
UNIT 13 COMMUNITY BASED DISASTER MANAGEMENT*

Structure

- 13.0 Objectives
- 13.1 Introduction
- 13.2 Community Based Disaster Management (CBDM): Key Aspects
 - 13.2.1 Community and Community Based Organisations
 - 13.2.2 Definitions of CBDM
 - 13.2.3 Principles of CBDM
 - 13.2.4 Difference between Traditional and CBDM Approach
- 13.3 Community Based Risk Assessment
 - 13.3.1 Hazard Assessment
 - 13.3.2 Vulnerability Assessment
 - 13.3.3 Capacity Assessment
 - 13.3.4 Tools for Community Based Disaster Risk Assessment
- 13.4 Community Based Disaster Management: Institutional Framework
- 13.5 Community Based Disaster Management Plan
- 13.6 Conclusion
- 13.7 Glossary
- 13.8 References
- 13.9 Answers to Check Your Progress Exercises

13.0 OBJECTIVES

After reading this Unit, you should be able to:

- Explain the concept of Community Based Disaster Management (CBDM);
- Discuss the issues related to Community Based Disaster Risk Assessment;
- Differentiate between the traditional approach and the CBDM approach;
- Describe the institutional framework of CBDM; and
- Discuss CBDM plans that are to be addressed in the pre, during and post disaster phases.

13.1 INTRODUCTION

Community Based Disaster Management (CBDM) is the bottom-up approach in dealing with a disaster situation. In the initial years, top down approach was resorted to, in dealing with a disaster situation, which mostly attempted 'command' and 'control' measures and neglected the participation of affected population both in policy making and implementation. Such approach made the disaster response

* Contributed by Dr. A. Senthamizh Kanal, Consultant, Faculty of Public Administration, SOSS, IGNOU, New Delhi.

and rehabilitation measures ineffective and unsustainable. However, in the last few decades, there has been the adoption of bottom-up approach, where a person at the ground level, that is, the community is regarded as the key player. Any effort that involves the community can help in achieving sustainability, particularly in disaster risk reduction activities. The concept of Community Based Disaster Management (CBDM) brings together the community and involves them in the various phases of disaster risk reduction activities, viz., prevention, preparedness, mitigation, response, recovery, rehabilitation and reconstruction. It creates opportunities for the community to appraise local conditions and situation through their past experiences. In this approach, local communities are part of making plans, arriving at decisions and implementing the same. It can thus be stated that the sustainability of any risk reduction programme completely depends upon the community involvement and their active participation.

In this Unit, you will be introduced to the concept of Community Based Disaster Management (CBDM) and community based risk assessment (CBRA), which covers aspects such as hazard, vulnerability, risk and capacity assessment. It also highlights the principles of CBDM and enumerates the differences between the traditional approach and the CBDM approach. The Unit also covers the institutional framework related to CBDM besides emphasising on the planning measures that are to be considered in the pre, during and post-disaster phase.

13.2 COMMUNITY BASED DISASTER MANAGEMENT (CBDM): KEY ASPECTS

13.2.1 Community and Community Based Organisations

As per Cambridge dictionary, a community is “the people living in one particular area or people who are considered as a unit because of their common interests, social groups or nationality”. They are the group of individuals and households residing in a similar location. In the context of disaster risk reduction (DRR), community is a set of people who are exposed to the same hazard. Communities can identify their own vulnerability and they also make best decisions for their well-being. However, as observed by the United Nations International Strategy for Disaster Reduction (UNISDR), “in every community, knowledge, professional abilities, and experience fashioned from adversity can be found, but seldom are these resources called upon or fully utilised”. Thus, community has a major role to play in managing the disasters and its role in disaster management becomes pertinent because of the following reasons:

- The community comprising the people at the local level are the direct sufferers of a disaster, irrespective of the fact that whether a disaster is severe or mild; when a disaster strikes, they are the main stakeholders and they have more to lose in the aftermath of a disaster;
- Community members are the first set of people to become vulnerable;
- The community has a lot to lose if they do not address their own vulnerability; At the same time, they gain the most by reducing the impact of disasters on their community.

