

The study points out ten prime responses and also lots of small kind of adjustments by women before, during and after flood disaster in Ganges Dependent Area of Bangladesh. These can be classified in the following manner: I. Adjustments processes in small scale : includes collection of foods, collection of water, sale of women's ornaments, taking care of family health care by women, borrow grain from kin by the social network of women, repairing the house and surrounding with themselves, etc.; II. Adjustments processes in larger scale: includes sale of livestock, animals, agricultural tools and land (women's own land), female labor migration, use of credit and self employment, repairing their houses permanently with brick and cement and finally; III. Mass- migration.

The study also finds that small scale adjustment processes in GDA largely involved the activities of women, especially the poor categories. Women in poorer categories often acted as men did in making platforms, cutting bamboo, making bamboo bridges, protecting crops and livestock and engaging in income generating activities before, during and after flood in monsoon. In the study

area the kind of food consumed, the sources of food for example, own gardens, markets, stores, food as wages, the amount and the frequency of food intake varied according to socio-economic category. During floods there was a great difference in the kind of food, the amount and the frequency of food preparation and the sources of food among women in different socio-economic categories. The food supply of the poor undernourished and malnourished at the best of times, were further reduced during the floods. For adjusting with the household food consumption women play a significant role in the study area.

During the rain fed flood period it is very hard for women to collect drinking water. In Barisal and Patuakhali almost all the drinking water source (such as tubewell, well, pond, supplied water) went under water and poor as well as the middle class women had to take considerable risks to procure drinking water from distant areas. Women had to walk through chest-high water or swim or sometimes they have small boat to collect fresh or clean water. Sometimes women helped each other to get water from tube-well using the traditional practices such as they put their water pots under the flat nozzles of tube-wells and started to pump. When they see that the color of the water is different from the flood water, they raise the pots. But it is not always effective. Another technique but less successful is to hold a plastic bag over the submerged nozzle of the pump. If there are some tube-wells at high land, women from the greater distances came there and collect water by lots of hard work.

It is evident from the study that without any healthcare facilities from government or other organizations during floods, it was women who provided health care for the ill persons especially to the children and old people. Only women had knowledge about certain medicinal plants/ trees and they used herbs, roots and barks to cure family members from different types of diseases during and after disasters. Men, on the other hand, rarely did such work because providing herbal treatment or nursing was not their gender-assigned role.

The study found that some assets, such as jewellery, livestock and household items, are more likely to be sold than others during flood crisis. This is common in the study area because these are assets which usually belong to women and they are often their only assets. Women's assets were used to meet the immediate needs of the households during hazards when men's assets were kept for the future.

### **Gender Disparities**

After flood disaster women are more likely to rely on their own economic resources than before the disaster. Poor wives are treated as an economic liability after the disaster (UNDP, 2008). Studies show that government relief agencies denied relief to women as they were assumed to be supported by husbands. After losing the jobs directly or indirectly, it takes longer time for women than men to be employed. In the post-disaster situation both men and women need income sources. But the main target for post-disaster relief and construction work project, targeted men over women.

## Conclusion

In Bangladesh, disaster like flood, tend to be isolated in the perceptions of planners as a humanitarian issue to which ad hoc responses are made in the form of immediate relief, after which life goes on as before till the next crisis. It appears also to be a concern of geological and environmental scientists and activists but has yet to be integrated into an overall development perspective. Women in Ganges Dependent Area have not been fully mainstreamed in all policies and programmes at national and local levels in Bangladesh. It has yet to be recognised as a crosscutting issue even after four decades of international concern and advocacy by women's organisations. Women should be considered as an important stakeholder in flood management in all policies and strategies adopted by Government.

Women are the major victims of environmental hazards especially floods that often damage their crops, livestock, fish stocks, property and lives. This article tried to look into the women's coping practices with disaster, based on the real experiences of women affected by flood in the Ganges Dependent Area of Bangladesh. To live with such vulnerable situations arising from flood disaster women need to display enormous strength and capacity in managing risk to rebuild the damaged livelihoods and guarantee their family survival. Government need to play a vital role to help women to cope with flood disaster in Ganges Dependent Area of Bangladesh.

## References

- Ahmad, F., and Mirza, M. Q. (2005). *Bangladesh Development, Resources and Constraints*. Bangladesh Development Dialogue, Issue number 1.
- Farzana, N. (2007). *Water Disputes in South Asia*, the Institute of Strategic Studies, Islamabad.
- FPCO. (2009). *Bangladesh Water and Flood Management Strategy*. Dhaka, Bangladesh: Flood Plan Coordination Organisation, Government of Bangladesh, October, 2009.
- Ganges River Controversy. (2009). TFDD – *Transboundary Freshwater Dispute Database*, found at <http://www.transboundarywaters.orst.edu/projects/casestudies/ganges.html>.
- Khan, A.H. (1995). *Ganges Water Sharing : An Overview in Women for Water Sharing*. Edited by H. Maudud. Dhaka, Bangladesh: Academic Publishers.
- Qazi Kholiquzzaman *et al* ed. (1998). *Perspectives on Flood*, University Press Limited, Dhaka.
- United Nations Development Programme (UNDP), (2008). *The Human Development Report 2008 on Environment*. Dhaka, Bangladesh: United Nations Development Programme.
- Uttaran, (2004). *Flood Situation Report of Southern Region of Bangladesh*, Uttaran, Tala, Satkhira.