Gender Perspective in Disaster Preparedness a Study in Flood-prone Areas in Rural West Bengal

–Pradipta Dubey, Tanmoy Pal, Atonu Chatterjee and Subhrangsu Santra[1]

Abstract

Despite of having strong historical background the district Murshidabad of West Bengal is one of the backward districts with a position of 15th out of 17 undivided districts (now 19 districts) of West Bengal as per the Human Development Report published in 2004. The district Murshidabad is suffering from many social ailments; one of which is recurring flood. In this study we tried to represent how people – in gender perspective – prepare themselves to overcome the situation by exploring the local indigenous knowledge through the active participation of women in an organised way. The study reveals that how active women participation could change the dimension of the process of implementing any programme. The findings of the study again indicate that women have the better understanding than the male counter part with the society and any social problems as they have to take more responsibility at the time of disaster.

Key Words: Disaster, Flood, Gender, Participation, Task Force, SHGs, Opinion Leader

DISASTERS : EMERGING PARADIGMS

In a recent comparative study on disasters that took place between 1974 and 2003, Centre for Research on Epidemiology of Disasters (CRED), Belgium, placed India with global rank of 3 in terms of *number of disaster events* and global rank of 2 in terms of *number of victims*. Between the time period 1974-2003, India faced 303 disaster events which rendered 1832 million of victims. On the other hand, USA faced 506 numbers of

1 Dr. Santra is Head and Assistant Professor of Department of Rural Development and Management, University of Kalyani; West Bengal [India] and others are Research Scholar of the same department ; Email: subhrangsusantra@yahoo.co.in

Table 1: Global Comparisons of Disasters: 1974 -2003

	Number of disaster events	*Global Rank*	*Victims In Millions*	*Global Rank*	*Mean annual victims per 100,000*	*Global Rank*	*Damage US$ (Million)*	*Global Rank*
India	303	3	1,832.0	2	7,413.5	9	43,378	5
China	388	2	1,924.5	1	5,297.5	18	180,279	3
USA	506	1	4.6	42	58.9	124	285,923	1
Japan	128	9	6.6	32	182.1	106	187,928	2
UK	47	32	0.4	102	28.0	135	15,643	21
Brazil	112	11	49.7	8	1,195.9	68	18,443	16
South Africa	56	26	4.0	45	380.2	87	2,408	52
Bangladesh	174	6	375.1	3	12,338.5	3	17,851	17
Philippine	268	4	74.8	5	3,958.6	25	9,994	25

(Source: Centre for Research on Epidemiology of Disasters, Leuven, Belgium, 2007)

disaster events but, with a high degree of disaster preparedness, only 4.6 million people bore the brunt. Globally, there has been a growing interest, investment and research on disaster management. As a result, within very recent past, there has been a remarkable paradigm shift from post disaster relief and rehabilitation orientation to the pre disaster preparedness, prevention and mitigation.

United Nations (UN) defines disaster as "the occurrence of major misfortune which disrupts the normal functioning of a society or community." An event may be a disaster along certain dimensions, viz. ecological, economic material, psychological or social, but not necessarily along all of these in any particular event. Disaster or emergency situations originate from several causes. These include natural disasters; environmental hazards; man-made disasters such as riots and conflicts; fires; industrial, agricultural and mining accidents; road, rail or plane accidents etc. The social and human impacts vary depending upon the geographic, socio-economic, political, social and cultural contexts.

Disasters, introduce many uncertainties which stand as obstacles for individuals or families to perform day to day activities that are part of normal life. It is not possible for an individual herself or a family itself to overcome or manage these uncertainties. From this context the concept of Community Based Disaster Management (CBDM) is introduced. *Community Based Disaster Preparedness (CBDP)* is a strategy of CBDM**.** It is understood as a process to ensure participation of all stakeholders to reduce loss and damages through capacity building initiatives. It is assumed that community has its own potentials to face the disaster but may not be organized to do it. The capacity building initiatives ensure the sustainability and ownership of the CBDP process by the local community.