In handling disasters, the community is thus put at the forefront, which has led to the emergence of community based disaster management. Community can handle a disaster situation in a better way, if they are organised as a group and they have

**Disaster Management:
Cross-cutting Issues**

various advantages, when their efforts are mobilised together. Organised effort of a community is more beneficial because of various reasons, which include:

- Immense volunteering capacity of a community;
- Innate ability of the community to understand local needs;
- Increased awareness on the most vulnerable sections of their community;
- Built-in credibility with the local members;
- Access to remote social groups that generally do not have interaction with government officials;
- Power of persuasion and community influence; and
- Ability to make decision outside the government processes.

As a result of all these reasons, community based organisations are effective instruments to handle disaster situation. To put it in simple terms, Community Based Organisations (CBOs) are organisations that are created by the people within the local community which operates, monitors, and controls their own activities. These organisations work without the interference of the government and private institutions. It includes community members, elected *Panchayati Raj* representatives, village administrative/development officer, women and youth collectives, *Gram Sewak*, *Anganwadi* workers and self-help group members. As discussed earlier, they have tremendous potential, not only in handling a disaster situation, but also in making disaster risk assessment, which is discussed later in this Unit.

13.2.2 Definitions of CBDM

Asian Disaster Preparedness Centre (2004) defines Community Based Disaster Management (CBDM), as an approach that “seeks to actively engage at-risk communities in the identification, analysis, implementation, monitoring and evacuation of disaster risks in order to reduce their vulnerabilities and enhance their capacities”. In the Indian context, the National Disaster Management Authority (NDMA) (2014) states “where communities are equipped and prepared, disasters clearly have much lesser impact, especially in terms of the loss of lives”. Further it regards CBDM as an approach to “build the capacity of communities to assess their vulnerability to both human induced and natural hazards and develop strategies and resources necessary to prevent and/or mitigate the impact of identified hazards as well as respond, rehabilitate, and reconstruct following its onset”. The International Institute for Disaster Risk Management (IIDRM) views CBDM as “an approach that involves direct participation of the people most likely to be exposed to hazards, in planning, decision-making, and operational activities at all levels of disaster management responsibility”.

The above definitions highlight the importance of communities in planning and implementation of disaster risk management. Apparently the definitions also clarify that it is important to enhance community capabilities, which will help in reducing the vulnerabilities at grass root level. The knowledge, skills and attitude towards a disaster situation at the local level will help the communities during disasters and also increase the preparedness level.

13.2.3 Principles of CBDM

The following are the basic principles of CBDM:

- *Active participation*: Active participation of the community is very important

for reducing disaster risk. When disaster risk reduction measures are community-centric, the local champions take ownership in planning, implementation and management of disaster reduction activities.

- *Use of local resources and capacities:* Interventions begin from locally available and accessible resources, capacities and networks/partnerships. Utilisation of all these aspects at the local level is an important principle to deal with a disaster.
- *Own choice and decision:* Community should consider their choices and decisions while engaging in disaster risk reduction.
- *Capacitating community:* DRR programmes should be community specific and focus on increasing the capacity of the local level people.
- *Attention to vulnerable groups:* Special focus should be given to vulnerable groups, so that their wellness and needs are taken care of in the pre, during and post-disaster phases.

13.2.4 Difference between Traditional and CBDM Approach

With the introduction of CBDM practices, disaster management activities have become effective, as the attention is towards people and addressing their vulnerabilities. The traditional approach was mostly insensitive to local needs and it did not help much in reducing disaster impacts. The following are the major differences between traditional and CBDM approach.

