

GENDER IN COMMUNITY BASED DISASTER MANAGEMENT

Yoko Saito

Researcher, United Nations Centre for Regional Development Disaster Management Planning Hyogo Office

Edward Yutaka Sumoto

Research Assistant, United Nations Centre for Regional Development Disaster Management Planning Hyogo Office

1-5-2 Wakahama-Kaigan-Dori, Chuo-Ku, Kobe 651-0073, Japan

Abstract: A “community” is not a homogeneous entity and some groups within the community can be more vulnerable to the risk and effects of disasters than others. The UNCRD Disaster Management Planning Hyogo Office project entitled “Gender in Community Based Disaster Management (CBDM)” has been launched to reduce community vulnerabilities and strengthen their capacities through community participation. This project aims to implement the Hyogo Framework for Action, which reaffirmed that “a gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training”, and to achieve Millennium Development Goal (MDG) by 2015. Gender equality, which refers to the equal rights, responsibilities and opportunities of women and men, is one of the key elements for achieving the MDGs. In order to achieve these goals, UNCRD promotes gender perspectives in disaster preparedness and development planning at government and community level, empowering both women and men through decision-making and planning to make safer and secure communities against disasters. This paper describes project implementation in four project countries including preliminary research, which pursued opportunities to analyse and integrate gender dimensions and strategies to empower women as well as men in disaster management and further to implement disaster management trainings in communities.

Keywords: Gender, Community Based Disaster Management, Risk reduction, capacity and vulnerability

1. Introduction

1.1 Gender perspectives in disaster risk reduction

A disaster is a severe disruption to a community’s survival and livelihood systems, resulting from people’s vulnerability to hazard impacts and involving loss of life and/or property on a scale which overwhelms their capacity to cope with. For sustainable development to be considered ultimate goals for human beings, it is essential to work on disaster risk reduction. Disaster risk reduction has different definitions of the term in the technical literature but it is generally understood to mean “the broad development and application of policies, strategies and practices to minimise vulnerabilities and disaster risks throughout society (Twigg, 2007)”. There is an international acknowledgement that efforts to reduce disaster risks must be integrated into policies, plans and programmes for sustainable development and poverty reduction.

The term “gender” is a neutral term that refers to a set of notions and case-specific social norms and expectations in a given society in regards to the likely behaviour, characteristics, and attitudes of both men and women. Therefore, the notion of “gender” and its associated roles and expectations are not determined biologically but depend on where the person was born and grew up. Although much of the focus of gender related issues centres on women, gender is an all-encompassing social issue that pertains to both sexes and therefore should involve the male perspective as well. However, it is a fact that, in general, women are poorer than men and often have different and/or unequal ownership rights, access and control of resources, or are faced with social segregation that exclude them from decision making and/or social and economic opportunities. Worldwide, they also tend to be more frequently exposed to physical and psychological harassment and violence at home and in workplaces. These factors make women more vulnerable in day-to-day life and especially during emergencies. For example, the Indian Ocean Tsunami disaster in 2004 resulted in

the higher fatality of women and children in comparison to men. Some factors attributed to this result were that the women stayed behind with or to look for their children and elders and also because men, more often than women, could swim and climb trees. Indeed, a majority of towns and districts in both Indonesia and Sri Lanka reported male survivors outnumbering women by 3 or 4 times, for example in North Ache district, Indonesia, where more than 77 % percent of the casualties were women (Duryog Nivaran ,2005).

On the other hand, certain characteristics of socially defined gender roles may have different means to contribute to disaster risk reduction. Women and men have different ways of networking and disseminating information in the society. Women, through traditional feminine ways, tend to create more socio-emotional oriented ties, whereas men, through traditional masculine ways, tend to create more institution-oriented networks. Like so, it is increasingly acknowledged that different social networks can be allocating resources in different ways (Emmerik, 2006). The results from the surveys, utilized in the preliminary research conducted during the Hyogo Trust Fund (HTF) IX project year, showed that women felt that the most reliable source for obtaining disaster-related information were neighbourhoods and their communities, while men tended to rely on mass media in Nepal. Another study reported that women farmers prefer seasonal climate forecast information to be made available through extension officers or schools rather than through radio, because they are less able to schedule a fixed time to listen to the radio due to their domestic chores, child care, and farming. Women also prefer on-site information dissemination, in an environment where queries can be handled immediately and discussions can take place (UN/ISDR, 2002).

