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## UNIT 3 COMMUNITY BASED DISASTER MANAGEMENT

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### 3.0 LEARNING OUTCOME

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After studying this Unit, the learner should be able to:

- Explain the significance of community participation in disaster management, especially disaster planning and disaster response; and
- Describe the modalities for arranging for CBDM.

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### 3.1 INTRODUCTION

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The *World Disasters Report 2004* has 'Building Community Resilience' as its central theme. It has been realised in experiences with recent disasters that enabling communities to fight disasters is a much better policy choice than ad-hoc ameliorative schemes for tackling short-term vulnerabilities. As per the report, the experience with community based disaster preparedness has been extremely encouraging in the Philippines. Filipinos are prone to frequent typhoons, floods and droughts, which have impacted the livelihoods of small farmers and agricultural labourers and adversely affected the economy of the country. Typhoons bring high winds and heavy rainfall, which destroy crops, livestock and property, eroding soils and littering farmland with silt and stones.

The Red Cross encouraged community based disaster preparedness by encouraging people to prepare *local preparedness plans* and undertake mitigation measures like mangrove and tree planting, seawall and river dyke construction, clearing irrigation channels, sand-bagging sections of rivers, and building evacuation centres. Initiatives were planned with the participation of community members and local government units (LGUs). LGUs help meet the costs or technical requirements. However the shortcomings of the approach were soon evident. *It was realised that not sufficient to invest in preparedness.* It was realised

that shift towards vulnerability reduction with stress on livelihoods is inevitable for lasting impact on peoples' lives. It was necessary to provide for sustainable livelihoods which donor agencies were unwilling to commit for. For example, the donor to a PNRC project in Benguet province prematurely cut back support, after concluding that the project's income-generation elements were not sufficiently focused on disaster mitigation. However, local participants considered these initiatives valid because they addressed wider aspects of vulnerability.

Hence, quoting from the report, "the challenge for humanitarian organisations is to avoid imposing on communities a pre-conceived agenda of physical mitigation measures, to be completed within donor-driven timelines. Only a *careful analysis* of both the hazards and the social, political and economic *reasons underlying resilience and vulnerability* can provide the basis for framing the right interventions. Such an analysis will raise far more problems (and expectations) than any single organisation can solve. So humanitarian organisations must cooperate with other agents, from local to international levels, with expertise in different sectors (IRCRC, 2004)."

### **Vulnerability and Capacity Analysis (VCA)**

It has been realised through past experience that specialist vulnerability and risk assessments do not provide all needed information. It is necessary to supplement expert analysis, usually undertaken by economists and scientists, by a vulnerability and capacity Analysis (VCA) conducted at the community level, involving community members in analyses and articulation of their own problems. *Vulnerabilities*, that is, factors that create the proneness or predisposition or susceptibilities to risk in the community should be studied in relation (in opposition) to *Capacities* (resilience, strengths) to find clues to augment the capacities and offset the vulnerabilities of communities. Hence "assessment has to be a participatory process undertaken in phases, and involving on- the- spot collection of data, interpreting and analysing the same for information from various sources. It involves analysis of both scientific and empirical data."

Cross- categorisation to identify vulnerable communities besides simple categorisation of 'at risk' communities on the basis of gender, age, ethnicity, religion or caste has to be attempted. For example, women and children are vulnerable groups, cutting across caste and class categories in disaster situations. Hence disaster policy has to be sensitive to such differentiations especially in the matter of involving people in disaster policy and implementation of the same.

### **Rationale of Synergy**

The concept of good governance demands that government must not only be representative but also responsive in that people should have a substantive role to participate in decision-making and implementation. Cohen and Uphoff (1980) regarded participation as "generally devoting the involvement of a significant number of persons in situations or actions which enhance their well being". Paul (1987) defined participation as, "in the context of development, community participation refers to an active process whereby beneficiaries influence the direction and execution of development projects rather than merely receive a share of project benefits". Disaster risk reduction through participation addresses four important questions:

- 1) Who is participating?

- 2) How is participation assured?
- 3) At which stage is participation occurring? And
- 4) How is participation facilitated?

To grasp all dimensions of participation in sufficient measure, one has to understand the concept of community, wherefrom participation emerges.

### **Concept of Community**

A natural event becomes a disaster when it causes loss of lives and / or property. Since disasters affect people as *individuals*, and community as a *collective*, both are important to reduce the impacts of disasters. Community based disaster management, by its very definition, involves communities in identifying, assessing and acting jointly to reduce disaster risks. The impact of disasters is increasing in magnitude much beyond the management capacity of governments and traditional emergency responders. The usefulness of CBDM approach helps in reducing disaster impacts and calls for its greater recognition and institutionalisation within the disaster management framework.

“Community is defined as a feeling that members have of *belonging*, a feeling that members matter to one another and to the group and a *shared* faith that members’ needs will be met through their commitment to be together” (McMillan and Chavis, 1986). Many people define community in different ways; however, the aforesaid definition is preferred because it is inclusive. Thus community includes not only the people who live in a certain location, but also includes the local government, local business sector, local academic bodies and NGOs.

### **Concept of Participation**

There is considerable ambiguity about peoples’ participation in governance. What does it mean? How it is to be secured; in what manner; in which areas? According to Hickey and Mohan (2003), participation should not be understood as *imminent*, that is one off/ad hoc participation in some programmes but conceptualised in broader terms as part of the wider concept of citizenship which looks at participation as an *immanent* socio- historical process which runs as an undercurrent to all social, political and sociological processes. This calls for a review of the concept of citizenship itself. There is increasing talk of the limits of state action for mutual benefit; hence the imminence of responsible citizenship, which implies increasing *involvement* of people in governance related to matters as a matter of *right*. A balanced conception of rights and duties is desired, on the part of each stakeholder, citizen or otherwise, as an imperative for good governance. Accordingly, “Citizenship can be defined as that set of practices, which define a member as a competent member of a society, and which as a consequence shapes the flow of resources to persons and social groups” (Roberts 1992).