S.No	Traditional Approach	CBDM Approach
1	It's a victim or receiver oriented approach	It is an active participatory approach
2.	People are considered as helpless victims	People are active participants in rebuilding their lives and livelihoods.
3.	People are recipient and totally dependent on external aid	People's capacities are built and developed through their active participation. It maintains the sustainability of the development programmes.
4.	Need and damage assessment done by external people/experts	Need and damage assessment done with community participation. It provides the realistic picture of the assessment.
5.	It focuses on technical solution and material aid	It focuses on assisting communities to address their vulnerabilities so that the short-term aid get replaced by long-term development.
6.	Focus on individual household	Focuses on strengthening community and their structure. It enhances the sustainability of the DRR measures and also integrates the society and its resources
7.	Disaster management is considered as a relief provided to the community	Disaster management is considered as community awareness and sensitisation, community participation and mainstreaming DRR into socio-economic, political and development initiatives.

Source: ADPC, 2014.

13.3 COMMUNITY BASED DISASTER RISK ASSESSMENT (CBDRA)

Community Based Disaster Risk Assessment (CBDRA) is a systematic way to identify and assess the hazard, vulnerability and capacity at the local level. According to ADPC, “community risk assessment is a participatory process of determining the nature, scope and magnitude of negative effects (due to hazards), which can be anticipated during a specified period and be reduced by employing local capacities”. The nature of a disaster is unique and distinct and each disaster makes different impact on the society. For instance, earthquakes damage lives, houses and critical infrastructure; whereas cyclone affects houses, livelihood and other related matters. Hence, assessment of the hazard, risk, vulnerability and capacity (HRVC) of the village with the help of community will increase the coping capacity of the local people and also augment the local resources. In the following section, we will discuss about the key issues of community based disaster risk assessment.

13.3.1 Hazard Assessment

Hazard assessment makes an evaluation of the nature of the hazard at the community level. This analysis is done by the community members to identify potential risks and hazards in their villages and identify the appropriate measures to bring resilience to the society. In general, this kind of assessment tries to find answers to the following:

- What is the nature and intensity of hazards present in a specific area?
- What are the elements at risk?
- What can be the possible extent of loss caused by these hazards?
- What is the duration of these hazards and how can they interact with each other to pose compound threat?

The major tools of the hazard assessment are village hazard maps, historical profile of the place and the seasonal calendar. In this exercise, the communities assess the existing hazards, its nature and frequency in their area and identify the most vulnerable place or group in that village.

13.3.2 Vulnerability Assessment

Most of the hazards turn disastrous because of the vulnerability of the community and the unpreparedness of the community. Vulnerability assessment measures the extent to which people are or infrastructure is likely to get affected from hazards. In other words, it is “the analysis of the vulnerability of various sectors that are exposed to the natural hazards identified in the hazard analysis exercises. The sectors include social, livelihood, economic, physical assets, agriculture, political and administration” (DMTP, 1994). It is a process to determine what elements are at risk and analyse the factors behind why these elements are at risk? This assessment is not at all possible without the active participation of the people because they are the ones, who know their field very well. The following are the two stage consequence of vulnerability assessment to hazards (IGNOU, MPA 007):

- 1) Making inventory of what element is at risk:

Once the hazard is identified in the particular village it is necessary to find out the

possibility of damage that can be caused by the hazard. The data on the following elements are required during the vulnerability assessment.

- Population: Age, gender and health
- Livelihoods: Types and locations
- Local economy
- Agriculture and fishery
- Buildings and infrastructure
- Cultural assets (Library, museums and heritage buildings)
- Local institutions.

2) Assessing the vulnerability of elements at risk:

Once the required information has been collected, it is necessary to identify how the elements will be affected by hazards to make accurate assessments of the risk. The analysis of the socio-vulnerability factors will provide the coping mechanism to the community members.

