



■ Sustainable Community Based Disaster Management (CBDM) Practices in Asia



UNCRD

■ **A USER'S GUIDE**

Sustainable Community Based Disaster Management (CBDM) Practices in Asia

A USER'S GUIDE

Edited by
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EDITORIAL NOTES

Effective and successful disaster reduction initiatives are often attributed to the spontaneous participation of the communities and involvement of the people. In most cases, it is observed that the community initiatives produce results so long as there are external supports from the government, nongovernment and/or international organizations. The term “Community-Based Disaster Management”(CBDM) received attention in the development field in the 1980s, although community-based disaster initiatives were already on-going in different parts of the world in formal or informal ways. It was mainly the nongovernmental organizations (NGOs), which were conducting the CBDM projects at different scales and with different stakeholders. In due course, selected donor agencies, international NGOs, and regional/ international organizations initiated different CBDM programmes, and thus the activities received national and international attention.

For decades, it was a common notion that grass-roots/community initiatives were the responsibilities of the NGOs. Thus, there were very few attempts made to incorporate the CBDM initiatives in national-level policy or international-level commitments. Consequently, the major challenges of the community based disaster management (CBDM) were: 1) sustainability of the efforts at the community level, and 2) incorporation of CBDM issues at the policy level. To be effective and to create a sustainable impact, the application of the CBDM must go beyond the initiative of communities, NGOs and a handful of local governments. As part of an advocacy for more responsive and effective governance, national and state level governments should look at integrating CDBM in their policy and implementing procedures.

The United Nations Centre for Regional Development (UNCRD) Disaster Management Planning Hyogo Office has incorporated CBDM as its main emphasis area of operation under the overall organizational mandate of sustainable regional development and human security. To study the sustainability issues of CBDM, the UNCRD Hyogo Office has formulated a three-year project, with specific emphasis on the Asian region. This User’s Guide is the first step in the process of institutionalization of CBDM.

The purpose of the Guide is to provide a simplified and general set of guidelines and tools for different users: Policymakers, National Disaster Managers, Local Disaster Managers, Trainers, and Community Workers. This User’s Guide is based on the selected experiences from Asian countries, and attempts have been made to generalize it for wider application. We understand very clearly that each country and community has its own local characteristic with different social, economic, political, religious, and cultural context. Therefore, the User’s Guide needs to be adopted to the local context. We shall be glad if users find this a useful reference book, and use it for implementation of CBDM initiatives.

Rajib Shaw and Kenji Okazaki
Editors

PREFACE

Disaster risk is on the rise throughout the world. Over the past two to three decades, the economic losses and the number of people who have been affected by natural disasters have increased more rapidly than both economic and population growth. The impacts of the disasters are deeply related with the socio economic conditions, tradition, culture, and climate of the communities. In order to reduce the damage caused by disasters, it is therefore essential to enhance the capacity of communities to deal with disasters. It is thus crucial how to motivate individuals to understand their own disaster risk and to take actions against such risk.

While different community empowerment programmes related to disaster mitigation have achieved their objectives, they are often short term, and issues on sustainability in these efforts are rarely addressed. In this regard, the United Nations Centre for Regional Development (UNCRD) Disaster Management Planning Hyogo Office, which has been conducting various disaster mitigation activities, launched a three-year research project entitled, "Sustainability in Community Based Disaster Management (CBDM)." The goal of the project is to achieve safety and sustainability of livelihoods for effective disaster mitigation, focusing on three key elements: self-help, co-operation, and education. The objectives are:

- To study the effectiveness of the grass-roots initiatives from the successful practices,
- To make a model for the sustainability of these initiatives in terms of policy options for undertaking future grass-roots projects,
- To apply the findings to different communities, and
- To disseminate best practices through training and capacity-building.

During the three years of the programme, the following activities are being conducted:

- Year 2002: Field Survey, documentation of best practices through 6 case studies in the region, and preparation of the overall framework for the sustainability of CBDM (completed)
- Year 2003: Development of Guidelines and Tools. Field testing of the developed Guidelines and Tools were implemented in selected areas for specific hazards (completed)
- Year 2004: Efforts made in disseminating CBDM to a wider constituency in conjunction with building partnership for the World Conference on Disaster Reduction WCDR.

UNCRD organized the International Symposium on "Community Legacy in Disaster Management" on 7 February 2004, as a Pre-event for the UN WCDR to be held in Kobe in January 2005, aiming to shed light upon the various grass-roots disaster management activities indigenous at the community level which could be strengthened, institutionalized, and replicated over generations for the benefit of communities around the world. International experts from various countries were invited to actively participate in this process, and to bring to the discussions their rich, varied, and in-depth experience from this field. Their suggestions and ideas have been incorporated into this "User's Guide."

We are confident that the "User's Guide" will be very useful as well as user-friendly for a wide-range of various stakeholders to promote community based disaster management. We hope that you will apply this "User's Guide" to the communities in which you are involved and will be kind enough to send your feedback to us. With such feedback, we will be able to further improve the "User's Guide."

Kenji Okazaki
Coordinator
Disaster Management Planning
UNCRD Hyogo Office

PREAMBLE

Why this GUIDE?

The application of principles and practices of community based disaster management (CBDM) is NOT limited to those who work at the community level. Policymakers should consider incorporating these into their drafting of appropriate acts and legislations. National and local organizations should consider adapting CBDM as part of their overall disaster risk management programmes and plans. Thus, different stakeholders have their roles and responsibilities in the CBDM process. This GUIDE is intended to provide a set of guidelines, tools and a framework for different users for effective implementation and sustaining CBDM activities. This GUIDE should be considered as general criteria which might, and should, vary from country to country, from community to community. Therefore, while using this GUIDE, country and community context should be kept in mind.

Why Disaster Management?

A natural event becomes a disaster when it causes losses of lives and/or properties. Since disasters affect people's livelihood, involvement of people as individuals, and community as collectives, are important to reduce the impact of disasters.

Natural disasters occur every year and could happen anywhere in the world. Disaster management is directly linked to human security. Many of the natural disasters, like floods and drought, are found to be directly related to environmental degradation and climate change. These disasters hurt the poor people the most by affecting their lives, properties and livelihoods. Therefore, by creating disaster resilient communities, it is possible to improve human security.

In recent years, natural disasters have

changed their characteristics and the risk of being affected by natural disasters is significantly increasing, especially in developing countries. The number of events increased dramatically from the 1960s, and in the 1990s, the number almost doubled from the previous decade (ADRC Data Book 2000). However, what has been witnessed in the last decade is obviously not natural, rather, it can be said that it is more "man-made" disasters as a consequence of human activities.

For developing countries, natural disasters take a heavy toll on development. One disastrous calamity can be a plague for years holding back healthy economic growth. To mitigate such natural disasters, various efforts have been made at different levels. During the United Nations International Decade for Natural Disaster Reduction (UN IDNDR, 1990-1999), a paradigm shift has been observed from post-disaster relief and rescue to pre-disaster mitigation efforts. Another focus area was empowerment of local governments and involvement of non-governmental (NGOs) organizations and civil societies in the decision-making system.

Why CBDM?

"CBDM achievements are "small wins" that vulnerable communities contribute to grander goals of disaster reduction."

(IDRM)

The Great Hanshin Awaji Earthquake of 1995 hit the city of Kobe and other parts of Hyogo prefecture in Japan causing serious losses of lives and properties. Immediately after the earthquake, many people were rescued from the debris by their neighbours and relatives. Statistics show that 85% of the people were either self-evacuated or were rescued by their neighbours. This indicates the importance of the local community

"At the center of sustainable development is the delicate balance between human security and the environment. Critical to this is the need to explicitly plan for improved environmental management and sustainable development to disaster prevention and preparedness."

Sadako Ogata and Amartya Sen
"Human Security Now",
May 2003

immediately after the event. Since the reconstruction programme incorporates both physical and social issues, involvement of people in the recovery process is the key to its success. Community participation and involvement is a universal process. It does not depend on the development level of a country.

CBDM has been a popular term for the last several years. In a few cases it was incorporated into government policy. It has been a common notion that CBDM is the responsibility of the grassroots organizations and NGOs. There are two major aspects in this regard: First, the best practices of CBDM initiatives become local initiatives, without proper dissemination. For example even though there have been good examples of CBDM in a certain location in a country, the lessons are not transferred to other parts of the country, nor do they go to the adjacent countries of the region. The other aspect is that due to lack of recognition of CBDM initiatives at the national level, there are often fewer resources poured into these activities. Thus, in most cases, CBDM is seen in isolation from national disaster mitigation practices. It is also not included in the national development policy. Therefore, there is an increasing need to understand the basics of CBDM, and to try to formulate a framework for incorporating CBDM in policy issues with special focus on sustainability.

What is Community?

“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”.

D. W. McMillan and D. W. Chavis, 1986, Sense of Community: A definition and theory, Journal of Community Psychology, 14, 6-23.

Many people define community in different ways. The current definition is that the community includes not only

the people living in a certain location, but also the local government, local business sectors, local academic bodies and NGOs.

Why Sustainability?

The key aspect of community involvement is its sustainability. Government, non-government and international organizations implement various programmes before and after the disasters. Most of them are very successful during the project period, but gradually diminish as the years pass. There are many reasons for the gradual decrease in people’s involvement in a project. The most common elements of community involvement are partnership, participation, empowerment and ownership by the local people. Unless the disaster management efforts are sustainable at individual and community level, it is difficult to reduce the losses and scale of the tragedy. While people should own the problems, consequences and challenges of any mitigation and/or preparedness initiative, it is necessary to take people’s involvement further, into policy and strategy.

The United Nations Centre for Regional Development (UNCRD) Disaster Management Planning Hyogo Office focused on the community initiatives in the Asian region targeting different stakeholders, from local government decision makers to schoolchildren. Although different stakeholders were targeted in different initiatives, an integrated approach was felt for a long time. After the devastating earthquake in Gujarat, India on January 26, 2001, an initiative called Patanka Navjivan Yojna (PNY) was formulated in cooperation with different agencies in India and Japan. The aim of the initiative was to train and empower local masons and communities with proper earthquake-safer technologies focusing on local tradition and culture. Emphasis was to ensure confidence building and long-term use of traditional technologies. The initiative was successful, especially in

If disaster management efforts are sustainable at individual and community level, it reduces the losses and scale of the tragedy.

terms of community involvement and ownership. The other unique feature was establishment of strong cooperation and understanding among diverse stakeholders including local government, local NGOs, and international organizations. This cooperation benefited every actor involved in the initiative, but the actual ownership still remained with the community. The initiative was considered a successful model for sustainable community recovery.

An important challenge of the initiative was when should the outside agencies, including the local NGOs, leave. The timing and the mode of exit was found

to be an important aspect, in the sense that it should not reduce the community involvement in future. Different schemes were developed to ensure the sustainability of the initiative at individual, community and village levels; and also to disseminate the experiences to other parts of the country and region, the major two challenges often faced in community initiatives. Although the long-term impacts are yet to be seen, the experiences of PNY urged the need to study sustainability issues of community initiative for other types of hazards in other countries of the region.

Using this GUIDE

This guide is divided into seven chapters: Introduction, Generic Guidelines and User-Specific tools in five other chapters.

Introduction describes the process of formulation of the guide, and summarizes the findings of the case studies conducted in six countries.

Generic Guidelines seeks to provide a complete discussion of the factors, best practices and examples that will enhance sustainability of CBDM. This document serves as additional reference to other tools targeting different users.

User-Specific Tools: There are five user-specific tools for :

Policymakers

The national level politicians, and senior bureaucrats who prepare policies for their governments. This will include ministers, secretaries of the ministries and heads of the national disaster management facilities. At the local government, policymakers will include city mayors and local politicians who prepare the city or regional policies.

National Disaster Managers

Professionals, technocrats and bureaucrats in the national governments (like the line ministries, disaster management bureaus and other central government agencies), who are responsible for implementation of disaster management initiatives of the country.

Local Disaster Managers

The city, district or province level disaster managers, who are responsible for the implementation of local disaster initiatives. This includes city/ district/ province department officers and practitioners.

Trainers

The groups or individuals who provide training to the community, its leaders and their change agents. Trainers are considered as outside entities to communities and, therefore, facilitators.

Community Workers

They have experience in handling disasters, emotions, hazards, coping mechanisms and uncertainties like other members of the community, and are potentially at risk vis-a-vis natural calamity. The community workers could be from outside the community also.

In the Appendices, a Glossary of Terms is provided, along with Case Studies, Field Application and Related Links and Information.

INTRODUCTION

Search for Critical Factors

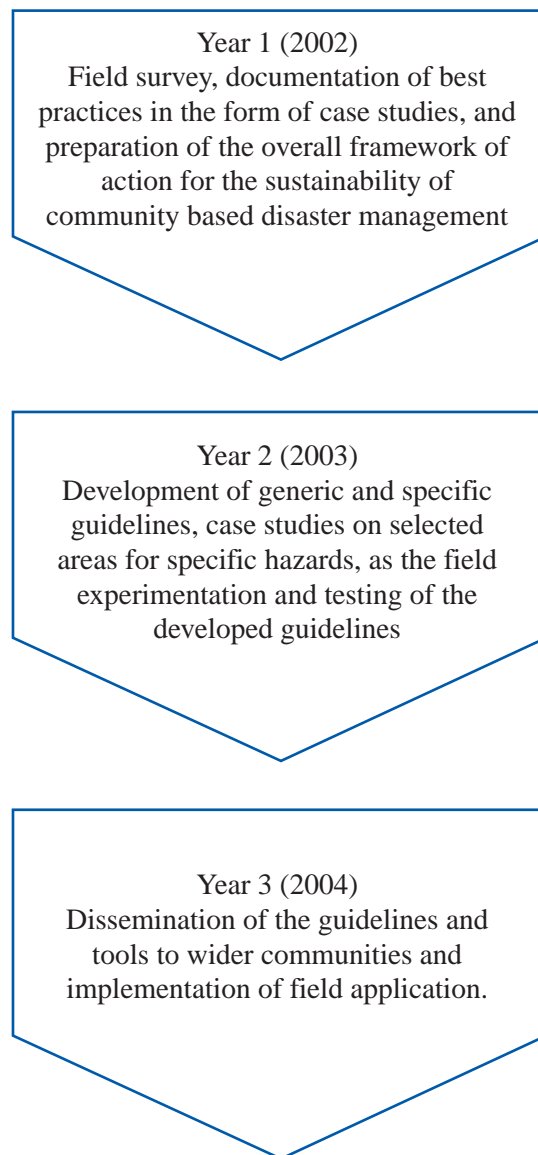
In the Year 2002, UNCRD launched a three-year project on titled “Sustainability in Community Based Disaster Management”, to study the effectiveness of the grass - root projects and to suggest policy input for sustainability, which will be useful for the different communities to take future actions. This was to help to understand the gaps in the community initiatives, and to take corrective actions in future. The study would be an evaluation of what has been done so far in CBDM with specific examples from field experiences, and what should be done in future for the sustainability of these efforts. In this study, the inter-linkages of government, non-government, academics, and international organizations should be reflected in terms of concrete projects and initiatives, and a model of cooperation would be established.