Hence, there is need for radical system change as per the theoretical formulation, which is referred as “critical modernism” by Giles and Mohan, where initiatives come more from citizens rather than as one- way traffic from official institutions. To that end, government has to work actively to promote such institutional mechanisms that make real such possibilities. People’ participation has to move a level up from *project* level to *policy* level which can lead to political empowerment of people, rather than ad- hoc involvement in some technical

studies. Example can be given of *participatory rural appraisals* (PRAs) being used currently in disaster mitigation and vulnerability studies, and *participatory poverty assessments, social analysis* which inform policy for poverty reduction, initiated and promoted by the World Bank, following criticism of aid linked to conditionalities and being unrelated to actual needs (Blackburn and Holand, 1998). Hence, participation is not an ancillary but an essential/central concern in good/democratic governance. Civil society needs institutionalisation. Towards the same, catalytic intervention on the part of the government to institutionalise social capital in the form of neighbourhood and resident welfare associations would be necessary for consistent and relevant input for public policy.

As rightly articulated in the World Disasters Report, 2004, sometimes outside intervention helps alleviate social tensions, since it acts as a catalyst in counter-effecting traditional/inherent negative social capital and promoting positive social capital as organising group meetings, catalysing interface between members of different communities, especially those with differences.

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### 3.2 CONCEPT OF COMMUNITY BASED DISASTER MANAGEMENT (CBDM)

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The term "Community-Based Disaster Management" received attention in the development field in the 1980's, although community based disaster initiatives were already on-going in different parts of the world in formal or informal ways.

Though CBDM has been a popular term in the last several years, in very few cases it has actually been incorporated into government policy. It has been a common notion that CBDM is the responsibility of grass root organisations and/or NGOs. There are two major aspects in this regard: *first*, the best practices of CBDM initiatives remain local initiatives and are not properly disseminated. It was observed that even though there have been good examples of CBDM in specific locations within a society, those lessons are not transferred to other parts of the country, neither do they reach the adjacent countries of the region. *Second*, due to lack of recognition of CBDM initiatives at the national level, there are often limited resources devoted to these activities. Thus, in most areas, CBDM is considered in isolation from national disaster management activities. It is also not included in the national development policies. Therefore, there is an increasing need to understand the basis of CBDM, and try to formulate a framework for incorporating CBDM into national policy issues with special focus on sustainability.

The Great Hanshin Awaji Earthquake of 1995 hit the city of Kobe and other parts of Hyogo prefecture in Japan causing serious loss of life and property. Immediately after the earthquake, the neighbours and relatives rescued many people from the debris. Statistics show that 85 percent of the people were either self-evacuated or were rescued by neighbours. This indicates the importance of community and neighbourhood immediately after such an event.

The above case study from Japan indicates the importance of social capital inhering in communities and neighbourhoods during a disaster. It starts immediately after the disaster strikes, since the reconstruction programme incorporates both physical and social issues. *Hence, involvement of people in recovery process is the key to success.*

### 3.3 PRINCIPLES, STRATEGIES AND CHALLENGES

The above discussed cases, and many more from the region, point towards certain key concepts and lessons, which can be used to derive some basic principles of community, based disaster management. The basic principles on which CBDM stands are:

- Planning, implementation and management owned by community, led by local champions.
- Interventions start from locally available resources, capacities and partnerships.
- Community considers choices and takes decisions.
- Programmes focus on developing local coping capacities.
- Disaster preparedness approached from a development perspective.
- Sustainability considered as an underlying factor.
- Attention to special vulnerable groups.

These principles are translated into implementation strategies for creating the desired impact on the ground. Each situation merits a unique solution with a combination of inputs. However, the principles and the process structure remain universally applicable to all situations. Most commonly used strategies and actions are described below:

- *Public Awareness*

Public awareness is the first step towards marketing the concept of CBDM and creating a demand, locally, for disaster reduction efforts. Once the demand has been established, programme interventions create enabling environments and linkages with resources for fulfilling this demand. This could be understood as interest articulation and empowering the communities to voice their concerns for the same. Public awareness is carried out through community meetings, events, mass communication programmes organised by non-government organisations, and activity based awareness interventions on the part of the government. Gabriel Almond has ascribed the task of political communication to the political elite. It implies informing the people about government policies and programmes being pursued/introduced by the government for their benefit and enabling/aiding them access the same since many programmes have been known to fail due to lack of awareness on the part of people and inability to access the right sources/power centers. Right to information is another significant facet of public awareness. Though the bill has been enacted (2000), its successful implementation would depend on activism on the part of civil society in this regard and the vigil exercised by the media.

There are restrictions on information relating to security, foreign policy, defence, law enforcement and public safety are standard. But the Freedom of Information Bill also excludes Cabinet papers, including records of the council of ministers, secretaries and other officials, which effectively shields the whole process of decision-making from mandatory disclosure.

The Bill provides for a fee to access information, but without specifying what the minimum or maximum amounts would be. Most important, there is no

mechanism to punish delay or refusal to grant information. So there is no compelling reason for the official concerned to provide answers. Instead, the law provides for two internal appeals within the government machinery and, in addition, blocks access to civil courts (further read at the Infochange India web site)

- *Research and Documentation*

Learning processes are critical to the *adaptive nature* of CBDM. Every situation demands specific intervention as per sensitivities which need to be periodically studied/monitored; hence, it is important to constantly document and reflect upon social processes such as group cohesion based on caste, and other forms of ethnic identifications, and to draw suitable strategy for intervention for desired social chemistry based on lessons from past experiences in disaster response. For example, it was experienced in the recent tsunami that aid did not reach the backward segments since group cohesion exhibited negative social capital based on caste considerations. Women and children are also generally known to lose out because of social biases. Understanding of social dynamics is crucial to understanding threat in each case. For example, in societies where elders are left alone, people are more at risk from heat waves, which is what is happening presently in Europe. Hence, studies are needed to gain insights regarding these issues in case of each particular society.