13.3.3 Capacity Assessment

As per UNISDR, “Capacity is the combination of all the strengths and resources available within a community, society or organisation that can reduce the level of risk or the effects of a disaster”. ADPC states that “Capacity assessment is the process to determine what people do in times of crisis to reduce the damaging effects of the hazard, and to secure the sustainability of their livelihood by: understanding people’s previous experiences with hazards that enables them to develop coping strategies; analysing which resources are available and used by the community to reduce risk; and assessing who has access to these resources and who control them”. The Capacity can be classified into the following categories: economic capacity, physical capacity, social capacity and natural and climatic resources.

13.3.4 Tools for Community Based Disaster Risk Assessment

Participatory Risk Assessment tools are used to collect information from the community about the existing risk status of the village. For such an assessment, it is not necessary to have a particular, technical expertise, but what is needed is only the local knowledge of the community. This approach helps to conduct the base line survey of the village, which would help in resolving the conflict resolution through more interaction. The following are the Participatory Risk Assessment (PRA) Tools:

- Historical profiling
- Risk mapping
- Seasonal calendar
- Transect walk
- Institutional analysis
- Gender mapping
- Livelihood and existing coping strategies
- Disaster ranking

Check Your Progress 1

Note: i) Use the space given below for your answers.

ii) Check your answers with those given at the end of the Unit.

1) Define Community and Community Based Organisations.

.....
.....
.....
.....

2) List the major principles of Community Based Disaster Management.

.....
.....
.....
.....

3) Discuss Community Based Disaster Risk Assessment.

.....
.....
.....
.....

4) Bring out the difference between Traditional and CBDM Approaches.

.....
.....
.....
.....

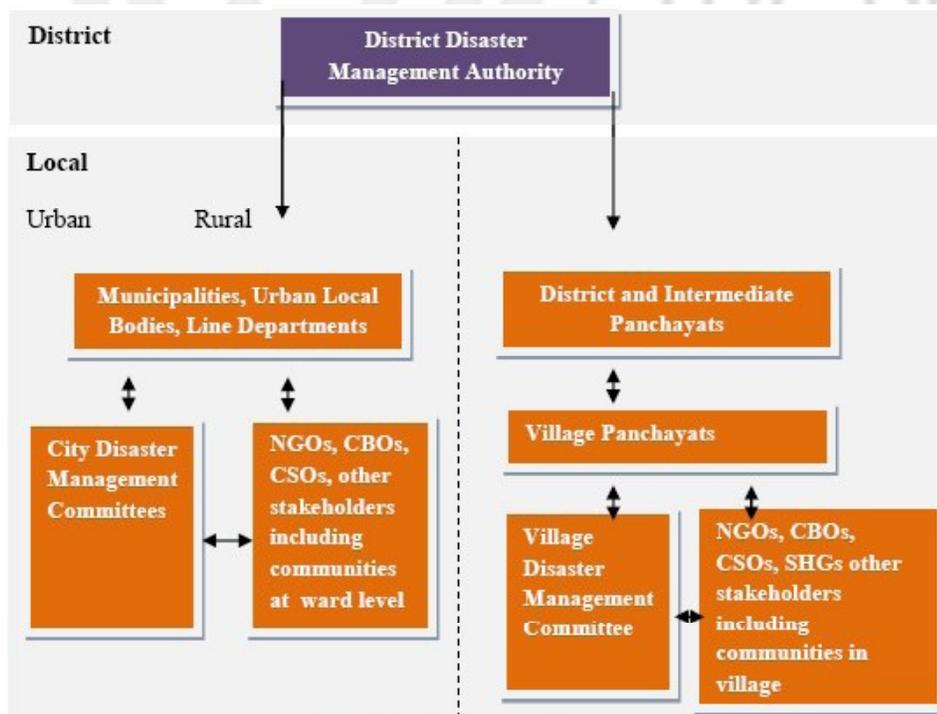
**13.4 COMMUNITY BASED DISASTER
MANAGEMENT: INSTITUTIONAL
FRAMEWORK**

Community involvement in disaster management has been stressed both by the Disaster Management Act and the National Disaster Management Authority, which state that only when community initiatives are integrated with the local institutions, state policies and practices, the CBDM measures can be effectively implemented. The NDMA in 2014 came up with the CBDM guidelines discussing the CBDM institutional framework. It observes that the institutional framework of CBDM should be grounded on the principles of participation, social inclusion, equity and decentralised governance. In general, CBDM institutional framework is important for various reasons:

- Firstly, the CBDM institutional framework helps in having clarity on the nature and forms of institutions that exist at the ground level;
- Secondly, it creates linkage between community and government institutions, which helps in better coordination and action;
- Thirdly, the framework would help the government and civil society to facilitate the formation and functioning of community organisations; and
- Finally, the framework serves as a mechanism to monitor and evaluate the functioning of community based institutions and processes.

The NDMA's CBDM guidelines also enumerated the principles of community based disaster management institutional framework, which are as follows:

- The CBDM institutional framework must consider the local communities as active actors, rather than passive victims;
- Community should be considered the centre of all disaster management activities, right from planning, disaster response, disaster mitigation, etc.;
- CBDM institutional framework should be sensitive to the needs of different communities viz., people belonging to different social groups, disabled, women, elderly and other marginalised, etc., as they are at greater risk;
- The CBDM institutional framework should analyse the local risk patterns and trends, as disaster is not an isolated event, but stems from the concerns related to development, environment management and human behaviour;
- The CBDM institutional framework has to work in coordination with external supportive and facilitative institutions without losing its autonomy and thus shall function on the spirit of voluntarism and collaboration.



Source: NDMA, 2014.

The CBDM institutional framework emphasises decentralised planning and management at the district, sub-district and village level and insists that there should be both horizontal and vertical links at all levels. Thus, disaster risk reduction strategies and issues could be mainstreamed in the development planning process, if there are proper linkages with all institutions at all levels, as depicted in the diagram, both at the rural and urban level.

13.5 COMMUNITY BASED DISASTER MANAGEMENT PLAN

It is important to plan well ahead for managing disasters, as it is helpful to prevent major losses in terms of life, livelihood, property, etc. Further, CBDM plans are also helpful as it contains details on the vulnerabilities, potential hazards that can hit a place, mechanism that are in place to deal with a disaster immediately. The following section discusses about the community based disaster management plan, which can be made in various phases of a disaster, viz., pre, during and post-disaster.

CBDM Plan in Pre-disaster Phase

The planning process in the pre-disaster phase can cover the following:

- *Community orientation:* The plan can have measures towards community orientation, wherein the community can be briefed on the nature and effect of a disaster and their vulnerabilities;
- *Stock-taking of resources:* Stock-taking of the resources within their village or locality is important in the pre-disaster phase. Such stock-taking of the condition of schools, health centres, cyclone shelters, communication facilities, conditions of roads and infrastructure, etc., can help the community to take quick decisions when a disaster actually strikes;
- *Risk and vulnerability assessment:* Assessing the risks and vulnerabilities of the community is another important aspect of planning in the pre-disaster phase. It is important to take stock of the elements at risk, viz., area, physical structures, economic assets, etc. and people at risk, viz., children, women, disabled, elderly, etc., so that preparedness measures are appropriately planned;
- *Formulation of preparedness plan:* Formulating preparedness plan at the community level is very crucial in the pre-disaster phase. This takes into cognisance the community needs; clarifies measures to be taken by the community before, during and after the disaster strikes; gives idea of resources available at various places; specifies the roles and responsibilities of concerned officials, departments, *Panchayati Raj* Institutions, NGOs, CBOs, etc. A properly prepared plan facilitates the community to effectively execute the plan.

During Disaster

Following measures are to be taken into consideration, while planning for this phase of disaster management:

- *Organising search, rescue and evacuation activities:* This includes identifying the disaster victims, bringing them to safer places, providing first-aid, distributing relief, adhering to evacuation plan, etc.
- *Providing shelter to people and livestock:* While the place of shelter for

people and livestock is pre-planned, plan should be made for other arrangements to be taken care of in the shelter, which include water supply, sanitation, kitchens, fodder for animals, medical services, first-aid, etc.