GENDER IN THE CONTEXT OF DISASTER MANAGEMENT

Kate Young, in *Towards the Theory of Social Relation of Gender*, defines gender as "the whole set of expectations held as to the likely behaviour, characteristics and aptitudes men and women will have. It refers to the social meanings given to being a men or women in a given society". While discussing gender, we generally refer to the social differences and relations between men and women, which are learned and transformed. The term gender does not replace the term sex, which refers exclusively

to biological differences between men and women.

A Disaster exposes the existing inequities and imbalances in a society-involving economic, social or gender inequalities. The hazards have a differential impact on both men and women resulting from gender division of health, sharing of labour, socio – cultural and educational status of women, imbalanced access and control over the resources and information due to their limited entrance and exposure.

In India, until recent past, there was no clear policy or guideline to incorporate a gender sensitive thinking in Disaster Management activities. It was basically a relief-centric approach, where the preparedness and mitigation strategy were almost invisible.

Women's rights to compensation and entitlements came into reality only after 1999 Orissa Super Cyclone and the issues were critically analyzed after the Tsunami. Oxfam's report on "Tsunami Impact on Women" (2005) has revealed that the Tsunami killed more women than men in the worst affected areas. In Nagapattinam, the worst affected district of Tamil Nadu, Government statistics state that 2406 women died compared with 1883 men. In Cuddalore, the second most affected district of Tamil Nadu, almost three times as many women died than men. In Devanampattinam village 42 women died compared with 21 men. In Pachaankuppam village the only people to die were women. There were also a remarkable number of reports of rape, sexual harassment, denial of basic rights and entitlements to the tsunami-affected women victim. The report highlighted the need for focusing gender issues at all levels of disaster management activities, as early as possible.

As a result, today, there is an increasing focus to incorporate the gender perspective into all segments of disaster management as well as on mainstreaming gender equity in developmental programmes. In this connection, we are inclined to refer to section 61 of the Disaster Management Act of India, 2005, which mandates to prohibit discrimination in the distribution of compensation and relief to victims of disaster on the ground of sex, caste, class or religion. Many organization & institution including National Disaster Management Authority of India recently have raised their concern for the urgent need to address the issue of vulnerability reduction in a more equitable & gender sensitive as well in a more intensive and comprehensive manner. Policy documents published by the state governments also reflect similar concern.

It is in this background we feel the need to look into the implementa-

Table 2: Gram Panchayat wise characteristics of 16 sampled villages

Gram Panchayat	*Total Household*	*Total Population*	*Sex Ratio*	*Literacy rate*			*Work Participation Rate*		
				Total	*Male*	*Female*	*Total*	*Male*	*Female*
Andulia	1955	9459	921	41.2	50.6	30.9	31.8	54.2	7.5
Hizole	3766	18215	945	41.5	51	31.5	31.5	52.1	9.8
Gundiria	843	4011	871	50	59.9	38.5	31.8	56	3.9
Alugram	1576	7705	943	47.6	54.3	40.1	31	53.1	7.5

(Source : Census 2001)

tion of such programme and nature of gender participation in the implementation. The specific objective of our study is - *to understand how gender, as a factor, influences the participation of individuals in disaster preparedness intervention.*

BACKGROUND OF THE STUDY AREA

The study was conducted in four Gram Panchayats[2] in Murshidabad district of West Bengal. Murshidabad, one of 19 civil districts of West Bengal, has a long recorded history of natural disasters, which include instances of flood & erosion. However, the grimmest part of this sad history has been caused by successive floods. This is probably due to the fact that, compared to its size, the Murshidabad district is traversed by a large number of rivers. The earliest flood, that has found mention in Calcutta Gazette, took place in 1785. "Serious floods are known to have occurred in 1823, 1834, 1838, 1848, 1856 & 1866". (O'Malley,1914). During the years of 1867, 1871 and 1881 there were serious floods. The flood of 1900 was also recognized as worst for many years. (Walsh, 1902).

Out of four Gram Panchayats, two Gram Panchayats, Andulia & Hizole, fall under the block of Kandi, while other two Gram Panchayats, Gundiria & Alugram fall under the Bharatpore – I block. There are 58 Gram Samsad in 4 selected Gram Panchayat out of which 52 Gram Samsads are flood prone. Four (4) villages from each of (4) Gram Panchayat were studied, i.e. total 16 villages were studied. A profile of the 16 sampled villages is given in Table 2 after Gram Panchayat wise grouping of the data.