Physical vulnerability of existing infrastructure needs to be periodically improved and mapped, which requires constant updating. Baseline surveys, community based monitoring and evaluation processes, and mapping studies have to go on in tandem. Participatory appraisals are most useful and also imperative/indispensable for the purpose. Such studies could give ‘biased’ results if carried out unilaterally by a central authority or an international organisation. It has to be participatory exercise where vulnerable communities articulate their own concerns and also suggest measures, which need to be taken to improve their resilience/coping capacity. A key concern would be acceptance of any new measure(s) by the local community. A pilot study of any proposed new project would be the desired suggestion in this regard (Todd and Palakudiyil, 2004-05).

- *Capacity building*

Capacity building implies upgrading the *reserve capacity* of the communities, which gives them more *staying power* during disasters. Local capacity building is a means of ensuring that reliance on external assistance will not perpetuate, and that communities will increasingly be able to take care of their recurrent needs. Capacity building is not only for better emergency response, but also for taking developmental actions that reduce the impact of future disasters. The World Disasters Report, 2004 rightly points out that “there is little analysis of how people survive disasters, and even less programming that builds on their coping strategies... in the field of disasters, most emphasis has remained on assessing needs, hazards and vulnerabilities - at the expense of analysing the strengths, skills and resources available within communities.”

The report recommends a paradigm shift from the traditional risk reduction approach, which starts with hazards and risks, then looks for linkages with development to the sustainable livelihoods approach, where disasters, including the capacity to resist their impact and bounce back are part of a wider development

framework. For example small scale measures like social forestry, fish-farming, drought-resistant crops and rainwater harvesting can reduce the risk of environmental degradation and hence the threat from natural disasters like wildfires, droughts and floods

Micro-finance, cash aid and income generation projects, is being explored as alternate strategy in post disaster relief, instead of simply distributing relief items. Rather than funding and implementing recovery projects themselves, many aid organisations now ensure affected villagers *access government compensation or soft loans* to help them rebuild their homes and lives after disaster. Programmes that improve knowledge of HIV/AIDS can prevent the disease's spread. To endorse the argument, in India, local knowledge of indigenous, hardy seeds has helped farmers recover from the loss of cash crops devastated by drought and pests.

Capacity building is carried out primarily through skill upgrading exercises, both technical and management skill sets. Local warehousing for stockpiling supplies, generating alternate livelihood options for 'at risk' communities, for example, fishermen who venture out despite warnings of cyclones would be other essential resilience measures. Means of sustainability that have been tested and found promising include formation of *local task forces*, adoption of an *entrepreneurial model* for operating community programmes, linking disaster reduction programmes with *livelihoods*, and establishment of *local contingency funds*.

Six conclusions, which could be treated/understood policy prescriptions have been drawn in this regard in the World Disasters Report of 2004:

- Systematic assessment of what enables people to cope with, recover from and adapt to risks and adversities at household and community level is badly needed.
- Strengthening social capital should be the key objective of disaster interventions, whether in relief, recovery or risk reduction; rather than a by-product.
- People-centred approaches to development provide models that can improve humanitarian aid and disaster risk management.
- New institutional strategies and cross-sectoral coalitions are required to boost the resilience of local livelihoods in the face of multi-dimensional risks.
- Good governance is essential to create the environment, in which the more resilient communities can thrive.
- Scaling up strategies based on the aspirations and capacities of people 'at-risk' remains the greatest challenge.
- *Networking*

The central premise of social capital is that *social networks have tangible value*, which cannot be discounted in cost-benefit analyses or policy implementation and evaluation. Networking is the first step towards establishing partnerships. Partnerships enable communities to capitalise on directly and indirectly available resources. Partnerships open new avenues, reduce costs and increase benefits. Partnerships operate at various levels and with different kinds of stakeholders.

Partnerships can be with other communities, local governments, higher governments, NGOs, academia, corporate entities and technical or resource groups. Social capital inheres in all social ties; modalities are different, as, between people, between institutions, government and civil society, between region and countries and so on. The level used to analyse social capital differs widely in the studies selected. Some studies focus on the social capital of a small community (Kreuter, et al., 1998), others compare a country's provinces or regions (Putnam, 2000), while others use countries as a unit of comparative analysis (Knack and Keefer, 1997). In Canada, Buckland and Rahman (1999) compared the reaction of three communities that experienced the Red River flooding in Manitoba in 1997. The research revealed that the two communities with a higher stock of social capital succeeded in organising themselves more rapidly and efficiently than the third, which had a lower stock of social capital. Studies conducted under the aegis of the World Bank indicate the following three indicators of social capital:

*Trust:* Two elements of this indicator are trust in *others* and trust in *institutions* (government, police, politicians, journalists, etc.). This is the *defining element* of social capital.

*Civic Engagement:* Civic engagement is a measure of involvement of people in social and political matters. It implies *volunteerism* on the part of people and modalities (provisions) for the same in social and political matters.

*Social Networks:* Social networks are the third indicator that is frequently found in the research. They are formed by the person's immediate environment and by secondary networks. Networks centered on the individuals include immediate networks (i.e. the close family, friends and neighbours with whom the person has frequent contact and who provide support). The secondary networks include those formed through relationships that individuals establish, especially in the workplace and recreational environments, during community or religious activities.

- *Sustainability*

The final determinant of success in a programme is its sustainability *beyond the period of investment and aid*. Sustainability is viewed in terms of mainstreaming risk reduction, and developing a culture of prevention through public policy. A study indicates how, following the devastating earthquake of 2001, villagers from Patanka in Gujarat state rebuilt their homes stronger than before, with the help of a partnership of local and international aid organisations. Farmers, left unemployed by three years of intense drought, retrained as masons and helped build earthquake-resistant houses for every family in the village. Building on the success of this initiative, villagers were able to access government funds to create a new rainwater-harvesting system to improve both their health and crop yields. Another study conducted in the Samiapalli village in the disaster-prone state of Orissa, reveals how prioritising risk reduction before disaster strikes mitigates its impact considerably. During the 1990s, with the help of a local NGO, villagers embarked on a long process of development, one element of which was to construct disaster-proof homes. When the super cyclone of October 1999 struck the village, these houses saved both lives and livelihoods, while tens of thousands of people in weaker homes perished.



