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Role of Community in Disaster Managements

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Abstract

In the present scenario, our vulnerable population and communities have become increasingly vulnerable to disasters and this has been aggravated by the micro level issues of rapid environmental degradation, resource depletion and global warming/climate change as well as the macro-level issues of poverty, illiteracy and lack of safety nets, amongst others. Thus, when disasters strike a geographical location, they tend to disproportionately alter the social fabric leading to wide spread damage and losses of lives and resources. As the state counts up the human and economic losses, or administers relief, those who experience disasters are conceptualized as a homogenous group called 'victims', a category which overlooks differences in terms of gender, caste, class, age or physical and mental ability (Fordham, 1999). The disruptions, thus, defy all existing social differences and stratifications, affecting all and, in a unique way, unifying the communities across boundaries. Being the first to suffer, the affected community rises like a phoenix and also becomes first real time responder in any disaster situation ignoring the inherent differences and stratifications of the community. This 'community spirit' or the social capital is thus a crucial strength on which the community balances its existence in a disaster scenario. This research paper based on the Secondary data. In this research paper discuss need, components, case studies; issues and challenges in the Community-Based Disaster Management.

Keywords: response, recovery, rescue, assessment, mitigation, reduction and resources

1. Introduction

The term community has been used very loosely and has been given different interpretations by different people. Generally speaking, the term is used to refer to a racial community, or a religious community or a national community or a caste community or a linguistic community or a professional community or sometimes, to refer to the entire mankind in a restricted sense. It is often used to mean an association or group, and in a wider sense, it is used to refer to the entire humanity. Kingsley Davis defines community as "the smallest territorial group that can embrace all aspects of social life" while MacIver states that "Community is an area of social living marked by some degree of social coherence". Ogpurn and Nimkoff supports MacIver by describing community as "a group or collection of groups that inhabits a locality". Community is, therefore, a geographic area of social living having common centers of interests and

activities and marked by some degree of social coherence. It is an inclusive term for social relationships, associations and institutions. Within the range of the community the members may carry on their economic, religious, political, educational and other activities. Hence, community is the total organization of social life within limited space. For e.g., villages, town, tribe, district etc.

In context of disaster management, the term community refers to a group of people who share similar set of vulnerable conditions and are affected in almost the same fashion when hit by hazards and disasters. The term community-based disaster management refers to the process of mobilizing, involving and enabling the participation of the exposed community in the management of disaster covering all phases; from preparedness, mitigation to rescue, response, relief, rehabilitation and finally recovery. The community should be ready to accept the management of hazards as a way of life and prevent them from becoming disasters.

Table 1. The process of Community — based Disaster Management Aims

Sr. No.	The process of Community — based Disaster Management Aims
1.	The community should be made well aware of the risk they are living with.
2.	They must possess the necessary know — how to deal with impending disasters.
3.	Communities must have a well laid down plan of action / list of activities, which the community decides to follow to prevent the repercussions of a disaster.
4.	Each one in the community is aware of his/her responsibilities in an emergency situation / disaster

Table 2. Need and Importance Community Based Disaster Management System

Sr. No.	The rationale for involving communities in disaster preparedness and mitigation activities is based on the following assumptions:
1.	Communities in disaster affected areas are the real sufferers and are the first responders as well.
2.	Communities in high risk areas have often developed their own coping mechanisms and strategies to reduce the impact of disaster. It is important to appreciate this local knowledge and resources, and to build on them in order to improve the capacity of the people to withstand the impact of disasters.
3.	Ownership of disaster reduction should not be stripped from local people who would be left even more powerless in case external intervention does not occur.
4.	Disaster reduction activities should be based on participatory approaches involving local communities as much as possible, considering them as proactive stakeholders and not passive targets for intervention.
5.	Involvement and participation of the communities will ensure a collective and coordinated action during emergencies.
6.	Building community leadership and a chain of trained community cadres through participatory approach can help harness the resilience and resourcefulness of the community to cope.
7.	Solution is sustainable if it comes from people themselves rather than thrusting upon them.
8.	Furthermore, it is not only the "big" disasters that destroy life and livelihoods. Accumulated losses from small floods, droughts and landslides can exceed the losses from big disasters and contribute significantly to increased vulnerability at the local level. These disasters attract little media attention and communities are often left on their own to cope with the destruction. This provides another reason to invest in Community-Based Disaster Preparedness.