The Gram Panchayats which constitute study area belongs to the *Rarha*[3] geographical region. The rivers in this part originate from hill torrents and they are prone to overflowing due to sudden rain. Two rivers flowing through this region, namely *Dwarka* and *Mayurakshi* join the famous *Hijol* Lake which is also situated in the same region. Both of these are western seasonal rivers. Besides, two more old channels of *Mayurakshi* known as *Kana* (blind) *Mayurakshi* and *Mora* (dead) *Mayurakshi* flow

2 Gram Panchayats are the lowest tier of 3-tier Panchayati Raj Institutions (PRIs)- a local self government system for the rural areas in India.

3 The Rarha is the western part of two broad geographical regions created due to bifurcation of the triangle shaped district by river Bhagirathi with a striking difference in its geology from the eastern part which is known as the Bagri. The land in Rarha area is high, slightly undulating, having the pre-dominant geographical character of a plateau but is interspersed with numerous swamps and beds of old rivers.

through the area, apart from three narrow and shallow canals used for irrigation. All these channels form a network that meet the *Hijol* Lake.

In September 2000, Kandi and Bharatpore – I Block suffered the worst flooding by Mayurakshi. The river breached its embankment and 25 ft water cannon swept the area in no time. The villagers did not get any opportunity to take precaution to protect themselves, their families, properties, cattle etc. Within hours flood water raised up to 15 feet. The loss of human lives, cattle and huge property created long lasting effects on the lives of the victims and the non victims as well. The study area suffered from flood again in 2003 followed by 2006. However, damages were smaller in later years compared to 2000 flood.

In response to devastation caused by floods, UNDP initiated a Community Based Disaster Preparedness (CBDP) project in with the goal of *reduction of damage and loss due to disaster at family and community level through preparedness*. In the study area, the project was implemented by a local NGO. Major steps of the CBDP project are-

1. *Sensitization meetings*- The sensitization meetings are conducted in two stages.

First, local opinion leaders (religious leaders, political leaders & Gram Panchayat members) were contacted & explained about the project. The project area had a Muslim majority population. On the basis of practice wisdom, it was considered to enlist the support of religious leaders. It may be noted that a similar approach of building rapport with religious leaders is also followed for Pulse Polio Campaign.

Second, large group meetings with villagers in each Gram Samsad are conducted. The topics covered in sensitization meetings include the concept of disaster preparedness, its rationale, and implementation aspects of the CBDP project & how the project intends to help villagers. At the end of the sensitization meetings, dates for conducting the Participatory Learning & Action (PLA) exercises are fixed.

2. *Participatory Learning & Action (PLA) exercises* – At the Gram Samsad[4] level, small groups are formed from the inhabitants & other interested persons. On the fixed date the groups walk through the Gram Samsad to have a clearer idea of the geography of whole

4 As defined in The West Bengal Panchayat Act,1973, a 'Gram Samsad' means "a body consisting of persons registered at any time in the electoral rolls pertaining to a constituency of a Gram Panchayat delimited for the purpose of last preceding general election to the Gram Panchayat".

area. This technique is called *Transect Walk.* After Transect Walk, the groups come together at a place to draw a map (which is called *Resource Map*) which contains pictorial representation of various socio-geographical information of the Gram Samsad. Such data include residential area or hamlets, number of houses in each hamlet, high & low areas, tube wells, school building, ICDS building, flood shelters, agricultural fields, ponds, river, canal, roads, bridges, culverts and so on. In short, whatever items/data villagers may think connected with flood preparedness are included in resource maps.

3. *Plan of Action*- On the basis of Resource Maps & discussion among themselves, villagers prepare draft Plan of Action (PoA) which are submitted in Gram Samsad meetings for discussion & necessary modification. After approval of PoA by Gram Samsad, it is submitted to Gram Panchayat for final approval.

A typical PoA contains activities which are to be executed by villagers themselves (like plantation of more bamboo trees near embankments & beside roads); activities which are to be executed by Gram Panchayat or referred to Block (like construction of flood shelter or raising the platform of tube wells) ; activities which are to be executed by NGO/ other organization (like training).