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### 3.4 REQUIREMENTS IN CBDM

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The World Health Organisation (WHO) in collaboration with the League of Red Cross and Red Crescent Societies recommends the following activities for disaster preparedness of communities:

- Exercises in first aid: how to extricate, give first aid to, and transport injured persons etc.
- Exercises in providing temporary shelter: organisation of camps for temporary shelter in event of a disaster.
- Sanitation exercises: Installation and management of water supply points and latrines, controlled refuse disposal etc.
- Guided visits to volcanoes, seismological observatories, dykes, civil protection centers (fire stations, forest warden posts etc.) factories, stores of dangerous materials, sites exposed to risks.
- Dummy runs and practice alerts organised by the local authority.
- Strengthening of flimsy structures in avoidance with the programmes of the local administration, groups of dwellings can be strengthened with the help of voluntary workers, school children etc.
- Flood protection (various means of ensuring that a watercourse does not overflow its banks.
- Information (exhibitions of drawings, lectures, photographs, films on disaster preparedness)
- Training of groups of volunteers available to help the community emergency community in activities when a disaster strikes and afterwards

Besides, show of camaraderie by means of persistent efforts towards community preparedness based on:

- Encounters, exchanges, the expression of needs, information and communication
- Community discussion and action to gain an understanding of the causes of disasters and associated problems plan the most appropriate measures and put them jointly into effect.
- A feeling of belonging to the community by making proper use of local cultural values, forms of social life, resources and products,
- Combating the rejection or exclusion of the disabled, mentally ill, the handicapped and other persons in difficulty.
- The development of assistance and mutual aid,
- Meetings with local authorities and collective discussions to resolve community problems.
- Dissemination of warning regarding an impending disaster is vital. The issue in this regard is proper communication of warnings, avoiding technical jargon, which makes it unintelligible for the ordinary masses and the wherewithal of dissemination of such warning. An information management checklist

has been provided in the Source Book on Disaster Management, Ministry of Agriculture, Government of India, and the Lal Bahadur Shastri National Academy of Administration, Mussourie:

- ✓ Are maps prepared and available to the community (topographic, demographic, hazard and vulnerability)?
- ✓ Is a public information center/control room designated official point of contact for the public and the media during an emergency?
- ✓ Are there provisions for releasing information to the public including appropriate protective actions and devised responses?
- ✓ Have agreements been reached with the media for disseminating public information and emergency warnings?
- ✓ Are contact details for all media outlets (radio, television, and newspapers) available?
- ✓ Who is responsible for providing information to the media?
- ✓ Who is responsible for authorising information there?
- ✓ Who is responsible for emergency assessment and to whom do they report? How is the information recorded and who relays the information to those concerned?
- ✓ Who is responsible for issuing public statements about emergencies?
- ✓ Do they have public credibility and adequate liaison with other organisations that may also issue warnings?
- ✓ Who is responsible for providing warnings for each likely type of emergency?
- ✓ To whom is the warning supplied?
- ✓ At which warning level is action initiated?
- ✓ What is the purpose of the warnings and what action is required of the public?
- ✓ Who will inform the public when the danger has passed?
- ✓ Is there a point of contact for members of the public wanting specific information, and is this point of contact public known? (Control room).
- ✓ Is there a referral service for directing people to the appropriate sources of information?
- ✓ Is there a registration and enquiry system for recording the whereabouts of displaced, injured, or dead persons?
- ✓ Is there a system for providing this information to bonafide inquiries?
- ✓ Does the community know how to contact the registration and inquiry system?
- ✓ Are there plans for establishing public information centers?
- ✓ Is the community aware of the existence of these centers?

### **Preparation of Local Health Personnel**

Disease outbreak is a major problem in the immediate aftermath of disasters, as was seen recently during the Mumbai floods. Therefore, the role of local health personnel is crucial in both mitigation and preparedness as is prevention during normal times. Primary Health Care Centers (PHCs) are inadequately equipped and are also too few and far between to handle emergencies adequately. There is also lack of trained manpower. This is a policy issue, which requires concrete measures on the part of the government. Cooperation of non-government organisations could be elicited in this specific aspect of disaster preparedness at the local level (WHO, 1989) in that trained volunteers could be engaged in this task and specialist competence could be provided by non-government organisations which is presently lacking in the non-government sector. Over the long term however, the network of PHCs would have to be improved for capacity building to tackle disaster vulnerability. As per Alpana Sagar in the *Alternate Economic Survey, 2004-05*, Indian data reveals that there is shortfall of infrastructure and personnel in the rural areas. While the shortfall for primary health centers and sub centers is about 7-8 percent; that for community health centers is about 40 percent. The shortfall for specialists at the community health centers is anywhere between 90-95 percent while there is rarely more than one doctor at the primary health center though the ideal number is two. There is acute shortage of grassroots workers, from 20 percent of female workers to 50 percent shortage of male workers. There is also a shortage of more than 50 lab technicians. Subsequent to the eight five- year plan there has been only marginal improvement in manpower and infrastructure for health.

As read in the *Economic Survey 2004-05*, keeping the requirements and the objectives of the National Health Policy, 2002 in view, allocations for AIDS control programme and schemes for control of communicable diseases have been raised during the year by about Rs. 280 crore. State Health System Development Projects are under implementation in the States of Karnataka, West Bengal, Punjab, Orissa, Maharashtra, Uttar Pradesh, and Uttaranchal with World Bank assistance. Up- till now health care administration has suffered for lack of inter-sector integration at the field level. Hence, there is an attempt now at convergence of schemes, which had operated hitherto, in isolation. A National Vector borne disease control programme has been started from 2003-04, through convergence of three ongoing programmes (Malaria, Kala-azar and Filariasis) and inclusion of Japanese encephalitis and dengue. The main objective of the programme is prevention and efficient control of vector borne diseases in pursuance of the goals laid out in the National Health Policy, 2002.