Thus, disaster risk reduction should be approached through different means relating to the multi-faceted viewpoint of gender. The effective utilisation of gender-based social networks is an essential strategy to reduce disaster vulnerabilities. The strategy must be based on participatory planning, which leads local people towards initiating action. This process can be a window of opportunity for both men and women to reduce their vulnerabilities and strengthen their capacities to make a disaster resilient community.

1.2 Disasters in development

So-called “natural” disasters continue to claim thousand of lives each year all over the world. According to the International Federation of Red Cross and Red Crescent Societies (IFRC, 2007), compared with 2005, the number of people reported to be affected by disasters dropped by 10 percent to 142 million in 2007. However, while the numbers of disasters, deaths and people affected were lower in 2006 than in 2005, the trend in the past ten years shows a large increase of those affected over the previous decade. The devastating cyclone Sidr, which swept through Bangladesh, killed 4,234 in November 2007. These disasters pose a significant threat against the development efforts of developing nations and against achieving the Millennium Development Goals (MDGs) by 2015. The tendency to see “natural” disasters in isolation is becoming rare since the linkage between disasters and development has become clearer with this recognition that the impact of disasters often exacerbates the daily suffering of most of the population. While hazards are natural, there are real “root-causes” within society such as the lack of access to power and less opportunity for participation in policymaking, which create greater risks for disasters. Therefore, disaster management should be more directly integrated into the overall development process and planning.

Community participation is another crucial aspect in order to achieve sustainable development. There are various levels of community participation:

1. Information Sharing: People are informed of development projects and how it may affect them, so that they can (theoretically) decide on their level of involvement;
2. Decision-making: People are involved in the design, implementation, and monitoring of a project, influencing its development at every stage; and
3. Initiating Action: People organise themselves to take action in the face of a shared problem or areas of interest, rather than responding to the initiative of outside agencies (Eade and Williams, 1995).

However, a “community” is not a homogeneous entity. It consists of a mixture of linguistic, ethnic, religious, geographical, social, gender, and other diverse characteristics. The term “community involvement” is not enough to assume that communities will allocate the benefit equally within communities. Planning, regulation, integration, institutional systems, partnerships and accountability are relevant to everyone, because they are issues likely to affect any initiative in disaster reduction, development or relief, so governance needs to be ensured in times of initiating any community based projects.

1.3 Gender in regional development

The Fourth World Conference on Women (1995) adopted the Beijing Declaration and Platform for Action, which aimed to remove the obstacles to women's active participation in all spheres of public and private life through a full and equal share in economic, social, cultural and political decision-making. This means that the principle of shared power and responsibility should be established between women and men at home, in the workplace and in the wider national and international communities. Gender equality and girl's education are also vital for reducing poverty. However, two-thirds of the world's 876 million illiterates are women, and three-fifths of the 115 million children out of school are girls (UNESCO, 2008). If women and girls are equally educated as are the men and boys, they will have better opportunities to get higher wages and to participate in community life and in decision-making. These women and girls will then be more likely to send their children to school in the future. Also, women's participation in decision-making has been recognised as a critical aspect of good governance and crucial for long-term sustainable regional growth. In order to promote regional development, women who make up over half of the population in the world, cannot be ignored.

2. Objectives and activities

2.1 Research objectives

The research has two key objectives. The first aim is to implement the “Hyogo Framework for Action (HFA)”. The HFA reaffirmed that “A gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training”, and the needs to “Ensure equal access to appropriate training and educational opportunities for women and vulnerable constituencies; promote gender and cultural sensitivity training as integral components of education and training for disaster risk reduction”. The research will transform the strategic goals and priorities set out in HFA into action.

The second aim is to help the target countries' efforts to achieve MDGs. The most basic goals for human development are to be able to lead long and healthy lives, to be knowledgeable, to have access to the resources, to attain a decent standard of living and to be able to benefit from community participation. Gender equality, which refers to the equal rights, responsibilities and opportunities of women and men, is one of the key elements to achieve MDGs. Implementation of the project “Gender in Community Based Disaster Management” will promote gender perspectives in disaster preparedness and development planning at government level and at community level, empowering women through decision-making and planning as members of communities. Sustainability, which is one of the main MDG targets and a vital aspect for any development activities, is attainable only if interests, needs, and priorities of women and men are given equal consideration within society contexts.