With the overall UNCRD organizational goal of Human Security, the goal of the current study is to achieve safety and sustainability of livelihoods for effective disaster mitigation, focusing on three key elements: self-help, cooperation, and education. This goal will be achieved by setting specific objectives:

- To study the effectiveness of the grass-root initiatives from successful practices;
- To make a model for the sustainability of these initiatives in terms of policy options for undertaking future grass-root projects;
- To apply the findings to different communities; and
- To disseminate the best practices through training and capacity-building

The goal is to achieve safety and sustainability of livelihoods for effective disaster mitigation, by focusing on: self-help, cooperation, and education

During the three-year project, the following activities were planned:



Year 1 (2002)

Field survey, documentation of best practices in the form of case studies, and preparation of the overall framework of action for the sustainability of community based disaster management

Year 2 (2003)

Development of generic and specific guidelines, case studies on selected areas for specific hazards, as the field experimentation and testing of the developed guidelines

Year 3 (2004)

Dissemination of the guidelines and tools to wider communities and implementation of field application.

Case Studies

To identify the key factors for successful CBDM, six case studies were chosen in the Asian region targeting three specific hazards:

- Cyclones (India and the Philippines)
- Earthquakes (Indonesia and Nepal)
- Floods (Bangladesh and Cambodia)

After the selection of counterparts, field-surveys were conducted in each country jointly by the UNCRD and the counterpart, and the Case Study site was selected. The consultant developed a set of guidelines for each Case Study.

During the Case Study, local workshops were organized to collect information on the project. An expert group was formed in Kobe, Japan with the members of academic organizations, NGOs and government bodies. This group met twice during the project period. This expert group provided insights on the project methodologies through experiences in Japan and other parts of the world. An international workshop - cum -Working Group discussion was held in Manesar, India from 2-4 December 2002. The second Working Group Discussion and International Workshop was held in Kobe from 30

January to 1 February 2003. The findings of the case studies were summarized in the form of lessons learned, and were analyzed to formulate the strategic framework for sustainability of the efforts in the communities. (The details of the case studies are available at <http://www.hyogo.uncrd.or.jp>, and a summary is presented in Appendix 2.)

In the second year, three consultants were appointed for development of guidelines and tools. In May 2003, a joint meeting was held among the consultants to reach a mutual understanding and agreement on the framework and structure of the guidelines and tools.

Based on this, draft versions of the guidelines and tools were developed, and the draft versions were field tested in three countries with the following counterparts:

- Bangladesh: CARE Bangladesh
- Philippines: Philippines National Red Cross (PNRC)
- Viet Nam: Canadian Centre for International Studies and Cooperation (CECI)

(A summary of the field-testing is provided in the Appendix 3.)

Six counterparts conducted the case studies :

- Bangladesh: CARE Bangladesh
- Cambodia: Cambodian Red Cross
- India: Sustainable Environment and Ecological Development Society (SEEDS)
- Indonesia: Institute of Technology Bandung (ITB)
- Nepal: National Society for Earthquake Technology (NSET)-Nepal
- The Philippines: International Institute for Disaster Risk Management (IDRM)



- Six case studies
- Cyclones (India and Philippines)
 - Earthquakes (Indonesia and Nepal)
 - Floods (Bangladesh and Cambodia)

Comments were sought from 19 professionals and organizations in different parts of the world, with specific focus on the Asian region. These comments were discussed in detail during a two-day working group meeting in Kobe, Japan in February 2004, and the revised version of the tools and guidelines were prepared.

How Well We Know CBDM?

It is universally accepted that governments have the prime responsibility for managing disasters and for taking into consideration the roles played by different players. In the past, top-down and command-and-control approaches were oftentimes used to manage the consequences of disasters. In this approach, decisions come from higher authorities based on their perception on the needs. The communities serve as mere “victims” or receiver of aid. In practice though, this approach was proven to be ineffective. It fails to meet the appropriate and vital humanitarian needs. Moreover, it increases requirements for unnecessary external resources and creates general dissatisfaction over performance despite exceptional management measures employed. This is due to the fact that the community, as the primary stakeholder and recipient of the direct impact of disasters, was not given the chance to participate in the process of decision-making and implementation of activities.

On the other hand, communities if left alone have limited resources to fully cope with disasters. Disasters can be overwhelming and in most cases require exceptional measures far greater than the requirements of ordinary day-to-day living. In many developing and underdeveloped countries, those who suffer the most are the poor, who, in the first place have limited survival resources and do not enjoy adequate infrastructure and access to social services. They are also oftentimes neglected in the decision-making process of development programmes

that will impact on their lives. Sadly, some poorly planned development programmes lacking transparency and participation have also exacerbated communities’ vulnerabilities to natural and man-made hazards.

Based on this rationale, the idea of balancing the approach from top-down to incorporating a bottom-up participatory approach was initiated. Thus, the Community Based Disaster Management approach emerged.

What is CBDM?

It is common knowledge that the people at the community level have more to lose because they are the ones directly hit by disasters, whether major or minor. They are the first ones to become vulnerable to the effects of such hazardous events. The community, therefore, has a lot to lose if they do not address their own vulnerability. On the other hand, they have the most to gain if they can reduce the impact of disasters on their community. The concept of putting the communities at the forefront gave rise to the idea of community-based disaster management. At the heart of CBDM is the principle of participation. Through CBDM, the people’s capacity to respond to emergencies is increased by providing them with more access and control over resources and basic social services. Using a community-based approach to managing disasters certainly has its advantages.

Although indigenous coping mechanisms have existed for as long as human history, the term CBDM was first used more popularly in the middle of 1990s in the Asian region following the realization that:

- The local population in a disaster-prone area, due to exposure and proximity, are potential victims and assume most of the responsibilities in coping with effects of disasters

The communities serve as mere “victims” or receiver of aid

- The local population has local knowledge of vulnerabilities and are repositories of any traditional coping mechanisms suited for the own environment
- The local population responds first at times of crisis and the last remaining participants as stricken communities strive to rebuild after a disaster

The CBDM approach provides opportunities for the local community to evaluate their own situation based on their own experiences initially. Under this approach, the local community not only becomes part of creating plans and decisions, but also becomes a major player in its implementation. Although the community is given greater roles in the decision-making and implementation processes, CBDM does not ignore the importance of scientific and objective risk assessment and planning. The CBDM approach acknowledges that as many stakeholders as needed should be involved in the process, with the end goal of achieving capacities and transferring resources to the community, which would assume the biggest responsibility in disaster reduction.

It should be noted that in an environment where the economy is worsening and resources are growing more scarce, CBDM would thrive as it promotes local, affordable and

incremental solutions. It should, however, be emphasized that local solutions should not be left alone and resource agencies, including government should not take CBDM as a substitute for not taking action.

It should be noted that many community members will have different perceptions of the nature of disaster risk. In particular, residents who have not experienced a major earthquake before in their area would not know the effects of such an occurrence. The eruption of Mt. Pinatubo is an excellent example. Although it is classified as active by the country's volcanologists, its previous eruption was over 600 year before the 1991 event. Thus, residents and authorities around the volcano did not perceive the magnitude of these devastating effects. Similarly, due to climate change and variability, residents and local authorities may not be aware of the projected worsening hazardous conditions, intensity and frequency of extreme climate events. Experiences show that a CBDM programme could address these limitations; by ensuring that hazard awareness activities are more targeted according to prevailing perceptions of communities.



The CBDM has a goal of achieving capacities and transferring resources to the community

Why CBDM?

- Local population would have local knowledge regarding vulnerability and capacity conditions.

Every local population has local knowledge regarding vulnerabilities and capacities. There are several traditional coping mechanisms suited for their specific environment that they have developed from previous experiences in dealing with disasters. In Bangladesh, CARE, an NGO, reports that due to the engagement of vulnerable communities in flood-proofing measures, the community was able to achieve significant results in protecting their household assets, so much so that losses due to recurrent flooding have declined by as much as 75 %. Thus, “savings” have been reinvested into home improvements, improved nutrition and health care.

- Because of their proximity, local populations respond first even before assistance from external aid givers arrives at times of crisis.

Due to exposure and proximity to hazardous conditions, the local population is the first to respond to a disaster even before help comes from external aid givers. By using what is available locally, a timely response is possible. Timeliness in emergency response is critical because this

determines how many lives will be saved or how many properties can be saved from being damaged. This was made evident by the Village Disaster Management Committees and Task Forces in the state of Orissa in India when they took the lead role in evacuation and relief distribution during the 2001 floods.

- When all agencies including international donor organizations have left, it is the local populations, which strives to rebuild their community.

When all agencies including international donor organizations have left, it is the local population, which strives to rebuild their community. In the Philippines, the Municipality of Guagua, in the Province of Pampanga, the Pampanga Disaster Coordinating Council has vigorously pursued structural and non-structural measures to address the devastating effects of volcanic lahar or mudflows after the massive eruption of Mt. Pinatubo in 1991.



Due to exposure and proximity to hazardous conditions, the local population is the first to respond to a disaster

- CBDM strengthens social cohesion and cooperation within the community and society.

CBDM strengthens social cohesion and cooperation within the community and society. It builds confidence among individuals, households, communities for any undertaking including disaster preparedness and mitigation. Through CBDM, it is hoped that communities will be strengthened to enable them undertake any programmes of development including disaster preparedness and mitigation.

Is Sustainability Achievable?

There is no doubt that a CBDM approach is valuable and cost beneficial. A recent study in Bangladesh proves this point. Through this study, it was made clear that a community-based approach is more cost effective than expensive structural mitigation measures, a luxury which most developing countries and disaster-prone countries can not afford or sustain without external assistance. Ideally, the necessary structural and non-structural measures should complement each other in achieving local level disaster reduction.

Documented experiences from various Asian countries attest to the fact that CBDM practices have been successful in saving lives, reducing household

losses and communities have become less dependent on outside intervention from government and other organizations. The challenge then is how to sustain the successes already achieved by CBDM.

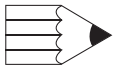
It has been observed that the initiatives in many cases are not sufficiently maintained. While several community-based programmes related to disaster reduction have achieved their short-term objectives, there has been no comprehensive study on the effectiveness and sustainability of these initiatives for a longer period.

Local self-reliance, informed awareness, and a culture of prevention-mitigation and preparedness are just some of the advantages of community participation. But these consequences are hard to achieve due to some issues and constraints that hinder effective participation. Communities are generally unaware of the potential hazards they face; they underestimate those they know, and overestimate their ability to cope with crises. But because the level of their participation greatly affects the sustainability of the CBDM, deliberate and systematic participatory methods of engaging the community, which could tackle these issues, are required.

Sustainability as a concept may differ from people to people or organization to



CBDM approach is valuable and cost beneficial



organization. However, for this discussion, sustainability of CBDM is taken to mean the ability to, or the capacity of, a particular community to maintain CBDM activities over time. Consequently, a community, which has successfully sustained a CBDM project, has a better chance of being a good place for residents to live and stay despite the constant threat of hazards, if living in a disaster-prone area. It cannot be denied that most natural hazards cannot be prevented however; a strong and resilient community can make sure that these hazards do not cause any major damage to life or property.

“Sustainability of CBDM is taken to mean the ability to, or the capacity of, a particular community to maintain CBDM activities over time.”

A community that wants to become more sustainable will:

1. Maintain and, if possible, enhance its residents' quality of life;
2. Enhance local economic vitality;
3. Ensure local and intergenerational quality;
4. Maintain and, if possible, enhance environmental quality;
5. Incorporate disaster resilience and mitigation; and
6. Use a consensus-building, participatory process when making decisions.

(Mileti 1999)

Self-assessment questionnaire for an organization framing a CBDM strategy:

- Describe CBDM the way your organization conducts it:
 - What are the goals/objectives?
 - What are the key components?
- What are the factors that may hinder continuation of CBDM by the communities after your assistance has been phased out?
- What are the factors that may enable communities to continue CBDM activities even after your assistance has been phased out?

“CBDM practice in the Philippines can be said to be a broad and encompassing approach aimed to address poverty and peoples' vulnerability. In pursuing CBDM, key disaster management actors are guided with principles such as people-centered development with bias to the poor or the disadvantaged sectors, need based, neighborhood and mutual respect, inclusive thus recognizes the importance of multi-stakeholders participation, continuous process of learning, integrated and with the spiritual dimension faith in God.”

The Philippine National Red Cross, December 2003



Sustainability of CBDM is taken to mean the ability to, or the capacity of, a particular community to maintain CBDM activities over time

Factors that will enhance sustainability

The following conceptual framework is derived as a result of the case studies :

SUSTAINABILITY OF CBDM : CONCEPTUAL FRAMEWORK

Factors that will enhance sustainability	CBDM Facilitation Objectives and Agenda
1. A “culture of coping with crisis” and “culture of disaster reduction” exist	Improving community’s access to early warning information, ability to learn lessons from previous disaster experiences and to estimate future disaster risk
2. Risk assessment process involves participation of people and incorporating their perception of vulnerability and capacity	People making the right and informed choices for identifying hazards, reducing their vulnerability and improving their capacity
3. Community and supporting agencies share common motivation and ownership for the initiation and sustainability of CBDM	Shared ownership of CBDM by community and supporting agency to: Address the underlying causes of vulnerability as part of a broader development effort; mobilize volunteers and target the most vulnerable; increase preparedness of community; protect and ensure positive socioeconomic development; and reduce deaths and massive destruction of properties
4. Genuine people’s participation within capacity building objectives, with specific focus on sectoral groups like women, elderly, children and ethnic minorities	Participation and capacity building through: Use of participatory approaches for community planning; formation of informal organization; institutionalizing mechanisms with legal tie up with local government authorities; strengthening of mandated local committees for disaster management, sustained public awareness involving all stakeholders. Participation and capacity building through gender and rights based approaches as part of the overall CBDM goal and objectives
5. Well-delivered training inputs in accordance with the objectives of CBDM and the needs of the community for training	Established organizations and institutions conducting appropriate training with well-targeted activities to include those who have current responsibilities over implementing the project components
6. Wider stakeholders involvement and participation	Stakeholders’ participation by identifying and mobilizing as many stakeholders as necessary; and promoting formal institutional arrangements among stakeholders that will improve accountability and transparency
7. Accumulation of physical, technological economic assets to reduce hazards and vulnerability	Establishment and operational village and contingency fund; micro-solutions, environmental protection measures, small and medium scale infrastructure project that reduces impact of hazards; equipment and materials, warning-communication, rescue and evacuation facilities; and technology in disaster resistant construction
8. Integration of CBDM projects into regular development planning and budgeting to ensure sustainability	Legislation and/or local authority plan incorporating vulnerability assessment and reduction into regular development



In summary, the most common factors enhancing sustainability are :

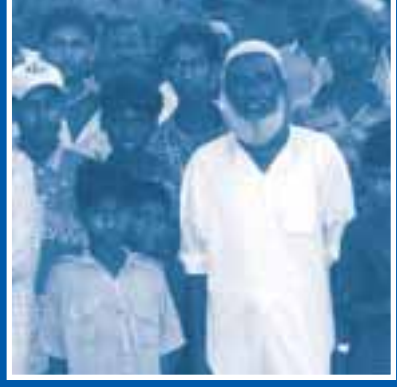
- | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. The existence of a “culture of coping with crisis” and “ culture of disaster reduction”;</p> | <p>5. Well-delivered training inputs in accordance with the objectives of the project and the needs of the community for training;</p> |
| <p>2. Risk assessment process involving participation of people and incorporating their perception of vulnerability and capacity;</p> | <p>6. Wide stakeholder’s involvement and participation. Effective networking and knowledge capitalization;</p> |
| <p>3. Community and supporting agencies sharing common motivation and ownership for the initiation and sustainability of CBDM;</p> | <p>7. Accumulation of physical, technological and economic assets to reduce hazards and vulnerability; and</p> |
| <p>4. Genuine people’s participation within capacity-building objectives, with specific focus on sectoral groups like women, elderly, children and ethnic minorities;</p> | <p>8. Legislation and in-incorporation of CBDM in development planning and budgeting</p> |

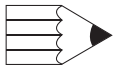
Each of these factors will be discussed in the following section, “Generic Guidelines”.