4. *Task Forces* – In general four (4) task forces are formed for each Gram Samsad. These task forces looked into the issues of – Early Warning & Rescue; First Aid, Health & Hygiene; Water & Sanitation; Safety of child & other vulnerable persons. Each of task forces were trained by the project implementing organization
5. *Training & capacity building* – Apart from training of task groups, villagers in general were also trained on issues like quick preparation of temporary shelter; mobilization of necessary things & important documents into family survival kits; maintenance of basic hygiene during flood etc.

METHODOLOGY

There are 10 Gram Panchayats in Kandi Block & 8 Gram Panchayats in Bharatpore-I block. From each block two most flood affected Gram Panchayats were selected. There are 58 Gram Samsads in 4 selected Gram Panchayat. Out of 58 Gram Samsads, 52 Gram Samsads are flood prone and are under coverage area of CBDP projects. From each Gram Panchayat, 4 most flood affected Gram Samsads (ranked on the basis of

consultation held with Gram Panchayat) were selected. Thus there were 16 Gram Samsads in the sample.

Selected Gram Samsad areas were visited for interaction with SHGs & Task Forces. Individual interviews were conducted with NGO personnel & key informants. Review of various documents at Block office, Gram Panchayat office & the local NGO office were also done.

FINDINGS & ANALYSIS

A. Dissimilar pattern of motivation - It can be seen from *Table 3* that throughout the project life, rate of women participation was substantial. In fact, number of female participants in various tasks was never below 50 percent. Further, as the stages made progress, share of female participants increased. This is definitely a feature notable enough.

On the basis of qualitative group discussion held during field work, we found the following causative factors which motivated women in participating in various activities–

1. The traumatic experiences of floods in earlier years motivated them to participate in greater number than their male counterparts. The women in the study area experienced greater degree of disruption than men during previous floods. It happened because of dissimilar type of socialization process men & women undergo.
2. The different types of socialization in rural areas tend to promote conformity with prevalent & stereotyped social roles. For a poor rural woman, such conformity means devoting more time for managing household's duties & child rearing. During the disaster, managing her own life becomes harder than men as she cannot have private & closed space. Managing the child comes as an additional burden for her.
3. During the post-disaster period, women face difficulties more to manage household chores. For example, she may have to walk more to fetch drinking water if the nearby tube well is submerged during flood rendering its water not suitable for drinking.

Thus, gender, as a social construct, produces dissimilar motivation among men & women. In the context of disaster, the motivation for better preparedness is greater among women than men which explain higher participation of women than men.

So, the disaster has the different meaning to men and women. Women

Table 3: sex wise share of participants in disaster preparedness

Processes/Stages	*Place / Environment*	*Average % of participants*	
		Female	*Male*
Gram Sansad level mobilization for conducting PLA & sensitisation meetings	Community	52.43	47.57
PLA - for generation of resource map & preparation of Plan of Action	Community	58.31	41.69
Gram Sansad Meeting - presentation of written Plan of Action (PoA) / Village Development Plan	Community	59.77	40.23
Participation (on regular basis) in Meeting, Training, Workshop etc	Small Group	64.16	35.84
Participation in activities of Task Forces (TF)	Small Group	71.84	28.16
Mobilization of Family Survival Kit (FSK)- preservation of food, fodder, fuel & documents for disaster situation	Family	81.52	18.48

(Source : Primary data collected from field)

have to suffer more than men due to their lower position in the society. Their bitter experiences and realization forced them to participate more in the process of disaster preparedness.

However, internal (psychological) motivation does not offer a full explanation of such unusually high rate of women participation. At least, four (4) other external factors, on which we will discuss in subsequent sections, favourably affected the participation of women in disaster preparedness. These factors are-

- pattern of work participation
- pattern of household management roles
- role of local opinion leadership
- existence of self help groups & their role

B. Pattern of work participation- As shown in Table 4 average work participation rate is only 31.5 % while 53.2 % of male population is included in worker category. However, female work participation rate is only 8.2 % in the study area, though a low standard deviation & high value of coefficient of variation (CV) indicates that there are few exceptions among the villages. On the other hand, share of female non workers among female population is 91.8 % with low standard deviation & low value of coefficient of variation (CV).