Empowerment of local institutions of self- government is also expected to go a long way in strengthening health service delivery, in the sense of bringing them under one umbrella, especially in rural areas, though there is a long way to go since many institutional adaptations would be required, which would depend on the political will and feasibility in different states.

### **Provision for Food Security and Nutrition**

Despite the Green Revolution, deaths due to malnutrition are reported from different parts of India. Problems lie, chiefly, in the distribution mechanisms. The public distribution system (PDS) was set up to make food available at affordable prices to the poor. However, its functioning has been plagued by

corruption. There have been reported mal practices like buying kerosene at subsidised rates from the PDS and selling them at high prices in the open market, etc. Hence the current challenges outlined in the tenth plan are:

- Continue to improve food grain production to meet the needs of the growing population;
- Increase production of coarse grains to meet the energy requirements of BPL families at a lower cost;
- Increase production of pulses and make them affordable to increase consumption;
- Improve the availability of vegetables at an affordable cost throughout the year in urban and rural areas.

Hence, the Tenth Plan (2002-07) announces a paradigm shift from:

- Self-sufficiency in food grains to meet energy needs to *provide food items* needed for meeting *all the nutrition needs*.
- From production alone to *reduction in post harvest losses* and value addition through *appropriate processing*.
- From food security at the state level to nutrition security at the individual level.

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### **3.5 CBDM: APPROACH AND DIRECTION**

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In order to make CBDM an accepted and recognised process for disaster management, intervention is needed in three broad areas:

#### **1) Cooperation and Capacity Building**

Experience shows that disaster management, being multi-disciplinary in nature, requires wide-ranging inputs from government, non-government, international agencies, universities and other specialised agencies. Recent examples of healthy cooperation between India and elsewhere in Asia have led to remarkable results. Cooperation has not just better results for the community but also enabled institutions to build up their capacity based on the expertise and experience of the organisations they have partnered with. Cooperation and capacity building among various stakeholders working at the grass roots would provide the most effective mechanism for any policy that is formulated in this regard.

#### **2) Sustainability and Up scaling**

There have now been far too many good practices that have taken place in the disaster vulnerable regions of the world. However, most of these good practices have remained confined to their local communities. Their potential in influencing attempts to reduce vulnerability in other parts of the world is enormous, especially since regions that face similar disasters have similar vulnerabilities and capacities. Lately, various documentation attempts by various international agencies including United Nations International Strategy for Disaster Reduction (UN-ISDR) and brought them onto the global center stage. However, this is not enough. In order to replicate good practices widely, identifying factors that can make such practices sustainable and scalable are necessary. A discussion on sustainability and up scaling of good practices from various communities of Asia and other parts of the world is core of the policy framework.

### 3) Integration of Policy Issues

In large countries such as India, recent disasters have strengthened the need to define a national policy management of disasters in the country. Existing developmental policies are also being examined to incorporate disaster prevention and preparedness. However, there has been limited debate on the content and thrust of these policy initiatives. Incorporating grassroots experiences within the possible constraints would provide real substance to the national policy.

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## 3.6 FEATURES OF CBDM: UNDERSTANDING THROUGH CASE STUDIES

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A review of recent CBDM experiences in Asia reveals that central to each experience has been a well- understood and coordinated partnership aimed at common interests and goals. Stakeholders in these partnerships have included local governments, civil society, corporate sector, universities and communities themselves.

In spite of the successes, possibilities of further enhancing the benefits of such partnerships have rarely been seriously considered. The trade-offs are also seldom deliberated upon. Partners ought to know each other's strengths and weaknesses. The whole intervention should be arranged so that all partners get the most out of the cooperation by filling in each other's voids, and take constructive advantage of the accumulated force that emerges from a good partnership.

The CBDM approach attempts to address certain key questions on disaster management:

- How can communities live with disasters, rather than fighting them?
- What local measures can be taken to effectively mitigate the impact of disasters?
- How can preparedness initiatives be sustained over long time periods?

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## 3.7 EXAMPLES IN RESILIENCE

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The following sections discuss how community based disaster management can be:

- Self-driven,
- Led by local champions,
- Based on partnerships.

Besides these three characteristics, there are many that can be discussed if one gets into greater details. These could include, among others, the attributes of being low-tech and easy to understand, affordable, easily replicable and up scalable, developmental and, most importantly, empowering.

### I) Self-driven

CBDM has existed from time immemorial. Communities have depended on their coping capacities, have developed these capacities over time, and have survived based on these. The basis of these capacities is that people have observed their

environments, and the changes and reactions taking place therein, and from these they have learnt to adapt and change their actions so as to live better with nature. The following case is one such case from modern times where a community has learnt and acted to protect its environment for reducing disasters (FAO).

### *Chipko: from tree hugging to satellite images*

The Uttaranchal region is constituted of Himalayan districts in North India. During the late sixties, a massive program to develop roads was undertaken in the region. This brought employment opportunities for the local population. More importantly, it opened up gateways between the area and the outside world. Possibilities of flow of technology and materials from outside became real, as did the means for cashing their own asset, timber. Tracts of forestland were given out on contracts for tree felling. Contractors employed local people for these operations. The stretches of the slopes above the road altitude were wiped clean of the trees. The economy looked up. Nobody, not even the locals, bothered that the unscientific clearing of the innumerable trees in a small region was heavily bruising the crust of the forest land and the ramming of rain water mixed with stones and pebbles was getting increased to a tremendous extent.

One monsoon night in 1970, the valley of the Alaknanda, a river traversing the state, was the scene of an unprecedented flood. The entire village of Belakuchi was washed away by the swirling torrent of the Alaknanda, along with several busloads of tourists. The flood affected an area spread over a length of 400 kilometres and washed away five major bridges, hundreds of heads of cattle and several million rupees worth of property. Those who saw the scene, cannot forget the night when the 'river was on fire'. The banging of huge boulders carried by the strong current created deafening thunderous sounds and huge sparks flew from the river.