Therefore, the research will be implemented in order to:

- (1) Evaluate the gender sensitivity of disaster management policies and statistical and social indicators in the target countries;
- (2) Raise the awareness of stakeholders including governments, academic institutions, NGOs and communities;
- (3) Disseminate effective and efficient educational materials through workshops and/or trainings, and policies of gender sensitivities in the target countries; and
- (4) Build the capacity of stakeholders in the target countries for the evaluation and development of gender sensitive

policies.

2.2 Activities

The research supports the existing community disaster management initiatives of vulnerable communities, in particular disaster-prone countries in Asia. Four countries; Bangladesh, Nepal, Sri Lanka, and Turkey have been selected for case studies, considering the diversity of Asian region, and frequency and types of disasters. The Research activities consist of three stages; 1) System evaluation to investigate gender sensitivity in current disaster management strategies and studies, 2) Raising awareness amongst disaster management stakeholders and community members 3) Development of action plans and production and distribution of educational materials.

At the start of field implementation of the project, UNCRD conducted preliminary research to identify risk perception and preparedness behaviours by gender to assess local needs, and to identify and pursue opportunities to analyse and integrate gender dimensions and strategies to empower women as well as men in disaster management. The primary data was collected by questionnaires, and focus group discussions in each targeted community, whilst secondary data was also collected through review of existed documents. The random sampling method was applied to select 200 (100 male/100 female) in each country with available data such as voting lists, housing maps, and census data. The questionnaire contained 26 questions, which divided into four parts, namely; Basic information, Disaster awareness, Disaster mitigation, and Disaster Preparedness. The data was acquired by closed-ended form, for instance, “have you experienced any disasters in your life?” Another form is priority based ranking, and indication of preferable roles by gender.

After the preliminary research, the data was collected and analysed to develop further activities in each targeted communities in consultation with stakeholders such as UN agencies, local governments, NGOs, and community leaders. A series of community participatory workshops and/or trainings has been organised in collaboration with stakeholders and counterparts in targeted countries.

3. Gender in Community Based Disaster Management in Nepal

Nepal, covering two thirds of the Himalaya mountain range, is a multi-lingual, multi-ethnic and multi-cultural country with an ancient history. People of over 100 ethnic groups and social castes live alongside each other in 75 municipal districts and five development regions.

Nepal faces a variety of disaster risks owing both to its natural characteristics and human induced factors. In general, Terai region, the southern border, is considered a flood prone and a high risk area while Kathmandu Valley and Jumla

Table 1: Loss of lives (1983-1998)

Year/Types	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	Total
Earthquake	-	-	-	-	-	721	-	-	-	2	-	-	-	3	-	-	726
Flood & Landslide	293	363	420	315	391	328	680	307	93	71	1336	49	203	258	83	273	5463
Fire	69	57	52	96	62	23	109	46	90	97	43	43	73	61	65	54	1040
Epidemics	217	521	915	1101	426	427	879	503	725	1128	100	626	520	494	951	840	10373
Windstorm & Thunderbolt	NA	NA	NA	NA	2	NA	28	57	63	20	45	47	34	75	49	23	443
Avalanche	-	-	-	-	-	14	20	-	-	-	-	-	43	4	12	-	93
Stampede	-	-	-	-	-	71	-	-	-	-	-	-	-	-	-	-	71
Total	579	941	1387	1512	881	1584	1716	913	971	1318	1524	765	873	895	1160	1190	18209

(Source Poudyal Chhetri M.B, No date)

are known to be vulnerable to earthquakes. The rest of the country is considered to be landslide prone (Table 1).

Nepal has experienced several major earthquakes in recent decades: The Bihar Earthquake in 1934 which measured 8.3 Richter scale killed 4,300 people, and destroyed 20% of all structures (Earthquake and Megacities Initiatives, 2005). Three earthquakes of similar size occurred in Kathmandu Valley in the 19th century: in 1810, 1833, and 1866. Earthquakes could cause significantly loss of human lives, physical damages, and economics. In 1988, there was an earthquake that caused the loss of 721 lives. Disaster prevention and management has been an intermittent problem, especially in light of the large population and high density of people and buildings in urban centres like in Kathmandu. These same risks pose an even greater and more lethal threat to Nepal as we are reminded that the country is indeed prone to earthquakes.