Risk assessment process involving participation of people and incorporating their perception of vulnerability and capacity



■ Generic Guidelines





Self-assessment questionnaire for organizations framing a strategy:

- How well does your CBDM activity promote awareness on disasters and regular and sustained access to disaster information?

What improvements if any are necessary to improve community’s perception and ability to estimate future disaster risks?

CBDM Best Practices	Rating of Practices		
	Regularly	Seldom	Not practiced
Explanation of causes and effects of disasters; geographical, scientific and physical considerations			
Explanation of environment and human interaction and its relationship to disasters; social, economic, cultural and political considerations.			
Discussion on sources and applications of disaster information, particularly the elements of risk mapping and early warning system			
Exercises on disaster scenario-estimation of potential effects of disasters and what to do in relation to this scenario			
Discussion on lessons learned from previous disasters and what improvements may be necessary			

Different communities have their own perceptions regarding vulnerability and capacity depending on the conditions of their locality



2. Risk assessment process involving participation of people and incorporates their perception of vulnerability and capacity

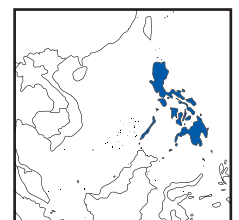
Traditionally, most risk assessments are done by experts using science related to a particular hazard. CBDM approaches advocate the involvement of communities in these processes. There are mechanisms for measuring the vulnerability and capacity formulated by CBDM practitioners, but there are factors that could not be measured and determined due to variable characteristics and conditions of the community. Different communities have their own perceptions regarding vulnerability and capacity depending on the conditions of their locality and

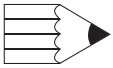
experiences acquired from each disaster. That is why it is important for the community to be involved in vulnerability and capacity assessment and let the people come up with a collective understanding on what they consider vulnerable conditions and critical resources for coping. The result of the assessment should be based on the perception of the community affected., and not to be influenced by the point of view of experts or assisting agencies. It is not advisable to have a preconceived notion of what the community considers as vulnerable conditions. It should not be taken for granted that being the one who experiences the effect of disaster, the community could give a preliminary estimation of vulnerability and capacity scenario necessary for community response. Based on their perceptions,

Example : 1

In the Bicol Region, a region composed of six (6) provinces in the eastern part of the Philippines, the locals are well aware of the fact that their province is the gateway for typhoons coming from the Pacific Ocean, the most prolific spawning ground of typhoons. Bicolanos, the natives of the area, are expecting and are prepared to face five to six super typhoons in the last quarter of every year. In addition to this, there is also the presence of an active volcano, named Mt. Mayon which erupts quite regularly.

A culture of coping and preparedness is then developed because of their exposure to frequent, violent and devastating hazards natural to the area. For instance in the areas affected by Mt Mayon volcanic eruption in the last three events, the local authorities in cooperation with communities have achieved a remarkable “zero casualty” rate.





they then could make their own choices from the available alternatives and options.

People making the right choices are a boost to CBDM sustainability. Studies and observations indicate that, in the past, having been left alone, the people had survived disasters and crises through their own means. These mechanisms are important starting points for any risk assessment.

It should be noted however that this ability does not exclude the need for expert support for hazard assessment. For example, there had been successful school safety awareness programmes in recognition of the large number of schoolchildren dying from earthquake effects. But recent earthquakes also pointed to a large number of children dying in unsafe houses that collapsed during earthquakes. Communities are generally lacking in expertise in monitoring and analyzing hazards and traditional belief systems and past experiences often are the basis for their estimation of hazards. In addition, the complexities of human interaction with the environment that exacerbate hazardous conditions are not given proper attention by the community. Thus a CBDM approach should incorporate peoples' perception of vulnerability and capacity with experts' knowledge of hazard assessment.

[Refer Example : 2](#)

Self-assessment questionnaire for organizations framing a CBDM strategy:

- From your organization's view point list the most important reasons why communities are vulnerable to disasters.
- From the community's view point list the most important reasons why they are vulnerable to disasters.

CBDM approach should incorporate peoples' perception of vulnerability and capacity with experts' knowledge of hazard assessment





3. Community and supporting agencies sharing common motivation and ownership for the initiation and sustainability of the CBDM

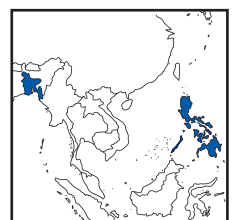
Most of the CBDM applications are conducted after major disasters have occurred in the locality. Thus, in these cases, people’s motivations to be involved are high, especially if the

projects clearly respond to their needs. However, in many vulnerable communities, experience shows that in the absence of relative frequency of hazardous events such as in earthquakes and volcanic eruptions, addressing disaster issues is not a top priority of communities. Evidently, base line research indicates that daily survival issues such as livelihood, lack of water and sanitation facilities, and crime dominate the peoples’ agenda for urgent action. Recognizing this, some disaster reduction specialists offer the opinion that communities could be more resilient

Example : 2

In Bangladesh, where vulnerability is perceived to be a complex interaction among unsafe conditions, poverty, lack of access to resources, landlessness, societal pressures, inequity, lack of education and other “under-development causes”, these types of vulnerabilities are comprehensively considered in the design of the CBDM programme. As a result, CBDM interventions are comprehensive in their approach to strengthen traditional coping mechanisms and in implementing risk reduction that addresses underlying causes of vulnerability.

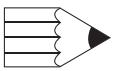
In the Philippines, communities in the flood prone areas of Central Luzon have adapted to the conditions of annual monsoon induced flooding. The abundance of water in fact is a boost to the local economy as the population has utilized the resources for a whole-year round rice paddy cultivation and aquaculture. Due to this, the Central Luzon region is one of the most economically vibrant regions in the Philippines. However, the Mt. Pinatubo eruption of 1990 (previous eruption was over 600 years before) highlighted the critical lack of knowledge of the hazardous conditions of the volcanic hazards in the region. Despite the general knowledge that it is an active volcano, there was a general belief among the communities that the volcano could not erupt in their lifetime.



to exceptional shocks brought by major disasters by helping and supporting them to cope with everyday and “normal” shocks.

It has been further established that perception of the community should be considered, as motivation for sustaining CBDM. Where it is lacking, CBDM promotes awareness of the importance of community -managed disaster reduction through training and participatory learning processes. Better understanding begets higher aspirations among people, which is essential for sustaining motivation and ownership of CBDM projects. Motivation can also be enhanced through legal measures that enforce compliance to risk management or safe practices. Governments can enhance sustainability of CBDM by legislating actions that promote favourable motivation for community safety.

Supporting agencies should also share similar perception on the need and motivation for sustainability. With a common agenda, they work as partners from planning and implementation of projects. Although the motivation among different communities varies, the perception of the community and the assisting agency should be uniform and will lead to harmonious relationship in responding to the needs of the situation.



A dilemma exists if vulnerabilities of communities actually arise from poor governance or even from bad choices a supporting agency in a project (such as an infrastructure project). The reality is that many communities, even those benefiting from recent CBDM activities, have not reached a level of capacity to address the root causes of vulnerability, including those related to inequity and poor governance. CBDM’s sustainability is enhanced if good governance exists and motivations are shared by stakeholders and communities.

Clearly in the case of Bangladesh, the community is the primary actor in the

planning and implementation of local projects, aided with adequate participation of other stakeholders including local and national government, partner-local NGOs, research organizations and donors. Likewise from other case studies, success of the projects depends largely on the promotion of shared goals and responsibility of the community and the assisting agencies.

This proves that although motivation for communities varies from one locality to another, based on perceptions as well as the choices that community and supporting agencies make, it is important that these local actors share the same motivation. This will lead to a sense of shared ownership of CBDM. Through this shared motivation, the case studies in these countries have shown how they are able to address various intensities of motivation. These include addressing the underlying cause of vulnerability as part of the broader development effort; mobilizing volunteers and targeting the most vulnerable; increasing the preparedness of the community; protecting and ensuring positive socio-economic development; and reducing deaths and massive destruction of properties.

[Refer Example : 3](#)

Self-assessment questionnaire for organizations framing a CBDM strategy:

- Does the community share the same reason and level of motivation as your organization for engaging in a CBDM programme?
- What actions should we take to improve the motivation of the community to be engaged and sustain CBDM?

Communities could be more resilient to exceptional shocks brought by major disasters by helping and supporting them to cope with everyday and “normal” shocks



4. Genuine people’s participation within capacity-building objectives with participation of sectoral groups at risk including women, elderly, children, ethnic minorities and children

Genuine participation and capacity-building could be achieved through use of participatory approaches for risk

assessment and risk reduction planning. The case studies demonstrate significant achievements regarding the use of different tools known as Participatory Rural Appraisal Methods (PRA). Following up and institutionalizing peoples’ participation are also demonstrated in the case studies. The variety of options to institutionalize peoples’ participation include:

- Formation of self-help organization among vulnerable groups
- Linking with local government authorities and local disaster action planning processes

Example : 3

In Orissa, India, the vulnerability of the population brought about by the recurring typhoons enabled them to recognize that preparedness should start from the grass roots where the community should be fully geared to organize themselves during disasters, while organized civil society and government should always be ready to immediately support and respond if the scale of disaster warrants external intervention. A CBDM approach enhances this harmony and clarity in relationship through institutionalizing local disaster action plans.

In Nepal and Indonesia, the agencies are challenged initially by the lack of attention given by local authorities and communities on the importance of earthquake resistant construction. Although earthquakes are frequent in these countries, they are not routinely experienced in the locality as compared for instance to annual flooding. In this case, demonstrations and public awareness activities are used to improve people and local authorities perceptions of earthquake risks to school buildings and traditional houses. When people are convinced of its importance through a CBDM approach focusing on grass-roots level activities, the programme achieved better effectiveness and impact.



- Strengthening of mandated local disaster management committee
- Sustained public awareness involving all stakeholders

Effective use of a participatory approach for community planning could ensure people's participation by making them involved in the decision-making process even if not being part of the formal decision making body. Formation of informal organizations like sectoral groupings also serves as a venue for community participation. In case there is already an existing organization within the community, it is important to identify whether it is an economic body, cultural organization, youth club, social group, developmental agency, religious, women's group or mass organization. One could encourage the creation of a stakeholders' group among identified organizations. This group could serve as their venue for consensus-building and collective actions in risk reduction. It is also useful that this group is linked with the formal authority, particularly those mandated to manage disasters locally. In case there are no existing formal organizations, committees could be organized. The committee should be characterized by good representation among the different sections of the community. In a disaster, these committees are expected to take the lead in the vulnerable situation and act for the larger community. They are also expected to take responsible decision-

making roles on behalf of the community.

Although vulnerabilities are relative conditions as they interface with hazardous conditions, there are strong correlations between marginalization of several populations and exposure to risks. For instance, the low literacy rates of women in coastal Bangladesh inhibit women's access and understanding to technical information of a cyclone warning message. Pre-school children in the fishing communities in Central Viet Nam are unorganized and have limited access to otherwise efficient government flood and storm warning systems. Children in Mekong River countries are more likely to be killed in drowning incidents due to the endemic inadequacy of safe locations where parents can leave them while attending to their livelihood.

Refer Example : 4



Effective use of a participatory approach for community planning could ensure people's participation by making them involved in the decision-making process

Self-assessment questionnaire for organizations framing a CBDM strategy:

- How well does your CBDM practices promote genuine participation within the context of capacity building objectives?
- What actions do your organization undertake to identify and include

participation of sectoral groups most at risk?
Explanation of causes and effects of disasters;

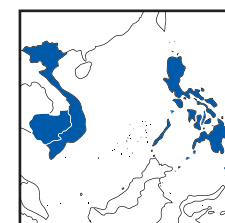


Example : 4

In the Philippines, the Local Government Code institutionalizes NGO, peoples’ organization and private sector involvement in the local development council. The local government authority cited in the case used this as basis for effective involvement of local population in disaster reduction. A local warning and radio-based communication system is established involving a network of volunteer watch points in strategic locations of the critical dikes and hazardous locations. The system includes deputization and use of private sector volunteers who have dedicated communication links with municipal and provincial disaster management coordinating organizations. At the village level, the local authority promotes a self-help mechanism through the formation and use of an information gathering, dissemination network through volunteers who work with elected village (barangay) officials. They also serve as mobilizers for active participation of vulnerable villagers. Furthermore, the local government organizes and trains Disaster Assistance Response Teams to respond to needs for rescue, evacuation and retrieval operations. These groups are institutionalized in the development plans and policy of the municipality with annual allocations of resources, thereby ensuring sustainability and continuity.

In Quang Ngai, Viet Nam, an ongoing CBDM programme (Quang Ngai Natural Disaster Mitigation Programme) focuses on primary level schoolchildren and school safety. The province has experienced deaths among its population in 1998 (89 killed) and 1999 (108 killed) storm-induced flooding. Severe flooding occurred recently in 2003 killing 21 people. Of particular significance is that no primary schoolchildren were drowned in the 2003 flood. In the past, this age group accounted for almost half the casualties in the 1998 and 1999 floods. The local Red Cross directly linked the fact that no primary schoolchildren died due to the CBDM activity that focuses on children at risk.