2. Components

Community-Based Disaster Management is a process for building the capacity and resistance of the community to equip them with skills so that management of various hazards becomes a way of life for them. The various components of CBDM include: In case the unit of community is taken as a village, then development of Village Disaster Management Plan (VDMP) by the

community ensures ownership and reflects local conditions. The plan has to be prepared through a participatory approach on the basis of facilitation provided by external resource persons. The plan should detail out the process of hazard, vulnerability, risk and resource analysis along with listing out of contact details of important personnel involved in the management of disasters. The village disaster management plan is a document which details out the past hazard profile of a village and the present vulnerability status on the basis of which we can prepare to prevent future hazards from becoming disasters. The plan is essentially a preparedness tool which can be used during an emergency by the administration as well as the community to have an insight into the location of available men and material local resources in the village.

Table 3. Framework for Village level Disaster Management Plan

	Framework for Village level Disaster Management Plan		
Step No		Step No.	
1	Village Profile	6.	Response Plan
2.	Hazard Analysis	7.	Reconstruction and Rehabilitation Plan
3.	Vulnerability Assessment	8.	Mitigation Plan
4.	Resource Analysis	9.	Contact Details
5.	Risk Assessment		

(1) Village Profile: The village profile would include information like population, geographical area, temperature, rainfall, agricultural land, cropping pattern, education, economy, occupation, literacy rate, income, rivers, road, industries, hospitals, schools, temples, sex ratio, families below poverty line, livelihood pattern, drinking water sources, critical establishments and other critical infrastructure. The community may be asked to draw a map depicting the location of pucca and kutcha houses, livelihood of people, forests and trees, tanks and ponds, tube wells, public health services, drinking water facilities, telephone installations, road and railway infrastructure, post office, temples, schools, shelters etc.

(2) Hazard Analysis: It refers to prioritizing disasters based on its frequency and analysis of the estimated losses. This can be carried out by taking the help of elderly people of the village. The villagers analyze the losses that they had incurred during various disasters and learn the best practices carried out. This is an important activity as it forms the basis for preparedness and mitigation plans.

(3) Vulnerability Assessment: The process would involve asking the community two major questions namely;

1) Who is vulnerable?

2) What is vulnerable?

The community would be asked to identify the more vulnerable population, identify the location of women (pregnant, lactating, widows, single), children, elderly, physically challenged, mentally challenged, those dependent on life support systems and medicines, poor people living by the sea or kutcha houses, livestock and cattle etc. The community would also be asked to identify the vulnerable infrastructure like kutcha houses, low lying areas, areas near the water bodies such as the sea and river and direction of wind, livelihood assets such as boats and nets, documents, weak structures, drinking water resources, communication lines, roads, telephone lines etc.

(4) Resource Analysis: Resource analysis focuses on identifying locally available assets and resources that can be utilized for building the capacities of the community during and after disasters. The local community has a lot of inbuilt strength and capacity for handling the disasters. It is important to capture the capacity and strength of the community in resource analysis. Apart from infrastructure and funds, it could be individuals with specific skills, local institutions and people's knowledge as all these have the capacity to create awareness and bring about changes in the community. Resource analysis is therefore not limited to a map depicting the available resources but also plotting of the distribution, access and its use by taking into consideration prevailing sensitiveness within the village.

(5) Risk Assessment: On the basis of hazard, vulnerability and resource analysis, the

community is asked to determine and rank the hazards posing the highest as well as the lowest risk. The community also explores the reasons why a particular hazard poses the highest risk on the basis of the vulnerability and resource analysis.

(6) Response Plan: The onset of an emergency creates the need for time sensitive actions to save life and property, reduce hardships and suffering, and restore essential life support and community systems. Effective response planning requires realistic identification of likely response functions, assignment of specific tasks to individual response teams and agencies, identification of equipment, supplies and personnel required by the response agencies for performing the assigned tasks. A response plan essentially outlines the strategy and resources needed for search and rescue, evacuation, etc.

(7) Reconstruction and Recovery Plan: This aspect of the plan should focus on the restoration of normalcy to the lives and livelihoods of the affected population. The reconstruction of infrastructure should follow the principle of "build back better". Short-term recovery aims at restoration of vital life support systems to minimum operating standards, while long term rehabilitation continues till complete redevelopment of the area takes place.

(8) Mitigation Plan: The plan should focus on reducing the impacts of disasters on the communities through damage prevention. The main focus may be given to disaster mitigation owing to its importance in reducing the losses. The mitigation plans should be specific for different kinds of hazards identified in the HRVC analysis section. Mitigation plans should deal with both aspects: structural and non-structural. Identification of various departments including Panchayat Raj Institutions for implementing the mitigation strategies is important. Community mitigation measures should be identified and implementation modalities formulated. The mitigation plan should also include a section on preparedness planning.