Even those in the plains were not spared. The flash flood first washed away what came in its path, and then left the area heavily silted and boulder strewn. Major canal networks were clogged. Subsequent desilting operations took so much time that the farm output of the regions downstream nose-dived that year due to lack of water for irrigation.

It was evident to any local resident that once the forest cover disappeared, the economic hardships and the terror of man-eating tigers would be replaced by an even more awesome terror of floods, landslides, and drying up of previously perennial streams.

The Alaknanda tragedy left a deep impression on the hill folk and soon followed an appreciation of the role that forests play in their lives. They had also watched the slow replacement of broad-leafed forests by economically important species like the pine and had slowly felt the deleterious effects of this shift on their cultivation and water supply.

The reaction was spontaneous and simple. *Chipko* – hug the trees! This was the way chosen by the local community to save their trees from the saws of timber contractors. A major break-through for the movement came on March 26, 1974, when 27 women of Reni village in Chamoli district, under the leadership of Gaura Devi, an illiterate lady of 50, resorted to *Chipko* to save 2,451 trees of Reni forests. The women folk of village Reni got involved in a dramatic way.

One day when their men folk were away, and the Chipko workers and the students were detained at faraway Gopeshwar town to meet officials of the forest department, the contractor taking this as an opportune moment reached the village with his men to begin the felling. However, undaunted by the number of men, the women of Reni, led by Gaura Devi, barred the way to the forest and resorted to Chipko, singing “this forest is our mother’s home, we will protect it with all our might.” They did not allow a single tree to be felled.

The movement has come a long way since then. It gained much acclaim for being a totally community led initiative, without any involvement of outside agencies, not even NGOs. Tree felling has since been totally controlled, and afforestation drives have yielded some positive results in terms of regeneration of forests on the denuded slopes. However, more important than the achievements of the programme; are its *means*. *There are two highlighting features of this aspect:*

*Van Panchayats* (forest governing councils) are an innovative institutional instrument that has been very successful in its purpose. Van Panchayats are constituted on the pattern of the Panchayats or the rural local governments. The elected Van Panchayat is responsible for the maintenance of the village forestland. It monitors and controls all activities in the forest, including woodcutting and even grazing of cattle. An interesting fact is that over the years, the Van Panchayats have come to be totally dominated by women. This, they feel is very logical since the hardships of environmental degradation affect women the most since it is they who are responsible for getting firewood for cooking, fetching drinking water from faraway sources, and grazing the animals.

The Dasholi Gram Swarajya Mandal (DGSM) is a community based organisation that came up as a strong local institution after the Chipko movement, and has since been instrumental not only in promoting forest regeneration activities, but also in encouraging local resource based entrepreneurial development. It is interesting to note that the DGSM, comprising totally of local villagers, has been monitoring the success of its afforestation program through satellite imagery based remote sensing carried out by the Indian Space Research Organisation. DGSM propagates disaster prevention through safe development, and organises local campaigns on the theme. It is also the first responder in local disasters such as landslides, earthquakes and forest fires.

## **II) Led by Local Champions**

CBDM cannot be put into effect through a government order, nor can it be implemented as a project by an NGO. It has to rise from the ground, up; it has to have the communities in the driver seat; it has to enshrine processes that will make it locally owned and sustainable. The most appropriate catalysts for this are local champions, who arise from within the communities, motivate the masses, and lead them through the process of change from a state based to a community based development and disaster management approach. The following case is from a sustainable community initiative in the state of Gujarat, India, illustrating the role of local champions (GSDMA, 2005).

### ***Examples from Gujarat, India***

With a population of almost 50 million in Gujarat State in western India, a substantial proportion of which is at risk to one disaster or the other, it is huge

task to reach out to each and every individual. How then can we create a scenario where the community as a whole can become resilient to disasters? How does one reach out to every individual? A viable strategy is to develop appropriate mechanisms for targeting communities through champions.

The GSDMA (Gujarat State Disaster Management Authority) supported project on Sustainable Community Initiative for Disaster Recovery and Preparedness in Ranavav Taluka, District Porbandar, made an attempt on this. The challenge of the project was to reach out to every village in the Taluka within a limited budget and time frame. The project implementation agency was SEEDS (Sustainable Environment and Ecological Development Society) in partnership with UNCRD (United Nations Centre for Regional Development) and NGOs Kobe. It adopted an approach that would focus on building the capacity of local champions: *champion-individuals* and *champion-communities*. These individuals/communities were expected to sustain efforts initiated during the project for a longer period beyond the duration of the project. These individuals and groups championed various sectoral causes as described below.

### *Champions of Safe Construction*

The 2001 earthquake had a partial affect on Porbandar, the western district of Gujarat where the project was piloted. Obviously, while wide consciousness prevailed, there was very little that the community knew about specific actions to be taken for reducing the risk from future earthquakes. As part of the strategy to push for safer construction practices, it was decided to build the capacity of existing masons in the region. Enter, Ramesh and Magan bhai Thakore, skilled masons from an earthquake affected area who, having experienced the earthquake and picking valuable skills during rehabilitation, knew exactly what they need to share with their counterparts in Porbandar!

An intensive process of identification, one-on-one meetings, and encouragement of prospects ensued. It generated enthusiasm among a small group of masons from Porbandar, who willingly agreed to enhance their skills. During the process of training, the main purpose was to build skills in disaster resistant technologies and quality construction practices. The training involved a combination of theoretical sessions, group interactions, exercises and demonstrations. The training also was to be a starting platform for a long-term pool of masons who, with help from SEEDS INDIA and the Government of Gujarat, would regularly interact through newsletters and meetings. Recently these masons have registered themselves as a Mason Association for getting necessary certification for their skills under a Government of Gujarat programme.

- *Water Farmers*

Porbandar, like other parts of Saurashtra, has suffered repeated droughts in the recent past, seriously limiting the scope of the farmers to sustain themselves. With the ingress of salinity from the Arabian Sea further threatening their livelihoods, the need for increasing rainwater retention in their fields was felt very strongly.