In Cambodia, where communities are still suffering from post-conflict trauma due to decades of divisive violent attacks among members of the community, the Cambodian Red Cross encouraged and facilitated the formation of a Commune Disaster Management Committee (CDMC). This was done under CBDM programme even prior to the institutionalization of the Commune Council and the first ever post conflict election of its members in 2002. Stakeholders of the programme believe that the CBDM through its participatory activities, promotes a better level of trust among members of the community and facilitates the process of collective engagement to discuss common problems and identify community level “micro-solutions”. Recently, the Royal Government of Cambodia through the National Committee for Disaster Management recognize the importance of this CDMC. As a result, these “informal” groups will be mandated to form the core of a Commune Committee for Disaster Management (CCDM) becoming a formal entity.



CBDM Best Practices	Rating of Practices		
	Regularly	Seldom	Not practiced
Participatory approaches (PRA/PLA) involving communities in hazard, vulnerability and capacity assessment as basis for community level risk reduction planning			
Formation of informal self-help organization which would represent the community in coordination activities with formal local authorities			
Institutionalizing mechanisms such as formal sectoral groups (ex. rescue teams) through tie-up with local government authorities and making them part of the local disaster reduction plan			
Strengthening of the process for local disaster action planning and support to mandated local disaster management committees			
Regular public awareness activities targeting all major stakeholders			
Community's active involvement in all phases of the project from planning, monitoring and evaluating			

What improvements, if any, are necessary to improve genuine participation within the context of capacity building objectives?



5. Well-delivered training inputs in accordance with the objectives of the project and the needs of the community for training

With reference to the six case studies, it was observed that the types of training differ from country to country. Training activities employed clearly respond to the specific and particular needs of the target communities and the training programmes are deemed appropriate to the level of knowledge and skills required by the people. This implies that there is no clear argument for standardizing community level training curricula, across the Asian region, contrary to some experts' views. Training is effective when the conceptual design, objectives, methodology and language are planned and adjusted in response to demand and needs expressed by the community.

Recipient of training should also be selected properly. Training entails provision of time, effort and resources so it should be provided to people who are willing to and/or have the potential and interest to assume responsibility over disaster reduction. Training should be well targeted to include those who have current and/or potential

responsibilities over implementing the CBDM project components.

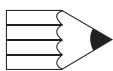
Delivery of training is conducted through established organizations and institutions. Effective and sustainable CBDM training activities are better done by those who have established rapport with communities and have a disaster management training mandate and/or those who are routinely involved in disaster management in the area. These, therefore, may include engaging the local universities, local committees, formal leaders and established emergency services.

With the right choice of training participants, well-designed training activities and engagement of established local providers of training and disaster management education, the likelihood of these individuals and organizations to continue to sustain CBDM is higher. The training programme must also include all the necessary requirements for skill development, information and knowledge acquisition and the right perspective. There should also be a monitoring and feedback mechanism so that necessary adjustments can be implemented if there is any deflection from the objectives based on the needs of the community.

[Refer Example : 5](#)



Training is effective when the conceptual design, objectives, methodology and language are planned and adjusted in response to demand and needs expressed by the community



Self-assessment questionnaire for framing a CBDM strategy:

- How are the target participants for training identified?
- Are their roles critical for the success and sustainability of CBDM?
- What actions should we take to improve training of community that may enhance and sustain CBDM?

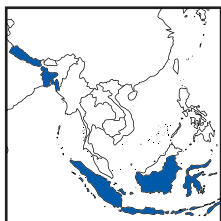


Example : 5

In Bangladesh, the project arranges extensive training for capacity building of Local Project Society (LPS) members and links the LPS with other development agencies and local government for sustainability of interventions. The project also formed a Mother's Club, Adolescents and Children Forum in each community and provide behavior change education on flood preparedness, health, nutrition, etc. For follow-up learning process and demonstrating the best practices an advanced group, called Community Based Volunteer (CBV) is promoted. CBVs closely work with the women's sector.

In Nepal, the agency provides technical assistance in developing the Kathmandu Municipality-Disaster Management Unit's plan especially for community-based awareness and training programmes. Subsequently, the dimension of the cooperative programmes increased both in content and extent. At present, the municipal disaster activities of the agency include assistance in the establishment of Disaster Management Committee (DMC) at ward level, assistance to the DMCs in the assessment of resources and vulnerabilities in the ward, action planning for mitigation and preparedness, organizing training programmes for school students, parents and other citizens together with other NGOs, community-based organizations, and clubs.

In Indonesia, focus is on technical training on structural and non-structural mitigation. The training on structural mitigation is designed for two different groups, i.e. engineer/university students and masons. The training covers the theory of seismic resistant design and construction as well as site visits to see ongoing practices of retrofitting and reconstructing the school buildings. The training on non-structural mitigation involves Training for Trainers schemes on "Earthquake Safety/Preparedness Program for School", with the school community from all earthquake prone cities/town in Sumatra Island. The curriculum of the training is designed so that trainees could then convey the earthquake safety messages to the school and children by developing "School Action Plan for Earthquake"



6. Wider stakeholders involvement and participation. Effective networking and knowledge capitalization

A stakeholder is anybody or any organization that maybe affected by disaster/s; and/or has a potentially significant role to play in risk reduction or coping with disaster effects in a community. Based on this definition, stakeholders could be numerous, and it is very vital to encourage a wide range of stakeholders to get involved in any CBDM project.

Stakeholders may play two roles: One, whether intentionally or not, they may be contributing to the configuration of disaster risk in a community, and two, recognizing that they contribute to disaster risk they are actively involved in risk reduction.

Examples from the first category include, people who throw garbage into drainage and river systems, NGOs who implement primary health care projects to reduce morbidity and mortality but ignore the importance of educating women and children on the basics of flood and/or cyclone warning systems in disaster prone areas. Local authorities who ignore the existence of and movement of informal settlements in dangerous hillsides and river erosion prone areas. Engineers and artisans who ignore building codes as they relate to earthquake and other physical risks and so on.

Naturally, the second category is desirable. For example, a safer community is achieved with school administrators and teachers actively involved in disaster education and school safety programmes. Religious groups are promoting awareness of risks and practical measures to reduce them. Local authorities enforce land use planning and building codes. Local private business groups contribute funds

and resources for local risk reduction solutions.

There are as many examples that can be highlighted, which essentially suggest that risk reduction is everybody's concern. This is contrary to traditional thinking that disaster management is the exclusive responsibility of emergency services, the IFRC, civil defence groups and social welfare agencies.

The task of implementers of CBDM includes facilitating networking and coordination of broad stakeholders' participation which implies that good governance that encourages constituents' involvement is the basic foundation that contributes to sustainable CBDM. Good governance provides a favourable environment for broad stakeholder's participation. Specific roles and responsibilities of a particular stakeholder must be identified based on their own understanding of their own value and abilities. In some cases like in the Philippines and India, these relationships among stakeholders are formal and legislated. But informal relationships also proved to be effective and do not necessarily hinder partnership arrangements at the community level. The choice depends on the political structure in a particular country and the perceived level of governance in the area although experience shows that formal institutional arrangements among stakeholders improve accountability and transparency, which is important for the sustainability of CBDM.

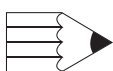
Public awareness on disaster reduction is one good practice that may promote easier mobilization of local initiatives and other stakeholders. In this age of speed of media coverage, internet and advancement of technologies, mobilizing "public" support is greatly enhanced for effective local actions. Networking and promoting knowledge capitalization could also contribute to sustainable CBDM. Clearly, as mentioned earlier it is crucial at the local level. In addition, supporting

Risk reduction is everybody's concern

agencies should consider resources, including knowledge, information and technologies that are available outside of the locality. The ranges of possibilities are listed in the table below.

Sustainability of CBDM: Roles and Relationship of Stakeholders

Community	Local-Level Organization	National Organization/s	International Organization/s
<ul style="list-style-type: none"> • Coping mechanism • Awareness and positive behavior • Choice based in informed awareness • Participation • Self-help and mutual aid schemes • Livelihood • Avoidance of hazardous conditions 	<ul style="list-style-type: none"> • Local Planning • Capacities • Resources • Funds • Training • Networking • Empowerment • Transparency • Accountability • Good governance • Institutionalization • Local Legislation 	<ul style="list-style-type: none"> • Good Governance • Incorporate risk reduction into development plan • Policy, national plan and legal Instruments promoting CBDM • Decentralization policy • Infrastructure development • Hazard Monitoring, Prediction Science • Early Warning System • Sustainable Development Policy and implementation • Information Communication Technology • Finance and technical support 	<ul style="list-style-type: none"> • Strategy for risk reduction • Sustainable development policy • Link to Environment, development and poverty reduction programmes • Functional regional cooperation • Conflict resolution of trans-boundary Issues • Sharing of best practices in risk reduction • Financial and technical support



Self-assessment questionnaire for organizations framing a CBDM strategy:

- Based on the matrix shown above, which of the stakeholder/s have limited involvement in the CBDM programme? Why?
- What actions should you take to improve participation of specific stakeholder/s that may enhance and sustain CBDM?

Public awareness on disaster reduction may promote easier mobilization of local initiatives and other stakeholders

7. Accumulation of physical, technological, and economic assets to reduce vulnerability

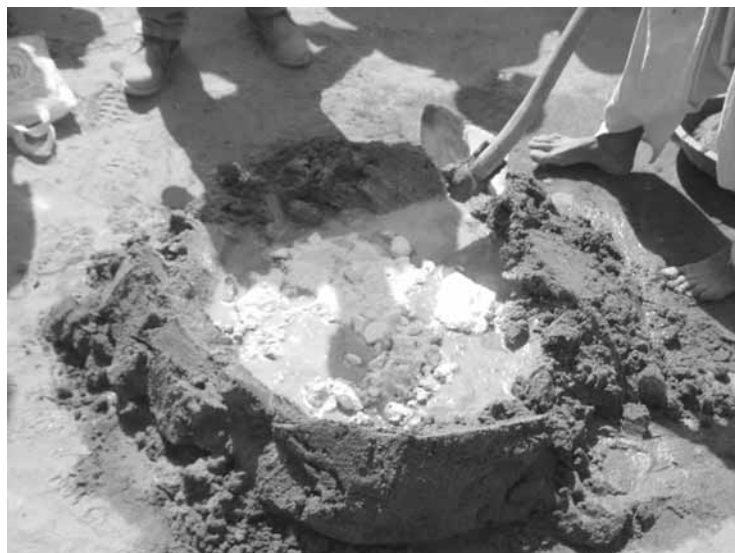
Tangible accumulation of physical and economic assets is considered to reduce vulnerability. This involves support for acquiring physical and economic assets that includes micro-solutions, local environmental protection measures, small and medium scale infrastructure projects that reduce the impact of hazards; and equipment and materials such as latrines, water supply, communication equipment and rescue and evacuation assets. These assets safeguard the community from the direct impact of the disaster or lessen if not totally prevent the impact of disaster on their property and lives.

Village contingency funds and availability of credit for income-generating activities comprises examples for improving economic assets. It also includes vocational and training on livelihood generation. Economic assets help lessen the vulnerability of a community brought about by the disaster. As observed, low-income families are the most vulnerable to disasters and are disproportionately affected by disasters. Their low economic status lessens their capability in reducing the effects of a disaster and prolongs the length of recovery from its

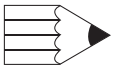
aftermath. Some projects focus on providing intangible assets such as technology in disaster-resistant construction, and access to and warning information centres. Technology enables the community to control the effect if not totally eradicate the impact of disasters on buildings and household assets.

But all of these measures should complement each other in reducing risk. In Bangladesh, the raising of yards or homesteads through earthfill not only safeguards them against flooding but also results in long-term livelihood benefits. The case demonstrates that a CBDM intervention can achieve the co-benefits of disaster risk reduction and long-term development objectives. That is why projects comprising combinations of these interventions increase the likelihood of sustainability. Improvement of the economic status and accumulation of assets resulting from CBDM creates additional developmental opportunities for the community. It also promotes the physical well-being of the community, as well as a community pattern of responsibility, self-reliance and dignity. This synergy creates a strong integration between CBDM and developmental interventions and would greatly enhance the sustainability of CBDM.

[Refer Example : 6](#)



Improvement of the economic status and accumulation of assets resulting from CBDM creates additional developmental opportunities for the community



Self-assessment questionnaire for organizations framing a CBDM strategy:

- How well does your CBDM activity promote accumulation of physical, technological and economic assets to reduce vulnerability?
- What practices and activities do you promote to ensure integration of CBDM projects into regular development planning and budgeting?



Examples : 6

In Bangladesh, the project supports local structural flood proofing measures including making adjustment to structures to keep water out or reduce water entry, e.g., raising homesteads yards of poor families. The raised yards also allow space for cattle\livestock shade, poultry keeping, fodder storing and ensure that possessions remain above flood levels. The other interventions include installation of latrines and tube wells above peak water levels, the construction and renovation of community flood shelters\communal places, village road and small culverts, village markets and river erosion protection measures. The project likewise identifies and supports alternative income generating activities (IGAs) especially those that can continue even during the flood season in order to supplement the income base of poor households

In Cambodia, community based disaster management committees identify local micro-solutions and develop proposals to the agency. The micro-solutions include construction of small culverts, repair of irrigation dykes, latrines and water supply systems in safe areas. While funds are externally generated, the community provides labor and in some cases, provides cash.

In India, under the CBDM project, many micro projects are initiated, such as establishment of Block-level information centres with involvement of corporate sector, setting up of HAM-amateur radio clubs. Funds were also mobilized to raise some areas for evacuation purposes.

In the Philippines, the local government is able to formulate policy leading to the passage of local laws mandating financial contribution of all citizenry of the municipality to local disaster management activities. By integrating disaster management into the overall socio-economic municipal development plans, there is now a regular local disaster reduction fund.

In Indonesia, technology is imparted for a prototype school with earthquake-resistant design. This can be adapted by local authorities and interested donors involved in school retrofitting and reconstruction programmes. Another model for earthquake-resistant housing is built under the project.



CBDM Best Practices	Rating of Practices		
	Regularly	Seldom	Not practiced
Village contingency fund			
Income-generating activities to reduce vulnerability			
Micro-solutions, environmental protection measures, small and medium scale infra-structure project that reduces impact of hazards			
Equipment and materials such as for latrines, water supply, warning communication, rescue and evacuation facilities			
Technology in disaster-resistant construction			

8. Legislation and incorporation of CBDM in development planning and budgeting to ensure sustainability

The results measured in terms of the benefits CBDM provides to the community will determine the level of people’s acceptance of the project. The greater the number of people recognizing the effectiveness of the project, the greater is the probability of its sustainability. But, better results require all the necessary resources needed for the continuation of activities.