Table 2:
What is the most reliable source for you to obtain disaster related information? (Priority based Ranking)

Information Source	Male	Female
Family, Relatives	5	3
Neighbors, Community	2	1
Local administration	3	4
Police/Fire service & Civil Defense	6	5
NGOs/CBOs	4	7
Mass Media	1	2
Don't know	7	6

Thamshipaka, Bungamati, and Bhaktapur within the Kathmandu valley were selected as sampling communities for the survey. Regarding experiences of disasters, 87% of men and 74 % of women respondents replied that they have experienced disasters, with many stating their experiences of the earthquake in 1934 and other lesser tremors. However, the level of awareness was quite low: only 36% of men and 32% of women respondents stated that they are concerned about any potential disasters. The survey also showed different gender perspectives for obtaining reliable disaster related information. The men ranked mass media as the most reliable source, then neighbours and local people, and local administration, in respective order. Women responded that the most reliable source for obtaining disaster related information is their neighbours and local people, mass media, and family and relatives in respective order (Table 2). These findings reflected how female members tend to rely on their personal networks such as friendship and social support based on their closeness and

trust within the community. This finding is a key to utilise women's network for effective dissemination of disaster related information, knowledge and skills to other community members.

Table 3:
Are there mitigation measures you/your family have applied? (More than one replies possible)

Mitigation measures	Male	Female
Settled in officially permitted land	64	65
Ensured quality construction of family homes	58	52
Properly maintaining own home	72	60
Subscribed to disaster insurance (owners/tenants)	9	3
Properly placed/secured housing goods and furniture	38	56
Learned about disaster risks and risk reduction measures	67	47
Shared mitigation information with family and community	63	48
Others	3	7

In terms of mitigation measures, 56% of women respondents answered that she or her family have applied proper placement and securing of furniture, while only 38% of the men answered they have. On the other hand, 67% of men respondents answered that they have learned about disaster risks around and risk reduction measures, while 47% of the women stated they have had learning experience .(Table 3).

4. Participatory town watching exercises

Community Based Disaster Management is one of the key lessons from the Great Hanshin Awaji Earthquake of January

17, 1995, which claimed a total of 6,433 lives. In emergency situations, the first rescuers are the local people, and they are also the people who will be involved in recovery efforts until the very end. When talking about emergency response and recovery, the need for self-reliance, cooperation and community support seem to be the lessons learned from the Great Hanshin-Awaji Earthquake. Therefore, UNCRD disaster management planning Hyogo office encourages community participation and capacity building to make disaster resilient communities.

The UNCRD cooperated with community based organisations within the Kathmandu valley to organise awareness raising workshops. The workshop included town watching exercises and the drafting of community hazard maps to analyse community vulnerability and capacity in times of disasters. Town watching is a participatory technique used in community or neighborhood planning in order for residents to recognize problems as a group and put forward solutions together (Ogawa, 2005). The town watching exercise consists of three steps; 1) Field survey by the participants; 2) Development of hazard maps based on their assessments, and 3) Discussion about their problems, and measurements for the improvement.



Figure 1 Hazard map

The participants walked around the community with map, The participants filled in their observation into the map, Moreover, UNCRD and local governments agreed to install community awareness boards to disseminate key outcomes from the workshop including a hazard map and disaster awareness information provided by National Society for Earthquake Technology-Nepal (Fig.1). These awareness boards were installed in various public locations such as bus stops, local government offices, and health posts in the communities.

5. Disaster Management Training for Housewives

The findings of the preliminary research and interview with counterparts indicated that the project should not repeat the same activities with the same target groups. Therefore, the main target group was identified as the housewives, who have less or no chance of receiving disaster management training in their daily lives. Based on the result of the preliminary research, housewives have the strong commitment for proper placement/fixing of household goods and furniture. UNCRD and National Society for Earthquake Technology (NSET) thus developed a curriculum on Non-Structural Mitigation Strategy for housewives. At the same time, a one-day training-of-trainers session for community based light rescue and search was held for housewives to give basic skills to save themselves and their family members. These housewives were then expected to pass on their acquired skills and knowledge to other housewives through their social networks. Twenty female participants were selected for a four-day training from different areas within the Kathmandu valley. The training consisted of four parts; 1) Lectures on basic information on earthquake cause, effect and the existing earthquake risk in Nepal; 2) Education on earthquake preparedness and mitigation measurements; 3) Demonstration of non-structural risk reduction measures at household levels; and 4) Community level search and rescue training.