During the first meeting with the farmers, the SEEDS team offered their ideas on various water harvesting options. The villagers were expected to partially contribute to the scheme. On-site training and awareness programmes were



organised, clearly explaining the process of implementation. A reduced scale model of the village was developed and the water conservation as well as augmentation technique was visually demonstrated. After initial reluctance, a small group of farmers decided to take up the experiment. The catalyst to this process was Govindbhai, Headman of Valotra village. A farmer by profession, he is an excellent leader who takes interest in village development, and his Panchayat (village council) has won two awards.

Within a short span of time, this small group of farmers has become an active advocate of the well recharge system, taking out time to travel to nearby villages to convince fellow farmers about the benefits of the scheme. Govindbhai has been instrumental in the success of the water conservation movement. He now offers to carry out awareness programmes in his village and neighbouring areas for safe construction practices and also for water conservation. A champion in this group, he keeps regular touch with the SEEDS project team that in turn develops and adapt knowledge resources that can help the farmers by bringing in new technologies.

- *Cultural Ambassadors*

Performing arts and theatre have tremendous influence on local citizens. Tired after a hard day's work, the people settle down for cultural activities as a means to unwind and interact. Common cultural activities promote greater understanding and forge unity in the community. When these cultural activities carry with them important social messages, the impact is strong and direct.

Devraj Gadhavi, a folk singer, is the cultural champion of Porbandar. Known for his Dayro styo of folk music not just in Upleta, the village he hails from, but the entire region, he is a fail-proof crowd puller. When he performs, he often has an important message to convey. When the project team met him and shared its ideas on promoting disaster mitigation, he readily agreed to get involved. During Community Fairs held in the area since then, he performs to a huge crowd and within his performance he urged people to volunteer for the sake of others. He said, "True happiness lies in serving others". A few words of wisdom, when spoken by a person loved and revered, make a lasting impact on the lives of the people.

- *School Teachers: Agents of change*

Mr. Joshi, the principal of Swaminarayan School, is a well-known teacher with many state and national awards to his credit. He is also the head of the Scouts and Guides Wing at Porbandar. He has been instrumental in arranging demonstrations and workshops in schools. The team led by Mr. Joshi includes his colleague Mr. Waghela, the children of scouts and guides, and the members of Junior Red Cross Society.

Mr. Joshi is now ready to share his learning with others. Today, as schools in the region are conducting rescue drills, children now understand what happens in an earthquake, cyclone or drought. They know their village environment and what they need to do to counter disasters.

- *Champion communities*

Champions are not limited to individuals alone, communities too become champions. There are many such champion communities across the regions that

have served as models for others. One such community is the village of Thoyana, where people come together to promote mitigation not just in their own village, but also with others through well thought out yet simple disaster resistant activities. These have included water harvesting, school safety programmes, mason trainings and women's group activities. For the project team, the meetings at Thoyana have always been good. Led by their village headman Vejabhai Odedara, and the teacher Pravinbhai Kasundara, the community at large is most cooperative and proactive. The women in the village have been active too. In Community Fairs, the villagers of Thoyana now participate most actively, making a positive impact on other communities in the vicinity. Everyone, from the village women, the masons, the leaders and the businessmen, has together become a model community for the region.

These are the local champions, prime movers of the community. They are the key to building long- term resilience at the community level. Gujarat needs many more such champions. All vulnerable regions of the world need such champions. With the government and NGOs acting as facilitators, there is an opportunity for a lasting change. A change where people, motivated by their own champions, take wise decisions to bring about development that is sustainable and safe from disasters.

### **III) Based on Partnerships**

The key to the success of community initiatives lies in partnerships. Partnerships between individuals, families, local groups, and communities make things happen and sustain them on the ground. Partnerships of communities with NGOs, corporate entities and governments create engines for development. They also create safety nets that make communities disaster resilient. The following case from Vietnam illustrates the strengths of such multi-sector partnerships (UNDP Vietnam, 2005).

#### ***Natural Disaster Mitigation Partnership, Vietnam***

The Natural Disaster Mitigation Partnership (NDM-Partnership) is an association of voluntary members of Government, Donors and NGOs who have signed or expressed their commitment to work through the NDM-Partnership Memorandum of Agreement ratified in June 2001 by the Consultant Group (CG) of donors to the Government of Vietnam.

Natural disasters that devastated Central Vietnam in 1999 led to the development of an institutionalised arrangement for coordinated efforts for disaster mitigation in Vietnam. In early 2000, a Fact- Finding -Mission and in the mid 2000, a Multi- Donor- Mission was fielded to the disaster affected Central Vietnam. The data collected during these Missions provided the basis for developing the concept of the NDM-Partnership for Central Vietnam.

A Secretariat of the NDM-Partnership was set-up in May 2002 in Hanoi. A quarterly Newsletter of the Partnership was started in September 2002 for sharing information among Government agencies, Donors and the NGOs. The website provides updated information of the NDM-Partnership activities:

The institutional framework for implementing the NDM-Partnership for Central Vietnam and the partnership cooperation and coordination links to donor and government programs and projects is given in the following figure.