Table 4: Characteristics of sample villages

	Average	*Standard Deviation (SD)*	*Coefficient of Variation (CV)*
Sex Ratio(FMR)	931	49.8	5.4
Literacy Rate	43.5	11.8	27.2
Male Literacy Rate	52.5	12.2	23.1
Female Literacy Rate	33.8	12.0	35.5
Work participation rate (WPR)	31.5	4.5	14.3
Male work participation rate	53.2	4.0	7.5
Female work participation rate	8.2	7.6	92.7
Total Non Worker	68.5	4.5	6.6
Male Non Worker	46.8	4.0	8.6
Female Non Worker	91.8	7.6	8.3

(Source: Census 2001)

These indicate that women were comparatively less engaged in occupational activities in study villages. So we can infer that it was easier for women to take part in disaster preparedness activities.

C. Pattern of household management roles- Although women participants were more than men participants in each stage of the CBDP project, it can be seen from Table 3 that –

- Average percentage of male participants was more than 40% during the Gram Samsad mobilization, during the PLA & at Gram Samsad meetings. Interestingly all the three types of processes were carried out in open community setting.
- Women participation was lowest during the three phases. In next two phases, processes like meetings, workshops & training of task forces were conducted. These are conducted in closed group settings. It can be seen that women's rate of participation were more in processes carried out in group settings than in processes carried out in community settings.
- In the task of mobilizing Family Survival Kits, which is done in household or family setting, women's rate of participation was highest (81.52 %), while fewest men were involved in this process.

Clearly women's participation was most when the activities were carried out in household; comparatively lower when the activities are conducted in groups; and lowest when the process was conducted in community settings. For the men, the scenario of participation is vice versa. The main causes which lead to such pattern of participation are-

1. *The prevalent pattern of division of labour* - Traditionally, women carry out responsibilities to manage the household chores like cooking, fuel management, cleaning, sweeping, storing drinking water etc. while male members go outside to earn wages. Due to engagement with household jobs women general find it hard to get time to engage in community roles. It is due to this reason percentage of women were comparatively lower in the activities like Gram Samsad mobilization, PLA & Gram Samsad meeting etc. On the other hand, women were better equipped to mobilize family survival kits as they did not have to move far from house to complete this task.
2. *Physical absence of men are when the flood is approaching*- In this region, men, during daytime, largely remain outside the house

as they have to manage agricultural activities on field or have go outside the village for earning wages. Consequently, they are somewhere else other than dwelling house when the flood comes. So there is little scope for men to involve in mobilizing family survival kits. Even when men have not gone outside, it has been found that they get busy in moving the crop, livestock, and poultry birds to higher place to save those resources when the flood approaches.

Interestingly, similar behaviour has also been noted by Ariyabandu & Wickramasinghe (2003) among the rural villagers of Punjab province of Pakistan.

D. Role of local opinion leaders- It has been known from the NGO personnel that Islamic religious leaders & local political leaders (including Gram Panchayat members) were patiently & strategically persuaded at the inception stage of the project and even before conducting PLA. However, role of religious leaders deserve a special mention.

Except the Alugram Gram Panchayat, the other three GPs have Muslim population concentration. The Mosques are regarded very important institutions in these villages & the religious leaders command a good amount of control over formation of public opinion. It is a common belief among the Block & Gram Panchayat level functionaries that with the consent & moral support of religious leaders, development programmes can be more successful in these areas. In this connection, a local graduate who was involved in NGO activities commented that "*taking part in these activities require the women to be out of house for long time which many villagers believe is a prohibited practice as per religion. Yet high rate of women participation became possible as there was enthusiasm on the quarter of the Mosque*". During group interactions number of women participants reported that male members of their family did not put restriction on their movement, imposing what was considered to be usual behaviour in other respects, when they came to attend workshops, camps or had to visit Gram Panchayat/NGO office.

It can be deduced from above discussion that local Islamic religious leaders figured that there was nothing antagonistic to religion if people, in general, & Muslim women, in particular, take part in disaster preparedness activities since this had direct connection with saving life of self & others. Though not explicitly stated it can also be inferred from the above discussion that consent & support of religious leaders were inversely correlated with degree of restriction imposed by male members of the

family on the female members. Therefore, religious belief & opinion of religious leaders may play a crucial role in realizing or restricting participation of both gender and, especially of women.