- *Debris clearance and dead body identification:* Clearing of debris from collapsed buildings, bridges, trees, other structures, etc., and disposing of dead humans and livestock is a major concern in the ‘during disaster phase’, which has to be planned appropriately, if the spread of disease and further health and environmental impact is to be contained.
- *Damage assessment:* Assessing damages immediately on the occurrence of disaster facilitates quick emergency relief. This is to be done with reference to the number of households, population, livestock, area affected, etc.

Post-disaster Phase

The CBDM plan in the post-disaster phase covers the following:

- *Detailed damage assessment:* Undertaking a detailed damage assessment is very important in the post disaster phase, as this is helpful to know the magnitude of loss both in terms of lives and other damages like infrastructure, damage to crops and the estimated value.
- *Preparation of rehabilitation plan:* Drawing up a comprehensive economic rehabilitation plan is necessary, which can include measures for restoration of agricultural activity through necessary inputs, rehabilitation of artisans, marginal, small scale and business people, those pursuing other occupations, replacement of cattle, agricultural and other equipment, boats, fishing nets etc.
- *Social rehabilitation:* The post-disaster plan should ensure social rehabilitation through strengthening of existing health centres, schools, *anganwadis*, community centres, vocational training centres, psychological counselling to the affected to enable them get back to their normal routine.
- *Monitoring of CBDM:* It is important to build an appropriate monitoring and evaluation mechanism in community-based disaster management programme. This is needed to facilitate proper utilisation and implementation of resources.

Check Your Progress 2

Note: i) Use the space given below for your answers.

ii) Check your answers with those given at the end of the Unit.

1) Discuss the Institutional Framework of CBDM.

.....
.....
.....
.....

2) Write a short note on the Post-Disaster Phase of CBDM.

.....
.....

.....
.....
.....

13.6 CONCLUSION

In this Unit, we have covered an important topic, that is, community based disaster management. As discussed earlier, the role of the community is very vital especially in dealing with a disaster situation, as the community members are the first set of people, who would get affected when a disaster strikes and who is immediately available for help and whose help matters a lot in preventing huge loss of life and property. Understanding the importance of the critical role of the community, both at the national and international forum, CBDM has been highlighted as crucial measure to bring resilience in a community. The Unit also introduced the principles of CBDM, apart from highlighting the difference between the traditional and CBDM approach, where there was the shift from the top-down to the bottom up approach. Institutional framework and planning for CBDM was also covered in this Unit, which discussed the importance of integrating different stakeholders at the local level and the need to consider various disaster related aspects in the pre, during and post-disaster phase.

13.7 GLOSSARY

Disaster Risk

: The UN defines it as “the conceptual framework of elements considered with the possibilities to minimise vulnerabilities and disaster risks throughout a society, to avoid (prevention), or to limit (mitigation and preparedness) the adverse impact of hazards, within the broad context of sustainable development.

Participatory Rural Appraisal (PRA)

: PRA originally stood for Participatory Rural Appraisal, but its applications are in many other contexts besides rural and good practice is far more than just appraisal. It enables others to do their own appraisal, analysis, planning and action, to own the outcome and to share the knowledge. The target group could be local; rural or urban concerning people, women, men or old, or members of an organisation or group.

13.8 REFERENCES

Arnstein. (1969). A ladder of citizen participation. *Journal of the American Institute of Planner*. 35(4): 216–224.

Asian Disaster Preparedness Centre (ADPC). (2014). *Hand Book on Community Based Disaster Risk Management*. Bangkok, Thailand.

DMTP. (2004). *Vulnerability and Risk Assessment*. Retrieved from https://www.researchgate.net/publication/209803485_Vulnerability_and_Risk_Assessment

IGNOU. (2006). *Disaster Management, MPA-018*. New Delhi: Faculty of Public Administration, Indira Gandhi National Open University.