This could only be possible if it is part of the regular development plan of the government. Therefore, institutionalization of the CBDM into regular government responsibility is a vital factor in ensuring its sustainability. This reason justifies its incorporation in development planning and regular budgeting process. This process based on the case studies includes the legislation of local laws and ordinances that provide legal basis for institutional support to the implementation of the project.



Institutionalization of the CBDM into regular government responsibility is a vital factor in ensuring its sustainability

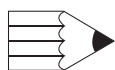
Being part of the development plan would also ensure regular allocation of funds for disaster management at the local level. It also provides direction on the priority projects of government.

It guides the government on the kinds of infrastructures that it will construct, type of economic programmes it will undertake, technology it will acquire, and the kind of aids and assistance it will provide to the community.

Refer Example : 7

Based on this sole example, it is necessary that more experiences be documented on the process of integrating CBDM into regular development plans. In the case of the Philippines, the following factors contribute to its achieving this unique status.

- Disaster clearly impacts local development and economic objectives on regular basis. When Mt. Pinatubo erupted resulting in a dramatic change in the landscape, risk reduction and mobilization of communities are no longer a matter of choice, but of survival.
- Risk assessment processes and public awareness are done face to face with maximum interpersonal contact. This increases the likelihood of commonality in perception of hazards and their potential effects.
- The nationally legislated Local Government Code, essentially a devolution and decentralization act allows for opportunities for



creativity and innovation among local governments. The Code also institutionalizes private sector and community participation in the development planning process

- Dynamic private sector and communities having tired of hand outs and traditional emergency response have recognized the needs and benefits of risk reduction and are willing to contribute actively. They see CBDM as a natural extension of their involvement in local governance.
- Presence of dynamic and innovative local government staffs, acting as “champions” for advocating solutions and incorporating people’s participation.
- External agencies, although with limited roles, provide encouragement and share technology and good practices in CBDM.

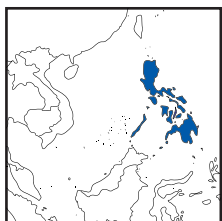
Self-assessment questionnaire for organizations framing a CBDM strategy:

- What actions do your organization need to undertake to promote incorporation of CBDM and risk reduction into regular development planning?



Example : 7

Examples of this practice are rare, except for the case study from Guagua, Pampanga, in the Philippines. By virtue of the Local Government Code of 1991, the members of the locality are given chance to take part in the formulation of the general development plan of the locality. The law also provides the framework for the integration of disaster management into the overall socioeconomic development plan that leads to the regular allotment of funds for disaster management at the community level. This case demonstrated that the combination of laws, humanitarian and economic agendas promote sustainability of people’s participation in disaster reduction.



Tools for Policy Makers





TOOLS FOR POLICYMAKERS

“The goal of a leader is to leave a “legacy” that would improve the lives of people and see them engaged in a cause that counts.”

This document provides a brief that could serve as a guide for policymakers who need to support the application of community-based disaster management. It is established that CBDM as an approach to risk reduction has been successful in targeted communities. However, the magnitude and coverage of its application to date are insignificant as they continue to be only “pockets of excellent practice.” It is believed that to be able to achieve meaningful and substantial impact, CBDM practices must reach out to wider society. This implies that the national authorities involved in policy making could play an important role in enacting policies that will encourage wider applications of CBDM.

In preparing this document, it is recognized that in every country, particularly in the Asian Region; policy-making processes are unique in each political system. Some are more complex or simple than others. Due to this, the document is not prescriptive in details on “how to” but rather it attempts to present in brief what are the most common success factors for sustainable community based disaster management and provides suggestions on key policy agenda.

Policy Agenda to Support Sustainable CBDM

The meaning of policy varies from one institution, structure, and organization to another. A policy is a course of action. It could be defined as what a body ought to do and ought not to do. Inaction or doing nothing about a particular problem or issue could be a policy. But for purposes of discussion, let us

provide some basic characteristics that describe a policy.

Policy is a choice from the alternatives. Colebatch² referred to it as a “concept, which dominates our understanding of the ways we are governed” (1998:1). A policy, therefore, is a decision.

Colebatch identifies three central elements in the ways that the term is used: authority, expertise and order (1998:7)³. These three elements are essential in developing national policies to ensure the sustainability of community-based disaster management efforts. Using the elements cited by Colebatch, let us look at how policies in CBDM can be justified.

First, a particular policy on CBDM must originate from an authority. An authority may be a Minister in charge of disaster management or a National Executive Committee or National Disaster Council. The Minister may have nothing to do with the framing of the policy but it is through his authority that this can cascade down to the implementing agencies.

Second, to give credence to a policy, it must have been designed and crafted by experts. A policy must imply knowledge, both of the problem area and the solution. For instance, a policy on CBDM must be based on the success of several case studies. It must appear as among the most effective from the many alternatives.

Finally, a policy must be grounded on order. A particular policy in CBDM must imply system and consistency. Hence, it must draw various activities into a common framework. For instance, a policy on wider stakeholder participation sets parameters in conducting and organizing participatory assemblies.

2. H.K. Colebatch, (1998), 'Policy', Open University Press, Buckingham,
3. Community level authorities



framework of a disaster management policy? Experiences indicate that good governance requires that the concept of community participation, particularly those who would either benefit from or would be impacted upon by a policy statement should be woven into the framework.

Translating the Factors into Policy Agenda

From the case studies, eight factors have been identified that contribute to the sustainability of CBDM. These factors are described in the Introduction chapter. Here, from these factors, five policy agenda are considered. These policy actions are guides, which can lead to the development and crafting of policies that may ensure sustainable CBDM.

1. Disaster awareness policy programmes must promote self-reliance and self-help within an overall disaster reduction framework

Communities, due to constant exposure to natural and unpreventable hazards, are able to devise ways on dealing with their effects based on the analysis of their own experiences. A “culture of coping with crisis” becomes part of their lives. Disasters, being part of the day-to-day conditions of the locality, will create high levels of awareness among individuals.

Based on conditions, (such as differences in the economic and political structure of a community, public awareness and resources that could be used for mobilization) policymakers in their disaster reduction efforts, should take into consideration the existing indigenous knowledge, the methods and structure of dealing with disaster, and incorporate them into a policy. The policy should be based on, and adjust to, local situations. Although a generic approach to disaster management could

be created, it should be flexible that it could be applied to a particular characteristic of an area. Furthermore, it should be geared towards utilizing local resources. The community is the one expected to implement the policy in CBDM, so the policy should provide the people with specific guidelines to do it. However, policymakers should also conduct evaluation of the effectiveness of the indigenous system and prepare alternatives.

“Many years ago, communities threatened by floods and cyclones in Bangladesh were able to cope using their indigenous knowledge. The intervention of the State however, put the responsibility of disaster management on to government. Our experience however indicates that if we ignore the importance of community coping mechanisms, we cannot achieve sustainable disaster reduction”

For example, policymaking and focus of disaster management in Bangladesh have been evolving over the years. During the early years of its independence, emergency relief and rehabilitation programmes dominated institutional policies and programmes in the country. It is justifiably so, since the country was heavily affected by years of conflicts and the tragic number of deaths during the cyclone in the 1970s. The media had vividly portrayed sufferings and the helplessness of the victims.

Since then, however, the policies and focus shifted to engineering measures to protect settlements from nature’s wrath and most recently, it has evolved into what is referred to as integrated water management. These policies however continued to put central focus on outside help, rather than mobilization of community and people’s ability. However, with case studies such as from CARE Bangladesh showing that indigenous knowledge is critical for peoples’ survival, the attitude of policymakers toward this is changing. A number of NGOs in Bangladesh,

Policymakers in their disaster reduction efforts, should take into consideration the existing indigenous knowledge, the methods and structure of dealing with disaster, and incorporate them into a policy

notably the Bangladesh Disaster Preparedness Center (BDPC) and OXFAM funded NGOs are engaged in systematic study of indigenous knowledge of community. This advocacy is noted by UNDP and DFID and currently, the political leadership of the Ministry of Disaster Management and Relief is convinced to take appropriate policy action to promote self-help and indigenous coping mechanisms of vulnerable community. To complement these policy advocacy actions and promote self help, CARE in cooperation with its network partners called NIRAPAD is continuously engaged in documenting NGO and community actions on disaster reduction. Under the recently approved Comprehensive Disaster Management Programme (CDMP) these practices will be systematically documented to provide further justification for policies supporting community based disaster management.

2. Policy must support risk assessment that incorporate people’s perception on vulnerability and capacity

One lesson learned from the case studies is that the local people’s perception on the assessment of vulnerability during disasters must be given due importance. The people in the community, being the ones living in the hazard-prone areas,

will surely be able to give a realistic analysis and description of their vulnerability.

The case studies were not able to make a common concept of sources of vulnerability. Nevertheless, it was evident in all the case studies that the concept is subject to the conditions present in each of the community. It is apparent that each community has its own definition of sources of vulnerability according to what is available and present in their locality. Therefore, policymakers should consider designating the responsibility of vulnerability and capacity assessment to the community itself. The expertise characterized by knowledge of the problem and the solution to it could not be provided by intellectuals but by the people who actually have first-hand experience in dealing with the disaster.

It should be noted, however, that this ability does not exclude the need for experts’ support for hazard assessment. For example, there had been successful school safety awareness programmes in recognition of the large number of schoolchildren dying from earthquake effects. But recent earthquakes also pointed to a large number of children dying in unsafe houses that collapsed during earthquakes. Communities are generally lacking in expertise in monitoring and analyzing hazards and traditional belief systems and past



Incorporation of people’s perception on vulnerability assessment in disaster risk management policy leads to sustainable CBDM, which will eventually promote self-reliance

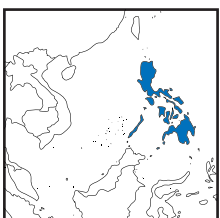


experiences often are the basis for their estimation of hazards. In addition, the complexities of human interaction with the environment that exacerbate hazardous conditions are not given proper attention by the community. Thus a policy statement may support a CBDM approach that incorporate peoples' perception of vulnerability and capacity with experts' knowledge of hazard assessment.

The community can develop their own mechanism to measure the magnitude of their own vulnerability; hence, they will be able to devise structures or methods of mitigating it. The policy should therefore provide enough opportunity for the community to make choices from the alternative based on their own perception. This would not only help the community make the right choices, but also give them the confidence to be self-reliant. Incorporation of people's

perception on vulnerability assessment in disaster risk management policy could thus lead to sustainable CBDM, which will eventually promote self-reliance.

Refer Example : 8



Example : 8

In Metro-Manila, Philippines, proponents of the programme called Metro Manila Earthquake Impact Reduction Study implemented demonstration projects that engage selected vulnerable communities in earthquake risk mapping through participatory means. Under this process, the country's experts in earthquake risk assessment; structural engineers, sociologists, emergency management personnel and local administrators provide technical expertise. The process results in a GIS mapped information incorporating information contributed by the community and the experts. It is intended that policymakers in the Philippines would be encouraged to create policy for wider practice of these processes.



3. A policy must state the importance and guidelines for genuine people’s participation, particularly the most vulnerable

It was proven that the use of participatory approaches in disaster risk management is successful in all case studies. This means that CBDM could be a very effective tool in disaster management and mitigation. Under CBDM, people’s participation is encouraged in analyzing and identifying vulnerabilities, needs and potential resources crucial for mitigating the effects of disasters. Through CBDM and people’s participation, the community’s capacity to handle disaster situations themselves is being strengthened. Therefore, policymakers must ensure people’s participation and continuous community ownership and responsibility for disaster management and preparedness activities. Simply put, the people, being the primary recipients of effects of disasters, should be given a greater role in capacity-building objectives starting from the planning process to implementation.

They should be given enough opportunity to frame actions, set objectives and principles, and create standards for their implementation because they have established their right in setting the direction of the policy.

It is therefore imperative for policymakers to have active discussions with the people. This will provide a way to give the common people a voice, enabling them to express their problems and priorities. This, when used well, can generate important and often surprising insights, which can contribute to policies that are better fitted to their needs.

Genuine people’s participation could be achieved through democratization of the policy-making process and decentralization of its implementation. Democratization will ensure participation from the grassroots in determining goals and choosing the course of action. It will also provide them responsibility and authority in implementing the course of action. In short, it legitimizes their decision and action.

In addition, they should also be involved in evaluating the results and in modifying policy if necessary. Ultimately, this process empowers the people and provides them the capacity to shape their own destiny and directly promotes ownership.

In the Philippines, people and private sector participation is entrenched in the current government policy. This is done

People, being the primary recipients of effects of disasters, should be given a greater role in capacity-building objectives

through the creation of the Multi-sectoral Development Council (currently called Local Development Council upon passage of the Local Government Code of 1991) Under this, the community is well represented in local policy making related to disaster management.

The case of Orissa, India, also points to (albeit only after the cyclone of 1999) the promotion of peoples' participation in disaster management. An effort was made to institutionalize the whole process of managing disasters, leading to the formation of an autonomous organization called the Orissa State Disaster Mitigation Authority (OSDMA). OSDMA is engaged in preparation of District, Block, Gram Panchayat (village level government) and Village level Multi-Hazard Disaster Management Plans, It is also involved in formation and training of various community level Task Forces (e.g. Medical First Aid, Search and Rescue, Sanitation and Shelter Management) to respond to emergency situations. This is in marked contrast from a State level disaster management approach that was dominant prior to 1999.

4. Establish a policy that will promote wider stakeholders' involvement and participation

Policymakers should take into consideration and identify all possible stakeholders in the community. They

should be adept in identifying and mobilizing as many stakeholders as necessary. They should be able to utilize all these stakeholders by ensuring their representation in all stages of policymaking and implementation. The policy made should provide the identified stakeholders in the community the necessary authority and structure for their commitment, involvement and participation, and create a system where the stakeholders could share their expertise for the success of the project

Because the aim is to promote wider stakeholders' participation, policymakers should also take into consideration the culture of the stakeholders, including their relationship with each other and the role that they are going to take. Proper structure should be provided setting the type of relationship to create a nature of accountability and transparency that is important in building trust and confidence. These are important in creating an environment favorable to sustain CBDM.



The policy made should provide stakeholders the necessary authority and structure for their commitment, involvement and participation



5. A policy must promote accumulation of physical, technological and economic assets to reduce vulnerability at the community level, and integration of these projects into regular development planning and budgeting to ensure sustainability

Policy that would ensure the institutionalization of structure and mechanism that will lead to the integration of the projects into regular development planning and budgeting should be created.