E. Existence of Self Help Groups & their role- On an average, there were 2/3 Self Help Groups (SHGs) in each of the 52 Gram Samsads of 4 selected Gram Panchayats when the CBDP project was started. The SHGs provide an enabling environment for the rural women to come out of house and take part in disaster preparedness activities. The group dynamics build a positive impact on the mind of women, who realize that there are a larger section of women who have similar problems and life situations. This gives a platform to the women for creating a common bond. The members of SHGs are mostly poor women as most of SHGs are comprised of only women members.

During the interaction**,** many SHG members reported that they took active part to communicate to other women living in neighbourhood to take part in training camps & workshops. One vocal SHG member, Mumtaj Begum of Alugram commented – *"before the promotion of SHG we were engaged only in our house activities. But after promotion of SHG, we joined in this group and now we are in a better position to take many decisions instantly and also we are the member of the Task Force of CBDP*".

CBDP project encouraged the women as well as the entire community to build connection & get help from the mainstream development & administrative system. Linkage with block level offices & Gram Panchayats were absolutely necessary to get timely information of impending flood for early warning, and also for procuring aids & materials like bleaching powder, first aid kits, sanitary napkins etc. SHGs have been particularly helpful to create confidence among women to access the Gram Panchayat & Block level offices. Due to repeated visit to Block office, some of SHG members' face became so much known to officials that, an Animator of SHGs said, –*"sometimes they become more effective than NGO officials to get the work done"*.

It is clear that the SHGs played an enabling & critical role not only by encouraging women in coming out of house for participation in disaster preparedness activities, but also instilling confidence among women to face administrative systems for accessing various resources & to maintain coordination with mainstream development system.

F. Quality of participation- Robert Chambers (2002) used an analogy of a ladder to explain various stages of people's participation. In his 'ladder

of participation', six (6) stages in sequence of qualitative advancement are - *passive, consultative, contributory, functional, interactive,& self mobilization.* While most rural development projects are regarded to incorporate the elements of one or more from first five (5) categories of participation, very few projects or programmers or organization strive to elevate the community to the self-mobilization category. In the 'self mobilization' stage, the community becomes aware of their need & find solution of their problem without help or little help of the outside development agencies.

In the whole CBDP process, two modes of participation are easily identifiable. These are 'functional participation' and 'interactive participation'. Functional participation took place during the training workshops & operation of task groups. On the other hand, interactive participation took place during PLA exercises, preparation of plan, & presentation in Gram Samsad meetings. These two type of participation occurred as per expectation laid down in project design.

However, there was an elevation in the quality of participation when some SHGs collectively started to use their micro-savings to form a cash contingency fund with a goal to use the fund during the flood and just after flood. During the period of flood & just after flood, there is a dearth of cash at the disposal of the poor families. There is hardly any scope to earn daily wages immediately after flood as the flood render a large portion of the agricultural land waterlogged. A cash contingency fund comes handy at this juncture to purchase food primarily and, also for repairing of houses. During this critical period, approaching the bank is regarded an unwelcome & hazardous task. Hence, to access the savings with ease and in time, the idea of cash contingency fund came. The SHG members together withdraw a certain amount of money from bank account whenever they see a possibility of flood. This liquid money is given as credit to the SHG members' family for the purpose of consumption as per the situational requirement.

Undoubtedly, the idea of cash contingency fund was a novel & an innovative one. This can be termed as a form of 'self mobilization' since the community members themselves innovated this solution. But more interestingly, the cash contingency fund has been observed to be maintained & operated only by women-only SHGs. No SHGs having men-only membership or mixed membership was found to create such cash contingency fund. Women SHG members share a stronger psychological bond than the men. The elements of mutual faith, interdependence & intra-group accountability are stronger among women SHGs than men-

only SHGs or mixed membership SHGs. The existence of these crucial elements among women SHGs explain why 100 % of participants involved in creation & maintenance of cash contingency fund related were women.

CONCLUSION

The brief analytical endeavour produced above on the basis of predominantly qualitative nature of field interaction shows that there exist an interplay of a number of factors which determines the way women & men prepare themselves for disasters. Five (5) such identified factors are –

- Vulnerability experienced by individuals and the resultant motivation
- pattern of work participation
- pattern of household management roles
- role of local opinion leadership
- existence of self help groups & their role

The first factor may be regarded as an intra-personal factor in regard to participation in disaster preparedness activities, while other factors are social in nature.