IGNOU. (2006). *Disaster Preparedness, MPA-004*. New Delhi: Faculty of Public Administration, Indira Gandhi National Open University.

IGNOU. (2006). *Rehabilitation, Reconstruction and Recovery, MPA-007*. New Delhi: Faculty of Public Administration, Indira Gandhi National Open University.

IGNOU. (2012). *Training Manual on Conceptual and Institutional Framework of Disaster Management*. New Delhi.

Kafle & Murshed. (2006). *Community-Based Disaster Risk Management for Local Authorities: Participant's Workbook*. Thailand: Asian Disaster Preparedness Center.

Maskrey, Andrew. (1989). *Disaster Mitigation: A Community-based Approach*. Oxford: Oxfam.

National Disaster Management Authority (NDMA). (2014). *National Disaster Management Guidelines on Community Based Disaster Management*. New Delhi.

Patterson, O., Weil, F. & Patel, K. (2010). The Role of Community in Disaster Response: Conceptual Models. *Population Research and Policy Review*. 29: 127-141.

Sahni, P., Dhameja, A. & Medury, U. (Eds.). (2001). *Disaster Mitigation: Experiences and Reflections*. New Delhi: Prentice Hall of India.

Shaw, R. (2014). Kobe earthquake: Turning point of community based risk reduction in Japan. In R. Shaw (Ed.), *Community Practices for Disaster Risk Reduction in Japan*. Tokyo: Springer.

Shaw, R. 2012. *Community-Based Disaster Risk Reduction*. West Yarhshire: Emerald Publishing.

United Nation International Strategy for Disaster Reduction (UNISDR). (2009). *Local governments and disaster risk reduction: Good practices and lessons learned*. Geneva: United Nations.

13.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

- 1) Your answer should include the following points:
 - Community comprises of the people at the local level and they are the first set of people to become vulnerable;
 - The community comprising of the people at the local level are the direct sufferers of a disaster, irrespective of the fact that whether a disaster is severe or mild. When a disaster strikes, they are the main stakeholders and they have more to lose in the aftermath of a disaster.
 - Community Based Organisations are organisations that are created by the people within the local community which operates, monitors and controls their own activities.

**Disaster Management:
Cross-cutting Issues**

- These organisations work without the interference of the government and private institutions. It includes community members, elected *Panchayati Raj* Representatives, village administrative/development officer, women and youth collectives, *gram sevak*, *anganwadi* workers and self help group members.
- 2) Your answer should include the following points:
- Active participation
 - Use of local resources and capacities
 - Own choice and decision
 - Capacitating community
 - Attention to vulnerable groups
- 3) Your answer should include the following points:
- Community Based Risk Assessment (CBRA) helps to collect the base line survey of the village, which would help in resolving the conflict resolution through more interaction.
 - Participatory Risk Assessment Tools: Historical Profiling ; Risk Mapping; Seasonal Calendar; Transect Walk; Institutional Analysis; Gender Mapping; Livelihood and existing coping strategies; and Disaster Ranking .
- 4) Your Answer should include the following points:
- Traditional approach was mostly insensitive to local needs and it did not help much in reducing disaster impacts.
 - CBDM approach focuses on assisting communities to address their vulnerabilities. So that the short term aid replaced by long term development.

Check Your Progress 2

- 1) Your answer should include the following:
- CBDM institutional framework helps in having clarity on the nature and forms of institutions that exist at the ground level.
 - Linkage of community with government institutions, which helps in better coordination and action.
 - It would help the government and civil society to facilitate the formation and functioning of community organisations; and
 - It serves as a mechanism to monitor and evaluate the functioning of community based institutions and processes.
 - NDMA's CBDM framework.
- 2) Your answer should include the following:
- Detailed Damage Assessment
 - Preparing Rehabilitation Plan
 - Social rehabilitation
 - Monitoring of CBDM.