Like in the Philippines, an institutionalized framework for participation of the local community in development planning through the Local Government Code was provided. In addition, the local government was able to formulate policy leading to the drafting and passage of local laws or ordinances mandating financial contributions from all citizenry of the municipality. This assures them of regular allotment as part of the development plan, thereby, ensuring the sustainability of the project.

All six case studies have attempted to promote the accumulation of assets that could reduce vulnerability. In Nepal and Indonesia, the importance of human skills and technical competence are given importance and the proponents believe that these capacities will be used

by the people long after the project has phased out. In Nepal, the proponent is now working in many other districts to promote similar approach in partnership with district level officials.

In Bangladesh and in Cambodia, the proponents are actively demonstrating the cost-benefits and effectiveness of community level solutions or by funding micro-projects that will reduce vulnerability. These results are documented and discussed with donors and governments with the intention of possible replication in other communities.

In the Philippines and India, the practice is well advanced since the governments themselves (Orissa State in India and Guagua Municipality in the Philippines) have integrated disaster management into their regular development planning and budgeting, thereby ensuring sustainability.

The five-policy agendas are deemed specific to promoting sustainable CBDM. It should not be ignored that beyond this five-policy agenda, a government must ensure that the fundamental policies for risk reduction are in place. These include:

- Identifying and mandating accountability for risk reduction: Who is the focal organization (“champion”) that is tasked to



The policy must integrate the projects into regular development planning and budgeting to ensure sustainability

- promote sustainable CBDM?
- Good governance and transparency: Participation in any society is institutionalized when government practices good governance and decision-making process are democratic and transparent.
- Enforcement of policy: While there are abundant means for positive motivation, a policy shall consider “penalties” or disincentives that promote a culture of safety and risk reduction.
- Mandating technical agencies and national, sub-national agencies. Roles and responsibilities of these agencies shall also be written into the policy document. CBDM, clearly is not just a bottom up approach, but in fact promotes better balance with a top down approach. Policy therefore should be clear in the institutional relationships, accountability and monitoring mechanisms.
- Linkages of disaster reduction to development goals. The most emphatic argument for disaster reduction would be the economic losses that maybe prevented if these actions are undertaken. A policy statement must encourage the promotion of co-benefits of disaster reduction and development programmes. The other side of the coin is that a policy must promote vulnerability reduction as an objective for development and/or poverty reduction.

[Refer Example : 9](#)

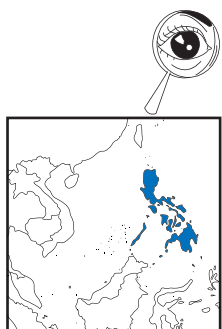
Summary

The role of policy to legitimize CBDM initiatives cannot be overemphasized. It is a must that all action and initiative of the CBDM be supported by policy. It will provide them legitimacy and recognition from the community as well as the necessary framework on how CBDM will be implemented in the locality. Ensuring these things in CBDM increases the chances of prolonging the life span of a particular CBDM activity. Ultimately, policy will provide the most favorable environment for sustainability of CBDM.

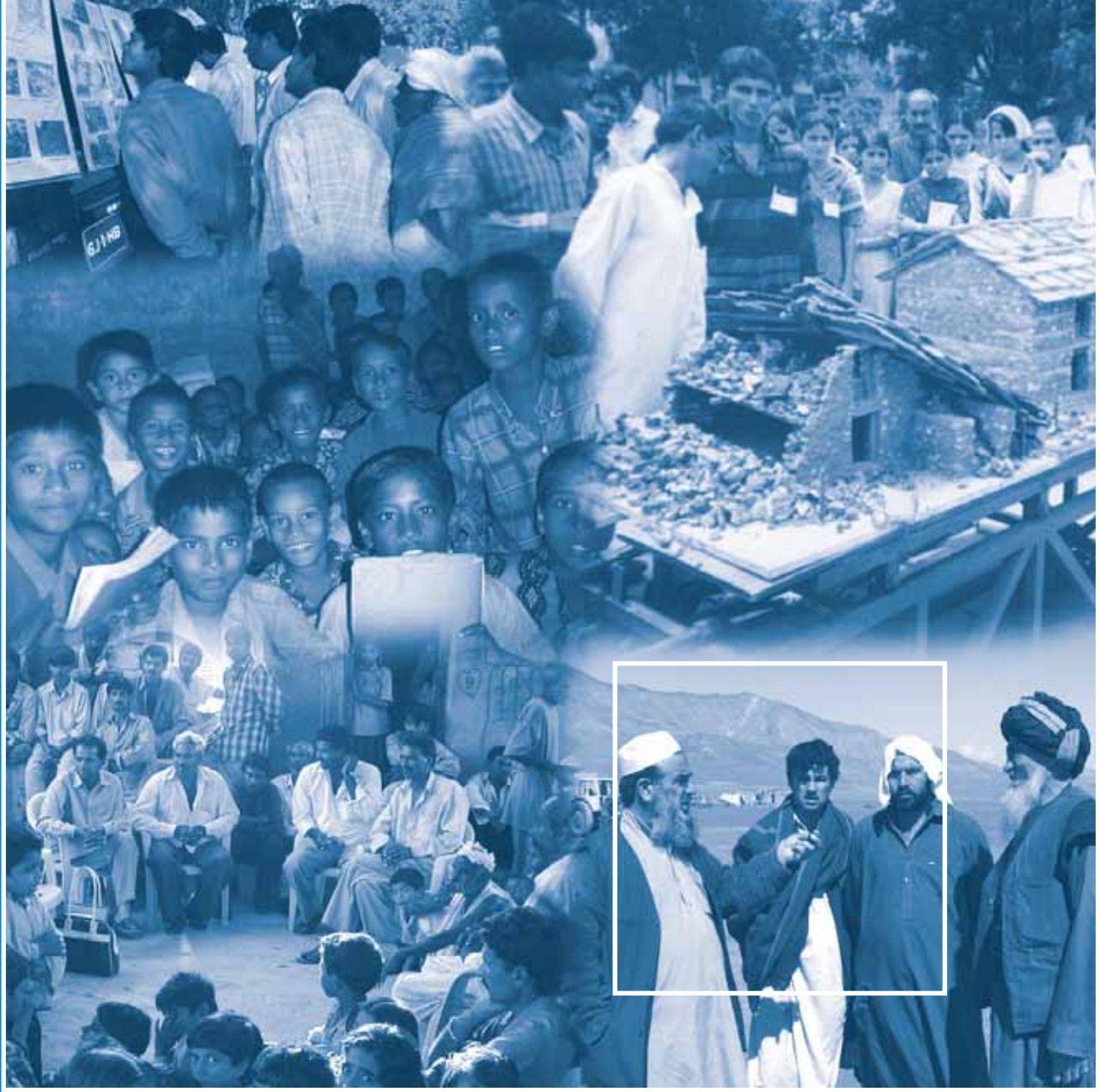
“But the most common image of the policy collectivity has that of the community. This suggests intimacy and trust: policy is made among people who know and trust one another. This does not mean that there cannot (as in any other community) be ignorance, misunderstanding and conflict. But it is an image which stresses the extent to which stable collective action is linked to mutual understanding: there needs to be some mutual understanding to have any collective action, and the practice of working together reinforces this understanding.”

Example : 9

In Guagua, Pampanga, annual flooding had become worse following the Mt. Pinatubo eruption. Due to clogged drainage and almost total change of landscape, the commercial and agricultural areas could be inundated on an average of 3 months per year and an estimated direct loss of 125 million pesos per year. After risk reduction programmes are implemented with active engagement of community members, annual flooding is reduced to an average of 3 weeks. The local government unit calculates that losses due to annual flooding are estimated to be down to 3.24 million pesos.



■ Tools for National Disaster Managers



TOOLS FOR NATIONAL DISASTER MANAGERS

“ Want of foresight, unwillingness to act when action would be simple and effective, lack of clear thinking, confusion of counsel until the emergency comes, until self preservation strikes its jarring gong--these are the features which constitute the endless repetition of history.”

Winston Churchill, In the years leading to 1939

Depending on the government system, the national disaster management organization (NDMO) in the Asian region may vary from one country to another. In many countries, this role is performed by a Ministry which serves as a focal point for coordinating other different ministries and national stakeholders. In several countries, a special department is created under the highest political body, i.e. the Prime Minister or the President who exercises the leadership role.

This document is written as a reference for experts and senior administrators of these NDMOs who may consider supporting efforts to sustain the community based disaster management approach. It is recognized that the unique political culture of each country will have influence on the processes that an NDMO may undertake to support sustainable CBDM. In addition, in the absence of a national policy to support sustainable CBDM, an NDMO may be constrained to limit its acts in accordance with the established mandate. Thus, this document is not elaborate on the specific steps that an NDMO must take. Instead, this may be used as a reference with adaptation to specific conditions of a particular country.

Several practices stated in this document may also be useful references for sector-specific national Ministries or

Departments, for example, the Health, Social Welfare Ministry/Department and others who may be classified as “national disaster managers” in the broad sense. It should be noted however, that this document is rather written for mandated NDMOs or national coordinating councils/committee described earlier.

Disaster Impacts Community

While disasters can strike a whole nation, that impact is felt at the community level although it may hit one or several communities at once. It is these communities that constitute what is referred to as “disaster fronts”. Despite being at the forefronts, communities have the inherent capacity to respond to threats themselves. They are not passive recipients of aid or help; they have, in fact, coping capacity to support themselves. It is for this reason that communities should be involved in managing the risks that may threaten their well-being.

Depending on the field of study, there are a lot of definitions about community but for purposes of discussion and in the context of disaster management, a community, simply put, may be a group of people living in proximity to each other and sharing the same hazards. For instance, the state of Orissa in India, which is facing the Bay of Bengal, is constantly visited by strong tropical cyclones, in the same manner that the Batanes group of islands, the northernmost tip of the Philippines, is constantly threatened by typhoons as it lies along the typhoon path.

The realization, therefore, that virtually all disasters are essentially local in nature confirms that disaster reduction requires community action.

The unique political culture of each country will have influence on the processes that an NDMO may undertake to support sustainable CBDM

It should, however, be noted that there are disasters of exceptional magnitude which would overwhelm the coping capacity of local communities. In these cases, outside agencies including national and international organizations would be required to provide additional assistance to complement and support local capacities.

Practical Tools

The following are practical tools to guide national disaster managers who play important roles in enhancing sustainability of CBDM. These tools are based on the lessons of six case studies of CBDM applications from six Asian developing countries and perhaps the most disaster-prone countries in the region.

It is assumed in this document that an NDMO may play two interrelated roles. First, to develop and implement strategies that it can perform that can promote sustainable CBDM. Second, to act as an advocate and as a catalyst for other stakeholders' actions that may promote sustainable CBDM.

These tools are derived from the nine most common factors identified through the case studies and may serve as reference points that can be adapted in developing national strategies to sustain CBDM efforts.

Tool 1 :

Develop and implement a public awareness strategy that highlights specific local vulnerabilities and capacities these communities may use for disaster reduction

Needs create wants. Generally, people are more likely to get involved if they feel that there is a pressing need. In the same manner, a community becomes involved if it feels that there is a need to address a specific problem. Hence, the perception that a particular community is vulnerable to a specific kind of hazard, tropical cyclones in India and the Philippines or flooding in Bangladesh or Cambodia, can increase support from the population. It is therefore a good strategy to develop a public information campaign that will tell the people that they are indeed vulnerable. Develop perceptions that their local area is disaster-prone to create a need for effective and sustained disaster reduction strategies.

If a community can be made aware of the threats to themselves as well as the possibility that disasters will happen in the future, they are likely to move and take action. Thus, a good public awareness strategy that underscores a particular community's vulnerability can become a convincing tool for mobilization and action.



The community's access to hazard and early warning information strengthens the community's perception and interests to sustain a CBDM

The community's access to hazard and early warning information strengthens the community's perception and interests to sustain a CBDM.

“Perceptions that a particular area is disaster prone are creating a need for effective and sustained disaster reduction strategies.”

What improvements are necessary to existing public awareness programmes?

In many countries, public awareness materials are developed by public and scientific organizations among hydro meteorological and geological agencies. The basic formula of these materials follows a general presentation of the nature and causes of hazards including scientific explanations of acceptable and universal theories. In similar cases, the information is complemented by advice on “What to do?” promoted by national authorities and dominated by messages of information on actions need to be taken during the crisis impact period.

The International Institute for Disaster Risk Management (IDRM International), which has been involved in numerous sociological surveys on people's disaster risk perception, however, concludes that while the people have a better understanding of hazards, disaster reduction as a theme is still not given the primary importance. These materials while promoting the scientific explanation of hazards are short of messages that recommend what proactive and sustainable measures the households and communities may undertake to reduce future disaster risks. The reality is that most disaster awareness messages compete with many other ongoing and immediate community problems such as poverty, drug addiction, crime, water and sanitation, health deterioration and others. Indeed for national authorities, the campaign is perceived to be critical, but perhaps not at a level that keeps the attention of the public on a daily basis.

It is believed that in developed and developing countries, information on the nature and causes of hazards are generally understood by communities. People would know when the flooding season arrives and the science of cyclone prediction has improved a lot. The media has also brought to public's attention the nature and causes of earthquakes and volcanic eruption. Many countries, including Bangladesh, Viet Nam and the Philippines have incorporated these subjects into regular school curricula.

Yet, this is not sufficient. Public awareness must target messages to reach specific audiences. One message or approach does not fit all. Improved success is likely if messages are linked with communicating human relationship (vulnerability and capacity) to the natural environment. The goal is to motivate people to action. This should mean a focus on vulnerabilities as a contributory factor to their exposure to disaster risk. This also means that people can control their fate if they are able to reduce their vulnerability.

The popular word for this is “empowerment”. The meaning of this word could be too broad, but for CBDM, it means that disaster awareness strategies must promote favorable behavioral changes that allow people to believe that they have control over their fate even with the seemingly overwhelming effects of disasters. Strategies must also promote favorable behavioral changes in terms of people making the right choice of actions that will reduce their vulnerability to future hazards.

National authorities have a unique role in promoting public awareness on the importance of disaster reduction and linking them with vulnerabilities. While “public” implies grass-roots communities, national authorities have in fact various “publics”. These include the political leadership, the technical

The goal is to motivate people to action

and professional agencies, business and commercial groups, planning and development ministries and local governments. All of them have a stake in creating vulnerability and thus are assumed to contribute to vulnerability reduction.

**Checklist for National Authorities:
W's and H's of Public Awareness**

Who?

Who are you trying to benefit from the programme? Sociological survey on risk perception of communities provides important information.

What?

What do you want them to know and do as a consequence of your programme? Clarity in stating behavioral change is important.

Why?

Why do they need to know? The perceived benefits to specific audiences must be properly communicated.

When?

When is the best timing to put the message out? There is the proverbial window of opportunity when the interest and attention of target audience(s) are in good timing.