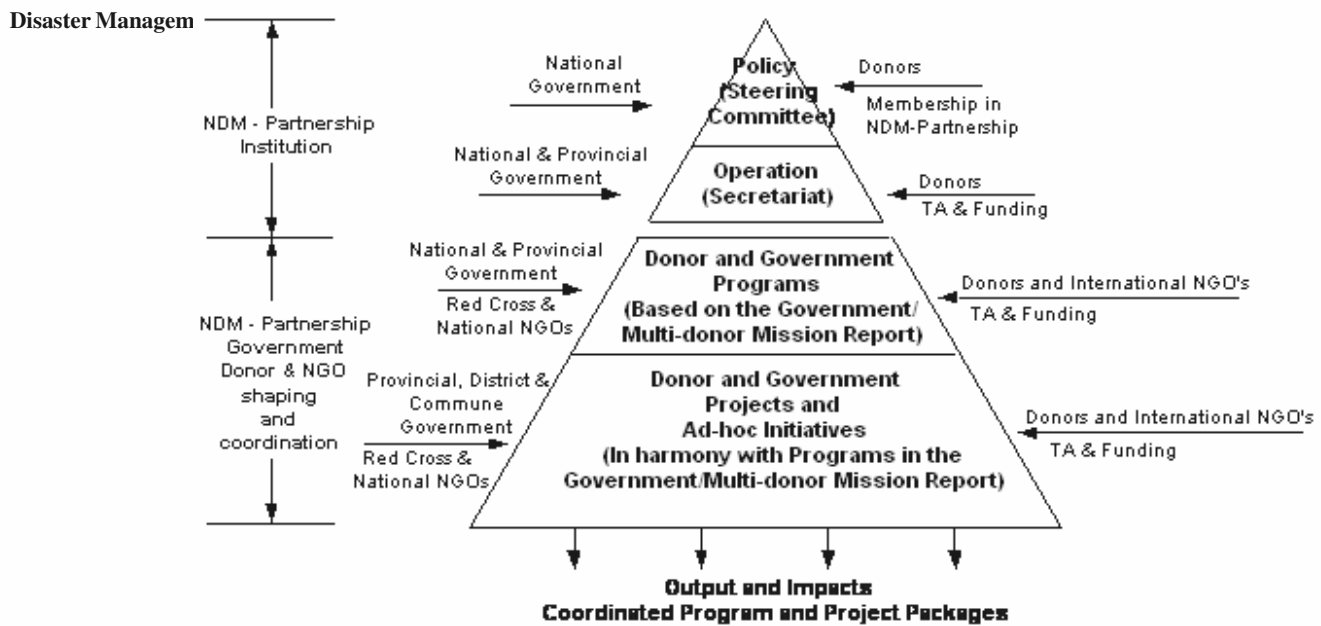


Figure: Institutional Framework of NDM Partnership, Vietnam

### 3.8 CONCLUSION

CBDM finds its roots in traditional community practices, and is based on local coping capacities of communities. Following the principles and strategies of CBDM in modern day programming is not without challenges. It requires balancing of stakeholder interests, optimisation of resource allocations, resolution of conflicts, and restraining aspirations within manageable limits. Continuation of a programme for a long term is one of the challenges where many interventions have failed. This has many linked issues, and needs to be addressed right from the stage of intervention conceptualisation. Within this aspect, an area of concern is the dynamics of new institutions that get established and individuals or groups that get empowered. The change in balance of power structures creates potentially threatening situations, and careful handling and balancing is required. This holds true for community institutions and their links with other community groups, local political groups, local politicians and government officials, and even NGOs. Establishing a healthy partnership between government and non-governmental players is a crucial challenge in the CBDM process. Finally, it is a challenge to keep interventions from getting carried away into becoming fancy programmes for high-tech emergency management. What works best on the ground is a low-tech, people-friendly developmental approach that would be operational on a day-to-day basis and will build local strengths. Simplicity of approach is a challenge in itself!

### 3.9 KEY CONCEPTS

**Community** : Scholars differentiate between *society* and *community* as, the former is naturally ordered and is heterogeneous in character, whereas the latter is a result of deliberate networking on the part of people on some homogenous ground. Homogeneity could be on grounds of geographic

contiguity, ethnicity, religion or caste etc. It is however, evolving and dynamic in nature, never static in that configurations change.

**Participatory Risk Assessment** : The idea behind participatory risk assessment is that all concerned stakeholders including/ comprising vulnerable groups; civil society engaged in ameliorative works, corporate sector by way of both *private interest* (builders in case of vulnerable buildings) and *public interest* (corporate social responsibility) and the government to arrive at a consensus in identification of elements at risk and also the most vulnerable area, infrastructures and populace (“Development Planning and Administration”, 2003). Notable among techniques of participatory risk assessment are, Participatory Rural Appraisal (PRA) Participatory Learning and Action (PLA) and Social Analysis (SA).

**Participatory Rural Appraisal** : 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. Three common elements found, all over world, in a PRA approach, are:

Three common elements found all over world in a PRA approach, are:

- *Self-Aware Responsibility*: individual responsibility and judgement exercised by facilitators, with self-critical awareness, embracing error.
- *Equity and empowerment*: a commitment to equity, empowering those who are marginalised, excluded, and deprived, often specially women.
- *Diversity*: recognition and celebration of diversity.

**Participatory Learning and Action** : PLA combines:

- A set of diagramming and visual techniques originally developed for livelihoods analysis and now widely used in Natural Resources departments in development agencies. They have since been adapted for use in other sectors including enterprise development; and,

- Underlying principles of grassroots participation from human rights activism, which involve rethinking power relations and partnerships between development agencies, experts and poor people. These are now being developed further to facilitate negotiations between different stakeholders in projects and policy dialogue.

The underlying principles of PLA, include: “embracing complexity; recognition of multiple realities; prioritising the realities of the poor and disadvantaged; grassroots empowerment; from assessment to sustainable learning; and relating learning to action” (Linda).

### Social Analysis

- : Social Analysis is an attempt at incorporating participation and social analysis into the risk identification process. It is an attempt at understanding the social matrix and how it contributes to the vulnerability of segments such as women and children. From social analysis emerge guidelines for policy in this respect.

### Social Capital

- : Social capital is an economic analogy for bonds of community cohesion, which can translate into tangible gains. “Social capital refers to the collective value of all social networks and the inclinations that arise from these networks to do things for each other; in other words, “norms of reciprocity”. The central premise of social capital is that social networks have tangible value, which cannot be discounted in cost- benefit analyses or policy implementation and evaluation” (Putnam, 2005).

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### 3.11 ACTIVITIES

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- 1) In the above case studies which community-level solutions have been applied for mitigating various disasters? Make a table of disasters and coping measures. For each of the measure, describe how this has been useful in reducing problems relating to disasters in each case. List down the key stakeholders involved in each case and what has been their contribution towards mitigating the disaster.
- 2) Collect one case study on effective mitigation for any risk in your area. Prepare a presentation and discuss possibilities of further improvement.