(9) Contact Details: At the end of the plan contact details of personnel who are involved in the management of the disaster should be listed out like of village panchayat officials, village development officer, village task force, emergency resource owners, swimmers, members of the disaster management committees, members of various disaster management teams, local NGO's etc.

3. Disaster Management Committees and Teams

Disaster Management Committees and Teams have to be formed at the village level to facilitate the process of Community-Based Disaster Preparedness. The disaster management committees can plan the process of disaster management in the village while teams may be constituted to carry out important tasks like issuance of warning, evacuation and response, first aid, damage assessment, water and sanitation, carcass disposal, shelter management, psycho-social counseling, relief management and rehabilitation. The members of the committee may include BDO or his representative, Engineer, Member Panchayti Raj institution, Member from a facilitating institute or NGO, Gram Mukhiya or Village head, Mahila mandal and women's representative, Youth representatives like NYKS, NCC, NSS, Self-help group, School committee member and Village members. Motivated group of 5-7 volunteers in the village can come together and form Disaster Management Teams (DMTs). There are about ten varied DMTs working for specific areas that need to be catered to in pre-during and post disaster scenario. The DMT's will have certain Standard Operating procedures in the three phases of disasters.

3.1 Mock Drills

Mock Drills have to be conducted at regular intervals on the basis of plan prepared by the community. The mock drills will be a form of rehearsal in which the response of the community and the efficacy of the administration will be tested. The mock drill will also test the applicability of the village disaster management plan.

3.2 Awareness

Awareness has to be generated amongst the community through various mediums like televisions, radio and print media. These campaigns are carried out through rallies, street plays, competitions in schools, distribution of IEC materials, wall paintings on do's and don'ts for various hazards. Meetings with key persons of a village such as the village head, health worker, school teachers, elected representatives and members of the youth clubs and women also motivate the villagers to carry forward these plans for a safer living.

3.3 Training

Training is an integral component of CBDM. The important stakeholders like PRIs, Village volunteers, Disaster Management Committees, Disaster Management Teams have to be trained so that they can lead the process of disaster management in their community and make it as a way of their life.

3.4 Community Contingency Fund

Community Contingency Fund is a vital component of CBDM. Availability of resources for various activities to be carried at different phases of the cycle is very crucial. Even though initial resources may be provided by an external agency, it is mandatory that the community participates in resource generation and funding of the entire Community-Based Disaster Preparedness exercise. This is the greatest indicator of involvement and thereby ownership. Participation can take two forms, both monetary cash and donations and non-monetary i.e., goods, labour, usage of community goods such as plantations. To allow for the maintenance of the structures created and to allow the community to keep itself up to date in Community-Based Disaster Preparedness by the way of drills, a Community Contingency Fund (CCF) needs to be set up. The fund should ideally be generated by the contribution from the community itself. Each household in the village can also be motivated to contribute resources which could be in the form of funds and/or food grains, which becomes the grain bank for the village.

Table 4. International and National Case Studies

International Case Study:	**Case Study 1:** The Great Hanshin Awaji Earthquake. The Great Hanshin Awaji Earthquake occurred on 17th January, 1995 at 5:46 a.m. The magnitude of the earthquake was 7.3 on Richter scale. The devastating earthquake killed about 6,434 people. Among some 35,000 people who suffered difficulties in evacuating themselves, 77 percent were rescued by their neighbours, 19 percent by the rescue workers and 4 percent by others. The case study highlighted the need to train the community in search and rescue techniques so that many more lives can be saved at the time of disasters.
National Case Studies:	**Case Study 2:** Latur Earthquake. The Latur earthquake which had its epicenter near Killari in Latur district occurred on 30 September, 1993. The earthquake measuring 6.4 on Richter scale killed nearly 8,000 and injured about 14,000 razing 52 villages to ground. After the earthquake, the government built houses for rehabilitating the community. They built typical "suburban house" which were alien and unsuitable for the rural lifestyle. The houses had lesser space to accommodate grain storage bins and traditional machines of the weavers. There was no place for the wood-fire smoke to escape, making the interior black. The houses were located very far away from the fields. Moreover, the social life of the community was also disturbed as people close to one another were relocated at different parts. The community did not accept these houses. They discarded them as they were not involved in planning of these houses. The government learnt its lesson and later involved the community in planning and building houses. The houses were finally accepted by the affected community as the new houses were sensitive to the rural lifestyle. The Latur earthquake highlighted the need to involve the community in rehabilitation process. Lack of their involvement can lead to the failure of rehabilitation and reconstruction projects in a post disaster scenario.