Where?

Where do we present our messages? The types of materials and distribution

scheme must be planned in accordance with the needs of target audience(s).

How?

How do we present our messages more effectively? The nature of media that will best appeal to target audience(s) must be properly selected.

How can public awareness be improved? Authorities must establish a monitoring and evaluation mechanism, to identify effectiveness and/or deficiencies of public awareness strategies.

Tool 2 :

Integrate local perceptions of vulnerability and capacity into broader risk assessment

The involvement of the local population in disaster reduction spells either the success or the failure of any initiative because people living in disaster-prone areas have their own idea of the extent of their vulnerabilities. Based on local perceptions based on informed awareness of hazards, vulnerabilities and capacities, communities can make choices on options available to them rather than be dictated upon by outsiders, donors or “experts”. Their choice with adequate external help proves to be most successful. Thus, in Bangladesh for example, the engagement of vulnerable communities in flood-proofing measures through CBDM that incorporate local perceptions achieved significant results



Communities choice with adequate external help proves to be most successful



in reducing disaster losses. The case study showed that protecting their household assets had reduced losses to as much as 75%. “Savings” were then reinvested in home improvements, improved nutrition and health care.

In the six case studies, local perceptions on risk assessment were, however, not given enough importance by policymakers and authorities. Authorities and policymakers are almost invariably remote and far removed from the realities facing people who are vulnerable to disasters. They often rely on scientific agencies on risk estimation and historical trends in defining priorities and budgets for disaster reduction. Their decisions based on these have a strong impact on the very local and individual level. Without due understanding of vulnerabilities, the decisions and actions are not likely to achieve high success.

Recognizing these inadequacies, NDMOs may consider supporting the following practices to improve on current risk assessment processes:

1. Determine the historical and strategic context of risk: The growth of vulnerability and changing patterns of risk

Success in early warning and public awareness in Asia, including the Philippines and Bangladesh resulted in reducing deaths due to cyclones. On the other hand, flooding and drought are destroying more livelihoods than they did 20 years ago. Due to economic difficulties and poverty, people’s vulnerability to disasters is clearly increasing. Increasing numbers of poor farmers have no option but to live and work on land they know to be unstable, despite the obvious risks. A similar cycle of poverty leading to a disaster risk is evident in urban slums, which are frequently located on steep hillsides, where landslides become an increasingly common hazard.

National and local trends of vulnerability can be analyzed through CBDM processes since the information needed is often unique to specific localities. The availability of Geographic Information Systems (GIS) and other information technologies can be used to store and analyze information gathered from CBDM supported vulnerability and capacity assessment as part of an overall risk assessment.

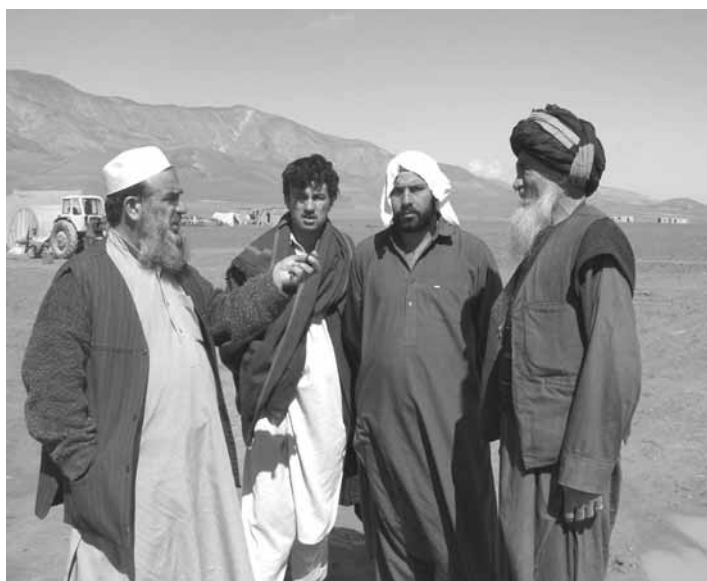
2. Research and analyze local perceptions and adaptation to disaster risks as a basis for a disaster reduction strategy

Clearly in many cases, people adapt to hazards within their own means and in such extreme events, national and local authorities, including NGOs, are expected to provide relief and rehabilitation assistance. If this is so, why then should national authorities bother in incorporating this information into assessments and disaster reduction programming?

IDRM’s experiences in many countries indicate that in spite of the variety of indigenous ways to adapt to hazards, local communities seemed to attach minimal importance to severe or exceptional hazards that they may face in the future. In a recent research study conducted by IDRM on earthquake risk perception among highly earthquake-prone communities, earthquakes are not even in their top ten problems from a long list of risks that include epidemics, crime and fire

Due to this, national authorities, must not assume that vulnerable communities without a process such as a CBDM would take appropriate disaster reduction measures. Authorities, therefore, will find it beneficial to incorporate local perception into risk assessment, with the understanding that an empowering knowledge transfer is also necessary to be implemented through a CBDM process.

Due to economic difficulties and poverty, people’s vulnerability to disasters is clearly increasing



This can be achieved through various means. One of the most popular CBDM methods is participatory risk mapping incorporating local knowledge in the analysis. In the Asian region, an increasing number of NGOs and academic institutions are using “a box of tools for participation” under CBDM. The case studies show that these tools when used appropriately have produced information that communities have found useful for identifying local solutions and risk reduction projects. Recently in Bangladesh, the Ministry of Disaster Management and Relief has taken this concept further and a strategy is agreed where the government would shift its relief assistance focus to

supporting these local risk reduction projects.

[Refer Example : 10](#)

Tool 3 :
Set specific implementing guidelines for genuine people participation in disaster reduction strategies and programmes

Central to CBDM is the concept of participation. Hence, participation of the local population in CBDM cannot be overemphasized. The community must be actively involved in all the aspects and processes of disaster management. By doing so, a sense of ownership is developed among community members.

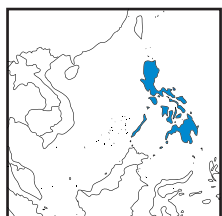


Example : 10

Institutionalizing community participation in Guagua, Pampanga, Philippines

The community based disaster management activities in the Municipality of Guagua, Pampanga in the Philippines was successful because it was able to formalize and institutionalize community participation in disaster management planning and implementation. For instance, a group called BIONIC (Barangay Information Organizing and Networking Cadres) was organized in Guagua, Pampanga. The BIONIC is an information gathering, dissemination and citizenry-mobilizing network at the barangay (village) level. Among the members of BIONIC are village leaders and citizen volunteers. More importantly, BIONIC serves as a conduit to mobilize the active participation of village people in disaster mitigation activities.

“Based on local perceptions, they can make choices on options available to them rather than be dictated to by outsiders’, donors’ or experts’ perspectives.”



Ownership in CBDM activities is essential because it increases the likelihood that the community will sustain and be responsible for the implementation of the project.

In the case of Bangladesh, the project uses Participatory and Learning Action (PLA) methodology as an initial process of community mobilization. Application of PLA encourages the community's participation in analyzing and identifying the flood vulnerabilities, needs and potential resources crucial for mitigating the adverse effects of flood. Moreover, PLA strengthens the communities' capacity for managing the entire project by themselves.

Genuine people's participation must then be harnessed through a set of standards or guidelines. However, participation should not be an end in itself. Rather, it should be viewed as a process that is geared towards the ultimate objective of building and strengthening community capacities.

Essentials of Leadership to Strengthen Others (Kouzes, Pousner 2002)

- Ensure self help
- Provide choice
- Develop competence and confidence
- Foster accountability

One of the most popular participatory methods is the Vulnerability and

Capacity Assessment or VCA. It was originally developed by Mary Anderson and Peter Woodrow based on case studies from Asian countries. Recently, the IFRC has adopted these guidelines for institutional and widespread use among National Societies. Similarly, donors such as UNDP and notably the European Commission Humanitarian Office (ECHO) use VCA for programming activities in disaster reduction and post-disaster response. These organizations recognize that effective risk reduction strategies will be developed with the participation of people at risk and have incorporated their perception of risk, coping capacities and critical needs.

Given the appropriateness and universal application of VCA, the national authorities are also encouraged to use this to ensure that its programmes both strengthen and empower people at the community level, and are effectively linked to national and local disaster reduction plans. Disaster reduction strategies must also be based upon relevant and reliable information. Since coping strategies of vulnerable people are as ever changing as risk itself, they must be regularly monitored, assessed and amended through the VCA tool. The six case studies also indicate that the success or lessons learned clearly depend on the effectiveness of methods for genuine community participation.



Effective risk reduction strategies can be developed with the participation of people at risk

**Tool 4 :
Ensure wider stakeholder involvement through regular consultations and providing opportunity for networking and collaboration**

As important as participation is the idea of partnership and networking, that is, ensuring partnership between and among all the stakeholders. Almost all the projects in the case study have very broad and meaningful stakeholder participation. The stakeholders include national government representatives, local officials, red cross/red crescent societies, NGOs, volunteers, business sector, research groups, technical resource groups, international organizations and vulnerable groups such as women and children, informal settlers and indigenous people. This long list suggests that for a CBDM project to be successful, support must be given to organizers who should be in-charge of mobilizing as many stakeholders as necessary.

In India, participation is institutionalized through the establishment of Gram Panchayat Disaster Management Committees. These committees are comprised of the local leaders, ward members and other people’s representatives, villager leaders, a teacher and two volunteers. This committee is expected to play the lead role during any emergency situation. These partnerships may be formal or informal. Informal partnerships may be as effective as formal ones, however, experience shows that formal institutional arrangements among stakeholders improve accountability and transparency, which is important to sustain CBDM.

Many national government organizations, however, are uncomfortable with stakeholders’ mobilization. This could be traced from the history of evolution of disaster management. In the beginning, national response evolved from armed forces’

readiness to protect citizens and ensure safety resulting in the establishment of national and local civil defense organizations. On the other hand, the Red Cross movement took “independence and neutrality” as core values. While unintentional, the genesis of these pioneering organizations prohibits a culture of open cooperation with other stakeholders.

Inevitably, a community-based approach would require that agencies take on a stakeholders’ approach, to ensure sustainability. National authorities could not fulfill all the needs for capacity building and vulnerability reduction. Noting too that disaster reduction should be tied up with sustainable development and poverty alleviation projects, different stakeholders thus would be required to enhance success and sustainability.

An important challenge is that stakeholders may find disaster reduction a remote concept that they think they should not be involved with. However, national authorities may emphasize that in addressing life and safety issues during calamities and in reducing impacts of future disasters, the wider ramifications contribute to common goals of sustainable development. Based on the case studies, the following roles may be promoted by national authorities.

**Tool 5 :
Integration of disaster reduction activities into normal practice of good governance and into the regular planning and budgeting processes**

National government has a duty to protect its citizens’ lives and property and in promoting sustainable communities. Few would disagree with this statement, but how effective are governments performing this important duty?

There are a number of experiences cited in the case studies that indicate that

A community-based approach would require that agencies take on a stakeholders’ approach, to ensure sustainability

CBDM was started due to inadequacies in the disaster management system and in development planning. In Bangladesh, the choice of communities in the “char”⁴ areas by CARE was due to the fact that they are marginalized from regular development programmes. In Orissa, India, the tragic cyclone of 1999 and generally perceived failure of disaster preparedness and response resulted in a more massive CBDM application in the heavily affected areas.

The rationale for the case studies is to advocate for sustainable communities by integrating disaster reduction activities in the regular planning and budgeting processes. It is believed that national governments have the power, resources or access to resources to take on this important duty. Resources are essential to sustain CBDM efforts. A lot of CBDM projects would not survive the challenge of sustainability because it failed to address the issue of resources. The case studies, however warn disaster managers that CBDM must not fall into the trap of being dependent on any outside organization such as the national government, international humanitarian organizations, among others. CBDM must be able to stand up on its own after aid givers have left the disaster stricken area.

Tool 6 :

NDMOs are “champions” who should play catalyst and advocacy roles for reforms and improvement that are necessary to promote sustainable CBDM

National disaster management authorities are encouraged to act as catalyst to promote sustainable communities through support for CBDM approaches. These could be achieved through the following initiatives:]

1. Advocate for a clear national statement of political commitment to CBDM. It is naturally a statement from the political leadership, but these may not be achieved without efforts for consultation that national disaster management authorities could manage. The statement must cite responsibility and accountability. It should contain the basis for legislation and regulations and it should outline the organizational structures and systems.
2. Facilitate discussion and approval of legislation that promotes CBDM. The need for this is determined by the degree of risks and the importance put on community involvement and sustainability. Most countries currently have existing disaster legislation or in the form of Disaster Management Act.



4. Newly accreted land in rivers.

However, most were developed many years ago and would not necessarily reflect a greater emphasis on community involvement in disaster management.

3. Support and monitor enforcement of legislations including building codes and compliance with disaster management planning and procedures.
4. Strengthen capacity of National Disaster Management Organizations (NDMO) to promote and support CBDM locally. Many existing NDMOs are response oriented or have highly technical capacity and lack the skills needed for CBDM. A retooling of skills and programmes may be necessary to adapt to the changing demands of achieving sustainable communities.
5. Strengthen and support local disaster reduction planning of local or sub national authorities. This process must incorporate in accordance with a policy statement, the involvement of community residents and sectoral stakeholders. Whenever necessary, disaster reduction planning may encompass a number of districts or towns that face similar hazards.
6. Provide encouragement, financial and technical support to local training centers, NGOs who would act as local change agents for CBDM activities.
7. Promote the development of integrated plans incorporating disaster reduction into development

planning. NDMOs could promote understanding of disaster risks as they relate with development planning. For instance earthquake risks are clearly important to be considered in normal urban development planning in seismically active regions. The impacts of climate change is also to be considered in climate sensitive development sectors such as public health, food, and agriculture and water resource management. The manifestation of this integration could be seen in the allocation of regular budgets that promote sustainable communities through CBDM in these sectors.

8. Wherever it is mandated and practiced, implementation of decentralization policy should be extended to CBDM practice. Promote practices that include participation of the most vulnerable including women, children, ethnic minorities and other sectoral groups at risk to disasters.
9. Participate actively in networking activities and knowledge capitalization, within a country, especially in larger territories or within the region that share trans boundary problems.
10. Improve its information-communication-technology competency enabling better efficiency and speed in exchange of information for disaster reduction.