But these factors produce dissimilar social experiences for men & women. The social experiences play important roles in determining the level and nature of motivation & responses to social stimuli. Thus gender becomes an explanatory variable in understanding the nature of participation of individuals in disaster preparedness activities.

There should not be any dilemma in making inference that above mentioned external factors need to be taken into account in designing & implementing any initiative that aims to reduce the disaster vulnerabilities of a community in a gender sensitive way. But more importantly, effort should be made to make people conscientious how prevailing social situation is affecting their life. We have already seen that the SHGs were instrumental in empowering the women who innovated the concept of cash contingency fund during the flood. Such instances provide the reason to believe that a conscientious approach may lead to empowerment of people & positive social changes.

REFERENCES

1. Advanced Centre For Enabling Disaster Risk Reduction. The Role of Microfinance and Microinsurance in Disaster Management (Research Brief 2). *UNISDR*. http://www.unisdr.org/files/20073_researchbrief2roleofmicrofinanceind.pdf. (accessed 25 July 2011).
2. Ariyabandu, M. & Wickramasinghe, M. (2003). *Gender Dimensions in Disaster Management - A Guide for South Asia.* Colombo: Intermediate Technology Center.
3. Centre for Research on Epidemiology of Disasters. (2007). *Thirty Years of Natural Disasters 1974-2003: The Numbers*. Belgium: CRED.
4. Chambers, R. (2002). Operationalising Participatory Approaches in Natural Resource Management. *Report of the Workshop on ABC Workshop.* Ahmedabad: Development Support Center.
5. Department of Disaster Management, Government of West Bengal. (2005). West Bengal State Disaster Management Policy & Framework. Kolkata, West Bengal: DoDM-GoWB.
6. Department of Law. (2009). *The West Bengal Panchayats Act, 1973.* Kolkata: Government of West Bengal.
7. Department of Relief. (2003). *An Outline of Disaster Management Plan (2003-04).* Kolkata: GoWB.
8. Dhar. & Chakarbarti, P. G. (2006).Emerging Framework of Disaster Management in India. *Yojana*, May, 4-8.
9. Dhar. Chakrabarti, P. G. (2011). Disaster Management & Climate Change: India'a Risk Management - Policy Frameworks and Key Challenges. *indiaenvironmentportal.* Edited by Malini Mehra. Center for Social Market (India). http://www.indiaenvironmentportal.org.in/files/Swiss_Re_Disater_Management.pdf (accessed August 25, 2011).
10. Ministry of Law. (2005). *Disaster Management Act, 2005*. New Delhi: Ministry of Law, Govt. of India.
11. NDMA,GoI. (2010). *National Disaster Management Guidelines-Role of NGOs in Disaster Management.* New Delhi: National Disaster Management Authority, Govt.of India.
12. O'Malley, L.S.S. (1914). *Bengal District Gazetteers - Murshidabad.* Calcutta: The Bengal Secretariat Book Depot.
13. OXFAM International. (2005). *The Thunami's Impact on Women.* Briefing Note. UK: OXFAM International.

14. Parasuram, S. & Unnikrishnan, P. V. (2000). *India Disasters Report – Towards a Policy Initiative.* New Delhi: Oxford University Press.
15. UNDP & GoWB Department of Disaster Management. (2009). *Biporjoy Byabosthapon Prokolpe Mohila o Puruser Boisomyo Nirosone Samata Bidhan (In Bengali Language)*. Kolkata: Department of Disaster Management,GoWB.
16. UNISDR., UNDP. & IUCN. Making Disaster Risk Reduction Gender Sensitive - Policy & Practice Guidelines. *Gender-Climate.org.* June 2009. http://www.gender-climate.org/pdfs/9922_MakingDisasterRiskReductionGenderSe%20copy.pdf (accessed July 28, 2011).
17. Walsh, J. H. T. (1902). *A History of Murshidabad District (Bengal) : With Biographies of Some of its Noted Families*, by J. H. Tull Walsh, (37-40). London: Jarrold & Sons.