The following goals and objectives are pursued through the Disaster Management training:

- To understand the importance of disaster management for women,
- To be able to apply non-structural measures in their homes,
- To be able to support rescue and search in times of emergency,
- To be able to support other housewives to implement non-structural measures in their communities, and
- To plan further activities.

During the training, resource persons from NSET along with the trainees visited some of the participants' houses for household vulnerability assessments, and provided all participants with non-structural risk reduction tools such as brackets, elastic fasteners, straps, etc. and the participants learned how to use these tools. After the training, follow-up

evaluation meetings were held with the participants. A pre-structured questionnaire was used to analyse the participants' demographics and effectiveness of the training. Basically, all the participants and family members were satisfied with the training and its practicality. Nineteen participants reported that they applied non-structural measures in their homes within a week or two after the training by themselves (13 people) and/or by male members in the family (16 people). There was only one person who hired a professional to apply the measures. Most of them used all the tools that they received (Table 4).

Table 4: Which Non-Structural Measures did you apply in your house (more than one reply possible)?

Brackets	Refrigerator with elastic fasteners	Cupboard or shelf with strings	Prop stick between ceiling and shelf or drawer	Others (Clock with hook nail, etc)
18	16	15	13	5

Other responses from the evaluation indicated that 17 participants talked about the training with relatives and/or friends and 15 participants said that they have actually showed their non-structural measures in their homes to their relatives and/or friends. Furthermore, at least 14 participants answered that they confirmed that their relatives/friends had applied similar non-structural measures in their homes after observing the participants' installations. Final results indicated that 70% of the participants influenced other community members to apply non-structural measures within two weeks after the training.

A participant also stated that:

“My husband sometimes attended disaster mitigation trainings, but he has never shared with family what he has learned. But I talked and discussed with my husband, friends, and relatives about what I have learned, so my husband also recognised the importance of sharing information”.

Several women also requested to organize additional Training of Trainers for Disaster Management programme for housewives so that they will gain more confidence to disseminate basic information about disaster management and how to apply non-structural measures at the household level.

6. Conclusion

When a disaster occurs, the media tend to look for sensational images, for example a picture of a crying woman carrying a baby in front of debris. And in fact, women can be more vulnerable than men, especially due to their social status. These vulnerabilities do not only emerge in times of disasters, but exist in day-to-day lives. To reduce women's vulnerabilities, it is important to identify the root causes of such vulnerability, such as less power to access resources, less control over properties, less power for decision-making, and so on. The preliminary research, which was conducted by UNCRD, concluded acute needs of raising awareness and distribution of proper disaster management knowledge at the grassroots level, focusing on equal opportunities for women. Therefore, every activity conducted insured that equal opportunities of participation were available for both women and men to receive additional knowledge and skills.

The evaluation from the training programme for housewives in Nepal illustrated women's strong capacity for networking and communication to disseminate effective disaster related knowledge and simple measures for disaster risk reduction. Most of women encouraged their relatives and friends to apply non-structural measures and they recognized their capacity to be able to influence community members, encouraging the women to learn more. Women are not only passive victims as many of them might think, and are also the ones who take care of massive burdens in times of emergency unbeknownst. Such women's capacity and resilience should be more focused on and effectively utilised in daily life to build sustainable, disaster resilient communities.

Authors:**Yoko Saito**

Researcher of United Nations Centre for Regional Development (UNCRD) Disaster Management Planning Hyogo Office. Master of Disaster Management and Sustainable Development at Northumbria University, UK

Prior to joining UNCRD, worked for a Japanese NGO for three and half years. Managing disaster relief and rehabilitation projects in Iran, Afghanistan, and Sri Lanka.

Edward Yutaka Sumoto

Research Assistant for the Gender in CBDM project at the UNCRD Disaster Management Planning Hyogo Office. Has extensive experience in community based development and multicultural societies with prior job experience and study in sustainable development and renewable energy technology in the United States, Paris, New Zealand, and China.

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