	Case Study 3: Khanna Railway Accident. A railway accident occurred at Khanna near Ludhiana in Punjab on 26th Nov, 1998 at 3:15 am when the Sealdah mail from the other side rammed into the derailed killing 200 people died and injuring another 300. The local community rose to the occasion and responded to this exigency in the wee hours of the cold morning. The local gurudwara used the mikes to awaken the people of the village asked them to help. The villagers lined up their tractors, started the engines and switched on the headlights to facilitate the rescue operations. Some of them also burnt bundles of paddy straw to warm the atmosphere and save the injured people from biting cold. The local Gurudwara turned into a medical camp and food cooked in langar was served to them while the help from administration reached by 6 am in the morning. The case study highlights the vital role of community in disaster response.
	Case Study 4: Drought in Bhilwara. In drought prone Bhilwara district of Rajasthan, the community started a Community Pasture Development Programme for growing fodder for the livestock on the Community Pasture land. The community pasture land was cordoned off by making trench cum mounds followed by a live hedge, using a popular fence plant locally known as Thor (Euphorbia). Seeds of Dhaman grass were sown after tilling the land by a tractor top ensures groundcover. The community members arranged seed collection, and decided that all the families in the village could cut the grass and deposit 50% with the committee, which was later, sold to the needy members at a low cost. Apart from the sale of grass and fodder seeds the community members also decided amongst themselves to permit the members to cut thin branches of the trees for fodder and fuel wood in autumn by paying Rs.10 per tree. The average income generated from the community pastures was between Rs.2500-4500 per hectare, out of which 80-85 % was contributed by the sale of the grass and the rest by the sale of seeds, fine on stray cattle etc. This case study highlights the role of community is disaster mitigation and preparedness.

Table 5. Issues and Challenges

Some of the issues and challenges faced in the process are as follows:	
Sr. No.	
1.	NGOs try a variety of means to build community capacity in preparedness, mitigation, and response, without any tested and accepted models
2.	The results of these efforts are generally neither been well monitored nor the impact well measured. Minimal interagency learning takes place.
3.	There is an immediate need to standardize practices, with local government, local NGOs, and communities affected by disasters
4.	There is an absence of generally accepted standards for community participation in emergencies.
5.	It is often difficult to sustain the motivation and preparedness level of the communities, in a situation where the larger sections of civil society, government, media and general public

	remain immune to the need for internalizing the culture of disaster prevention and preparedness.
6.	Another challenge lies in the establishment, consolidation and empowerment of similar structures at provincial, district and local levels. Assisting their establishment, capacity and growth must become a focus of external support interventions.
7.	Various organizations in the country are carrying out CBDP programmes in isolation and with a project mode. This creates the risk of duplication of efforts and the community initiative ceases as soon as the project ends.
8.	The process of institutionalizing the training of DMT's is not focused upon or looked into. Consequently, many task forces become defunct after the project closes.
9.	Some of the other challenges include linking the macro level initiatives with micro level initiatives and mainstreaming it with various development projects, supporting the training activities with adequate IEC material, maintaining the flexibility of the components to accommodate local requirements, involvement of the more vulnerable groups, integration of the local resources with the components of the programme and dearth of trained experts who are meant to interface with and support local communities. The above mentioned issues and challenges need to be met to make the process of CBDM effective and sustainable; otherwise such projects will just be used as rhetoric by governmental and nongovernmental agencies resulting in the wastage of vital human as well as material resources.

4. Conclusion

Community is generally the first responder to any kind of disaster. The process of Community-Based Disaster Management aims at reducing the vulnerabilities of the population and equipping the populace with necessary skill and knowledge to accept hazards as a way of life and prevent them from becoming disasters. Numerous case studies from the international as well as national arena have established the rationale behind the involvement of the communities in the management of disasters. The main components of this process are development of a disaster management plan, constitution and operationalization of Disaster Management Committees (DMC's) and Disaster Management Teams (DMT's), conducting mock drills, generating awareness, training of the community and generation of a Community Contingency Fund. The process of CBDM has to be linked with various developmental schemes to ensure a sustainability of CBDM projects. The design of development projects and the process of development should take the aspect of disaster reduction and mitigation within its purview; otherwise, the developmental process will be unsustainable and get washed away as soon as a hazard will strike the area. The issues and challenges of standardization of practices, institutionalization of the process, sustainability of the motivation and preparedness level of the communities, generation of IEC material and integration of the local resources with the components of the programme are some of the challenges that have to be dealt with to ensure that the process of Community Based Disaster Management does not become a one off project based activity but rather a continuous process of development.

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