[Refer Example : 11](#)

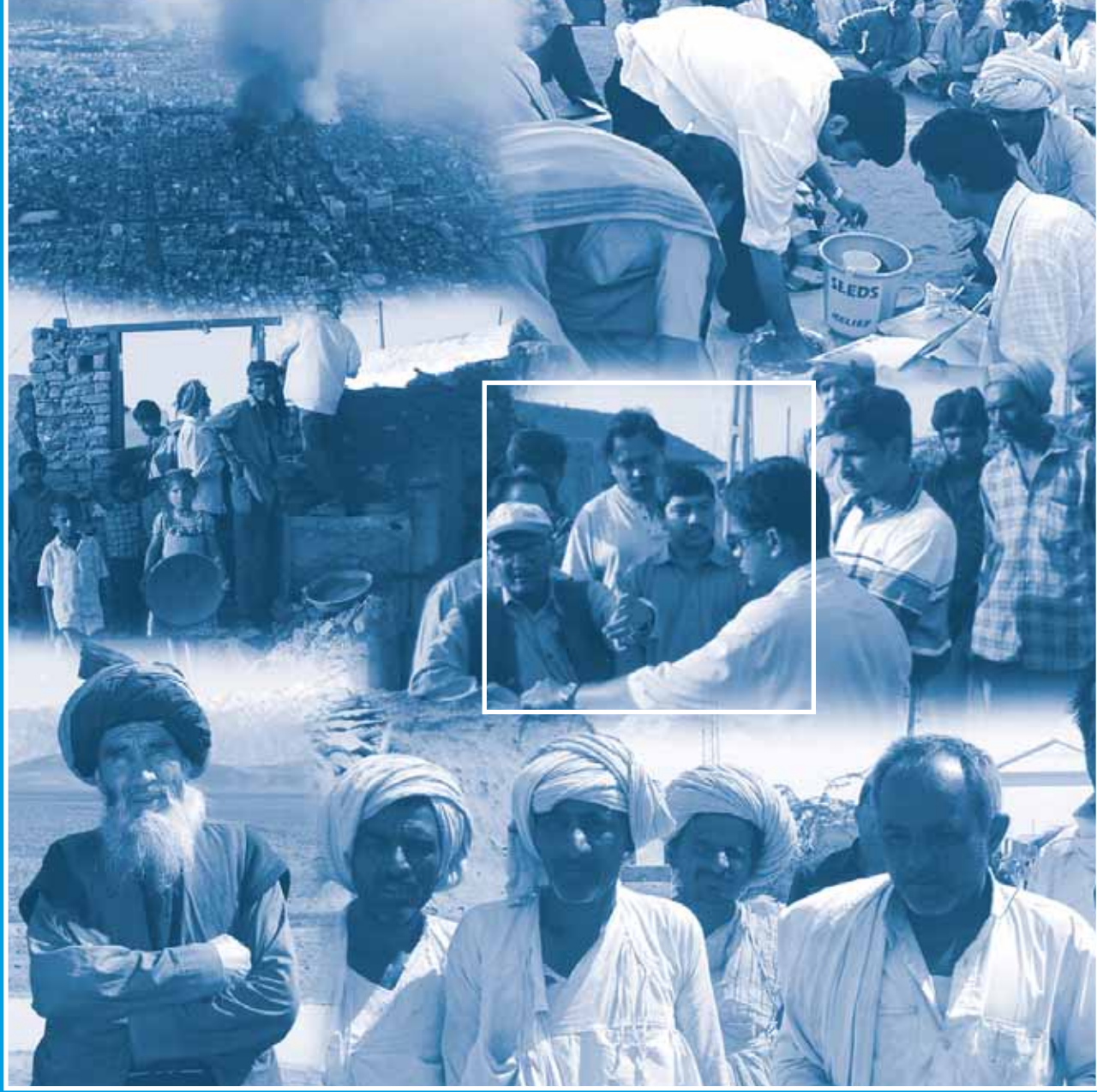


Example : 11

Recently in India, the High Powered Committee on Disaster Management recommended that 10% of development funds should be spent on disaster mitigation. Likewise in Bangladesh, the Ministry of Disaster Management and Relief has taken a significant step in creating a policy that shifted the purpose of the use of the permanent relief fund. Starting in 2004, the fund will be used for community based risk reduction programmes veering away from mere distribution of food. Even in a relief distribution context, such as in the case of South Africa, disaster reduction can be achieved. In Suurbraak community, social relief is used as incentives to households who construct “weather proofed” houses.



■ Tools for Local Disaster Managers



TOOLS FOR LOCAL DISASTER MANAGERS

The paradox of power: we become most powerful when we give our own power away.”

(The Leadership Challenge, Kouzes, Posner, 2002)

The Local Government Units (LGUs) have a focal role in disaster management. As a subsidiary to national authorities, LGUs facilitate and manage the delivery of vital services that benefit communities. Second, as representatives of local residents, they act as advocate, resource mobilizers, connector and networker between local constituents and “outsiders”. Finally, they provide the local leadership that influences community agenda, decision-making, problem-solving, consensus-building, allocation of resources and conflict resolution.

In support of these roles, this document is developed for organizations working at the local level, generally referred to as provinces, districts, cities or municipalities. It is recognized that the government system is unique from one country to another and this results in diversity among local disaster management systems. In some countries, local organizations are extensions of national disaster management committees with membership that mirrors the structure at the national level. In many of these cases, particularly in developing countries with competition over scarce resource, there are no permanent staff involved in disaster management and mobilization of memberships routinely occurs during the crisis stage. In rare cases, where disaster

management is given priority attention, a permanent local disaster management organization (LDMO) is formed. In the Philippines for example, due to regular eruption of Mt. Mayon Volcano and the frequent occurrences of tropical cyclones, the province of Albay in the Bicol Region has a permanent Provincial Disaster Management Office.

Several practices stated in this document may also be useful references for sector may be specific local departments, for example, the Health, Social Welfare Department and others who maybe classified as “local disaster managers” in the broad sense. It should be noted, however that, this document is written rather for mandated LDMOs or local coordinating councils/committee described earlier.

Community in Local Disaster Management

The potential of using the community for development efforts has been greatly explored. There are many definitions about community. For instance, community, according Hess and Adams¹, is a “group of people, who create relations based on trust and mutuality, within the idea of shared responsibility for well-being.” The key phrase in this definition is the idea of shared responsibility for well being. Shared responsibility connotes collective action towards achieving a certain goal or solving a particular problem. The definition is useful and due to its broad coverage indicates that a community at the local level includes everybody who has a stake in sharing responsibility for disaster reduction.

1. M. Hess, and D. Adams, 2001. ‘Community in Public Policy: Fad or Foundation?’, Australian Journal of Public Administration, 60(2): 13-23.



This is not therefore limited to “poor and vulnerable households” that are “victimized” by disasters. They are also not only those that are referred to as “grass-roots communities” generally to mean those who should be primary “beneficiaries” of regular development processes.

“Shared responsibility connotes collective action towards achieving a certain goal or solving a particular problem.”

“Communities must be given the capacity to address the risks that may threaten their well-being.”

Although most CBDM projects have preferential bias for the poor and most vulnerable, experiences from the case studies state that a community of people is more extensive and inclusive than these groups. Community includes the local political leadership, extension

workers, teachers, local religious and other informal leaders, mass organizations, sectoral groups, at risk-women, children, youth, ethnic groupings, NGOs, local academicians, local police, uniformed services and health workers. The extent of membership varies in accordance with the CBDM goals and

In times of crisis, these are the primary actors in coping with the responsibilities. The recognition of this situation gave rise to the practice of a community based disaster management approach (CBDM). The lessons from the experience with the Great Hanshin-Awaji Earthquake and the Philippines bring to fore the realization of the role of the people and the need to strengthen the community so that they can further support themselves during disasters. Veering away from the traditional perspectives, communities should be seen as an important resource for coping



Communities must be given the capacity to address the risks that may threaten their well-being

Example : 12

The experience of the 1995 Great Hanshin-Awaji Earthquake in the city of Kobe in Japan revealed that about 85% of the people who survived were either self-evacuated or were rescued by neighbors. In other words, most of the people of Kobe survived the earthquake not because of assistance from formal emergency services but due to self help mechanisms among members of household and neighborhood.

In the Philippines, only weeks after setting up emergency response teams, a community organization in a village rescued 31 families from rising floodwaters.



and hence must not be viewed as the passive recipient of aid. They must be given the capacity to address the risks that may threaten their well being.

[Refer Example : 12](#)

Practical Tools

Local Disaster Management Organizations, as established earlier, play unique role in disaster management and is a critical actor for enhancing sustainable CBDM. Based on the factors for sustainability of CBDM (See Introduction and Generic guidelines for details), a local disaster management organization may implement action using the following tools as a guide.

Tool 1:

Identify, support and enhance indigenous coping mechanisms. People's perception of vulnerability and coping capacity must be incorporated into local risk assessment

What is perceived to be a necessity may not be a priority of the community. A common mistake committed by a lot of experts, donors and aid givers including the government is what is referred to in academic circles as the “ivory tower complex.” In other words, it is like looking at a problem from a lofty perch and developing solutions without really

experiencing and understanding what is happening at the level of the community. The result is often a solution that is not acceptable to the recipient or one that is not cost-effective.

The “ivory tower complex” often puts on the sidelines the most important aspect: The people and their needs. The experts and authorities make all the decisions on what kind of aid to give, how to give them, and to whom to give. They manage everything that they tend to underestimate the capacity of the people to whom the assistance is given. In focusing too much on what these experts think is best, the vulnerabilities and coping capacities are ignored in the process.

It is important to give recognition to the fact that the local people know about their locality and history. An interaction with a particular community could reveal a wealth of ideas routinely ignored by “outsiders”. Their involvement and active participation in identifying the problems and subsequently the solutions promote ownership. It is widely believed that when the people feel some kind of ownership, they tend to be involved so long as the project is beneficial to them. Thus, with the right choices made, the sustainability of CBDM is likely to improve.

Community involvement and active participation in identifying the problems and subsequently the solutions promote ownership

Indigenous coping mechanisms include actions by communities and people's ability to prepare for, withstand and/or respond to a hazard. Often, tragic scenes of helplessness are sought and vividly portrayed by the media which cover disasters and who intentionally ignore the resilience of survivors. Thus, they are inevitably "buried" and unrecognized. The case studies showed that many indigenous coping mechanisms exist and the role of an external and local organization is to recognize and support these. This way, the likelihood that people will implement actions is very high, as they would normally believe in the success of these indigenous actions.

In Nepal and Indonesia, however, due perhaps to economic pressure, promotion of "modern" construction techniques and commercial sector interests, the traditional construction methods are diminishing. Many believed that this traditional craftsmanship would routinely consider earthquake risks, and stronger materials were then properly selected. Thus, they were able to resist earthquake effects. These traditional practices were cited in the two case studies as significantly decreasing and as in the case of Kathmandu Valley, in Nepal, the lack of enforcement of building codes, further promotes vulnerability of houses and buildings to major earthquakes.

The case of Cambodia cites the ability of people to tap forest resources for food and subsistence livelihood during flood seasons when their main staple crop, i.e. paddy rice is threatened or destroyed. Sadly though the commercialization of forest industry prohibits easy access of families who would normally rely on these during periods of food insecurity.

An interesting flipside to the community's use of coping mechanisms is the way they see disaster risks as a consequence of hazards and vulnerabilities. While hazards such as those caused by a natural phenomenon could not be controlled, people expressed the likelihood of controlling their fate if they do something about reducing their vulnerabilities. The case studies cite the importance of people's assessment of their vulnerabilities in relation to hazards as contributory to their involvement and ownership of CBDM programs. People's involvement in vulnerability assessment, therefore, is a very effective and useful practice to promote sustainable communities.



People's involvement in vulnerability assessment, is very effective and useful practice to promote sustainable communities



Good Practices :

1. People's ownership and self-motivation is essential to ensure sustainability. People must be involved in all the phases of CBDM project management to encourage accountability and responsibility over the project. This enhances their confidence and feeling of self-control over their fate.
2. Highlight any kind of coping culture that the community has used from generation to generation. Support these indigenous and self-help mechanisms. Facilitate adoption of new knowledge or technology that complements traditional practice.
3. The role of an outsider is more to "facilitate" and less on "to manage" and/or "to teach". Local knowledge and enhancing this is the entry and goal of CBDM.
4. Identify and discontinue local authority practices in disaster management that create peoples' dependency.
5. Conduct risk assessment incorporating people's perception of local vulnerabilities and capacities with experts' assessment
Facilitate adoption of new knowledge or technology that complements traditional practice.
3. The role of an outsider is more to "facilitate" and less on "to manage" and/or "to teach". Local knowledge

and enhancing this is the entry and goal of CBDM.

4. Identify and discontinue local authority practices in disaster management that create peoples' dependency.
5. Conduct risk assessment incorporating people's perception of local vulnerabilities and capacities with experts' assessment

Tool 2 :

Implement practices for people's participation, particularly those who are most vulnerable, to enhance their competence and capacity

CBDM is distinctive in that it emphasizes community-learning processes. This, according to some critics, is one disadvantage of CBDM. Critics believe that the whole process involved in CBDM takes time and is, therefore, tedious and cumbersome. However, these processes are important because they ensure sustainability. Among the more important aspects, if not the most, is the process of consultation and participation.

The local community should be encouraged to involve themselves in all aspects of disaster management. The community must be involved from the pre-disaster phase like preparedness or in the development of contingency plans to the actual relief operations through local volunteer rescue teams.



The goal of the CBDM is to build upon the community's capability to manage disasters themselves



Participation should not be viewed, however, as a means to an end. Rather, it should be a tool to achieve the ultimate goal of empowerment. Ultimately, the goal of the CBDM is to build upon the community's capability to manage disasters themselves.

Essentials of Leadership to Strengthen Others (Kouzes, Posner 2002)

- Ensure self-help
- Provide choice
- Develop competence and confidence
- Foster accountability

It is, therefore, necessary to implement practices that ensure genuine people's participation. CBDM implementers should be able to develop strategies that would ensure that the voices of those

who are most vulnerable are heard and given importance. As in the case of Bangladesh, the aspect of sustainability was evident in its Local Project Society (LPS) members, which was formed to execute the community's decisions and plans for flood-proof projects. As seen in the results of the study, LPS members felt a change in their status in the community as they were given more respect and often invited to provide technical support or advice on various issues.

[Refer Example : 13](#)

Example : 13

The LPS of Bangladesh, a forum for participation

In each community in Bangladesh, a committee was formed to execute decisions and implement plans for flood mitigation. The committee was named the Local Project Society (LPS). Its essential function is to disseminate early warnings and establish systems for evacuation. It is also tasked to implement flood-proofing interventions to its community. Also included in each society's functions are to arrange training for its members, as well as linkages with other development agencies and local governments.

CBDM should develop strategies that would ensure that the voices of those who are most vulnerable are heard and given importance

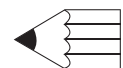
Following is a list of participatory methods and their application to engage community’s participation in disaster reduction. There is, however, a large number of methods that one can use depending on the necessity for its application.

Participatory Method	CBDM Application
Transect walk/Community Watching Risk and Resources Mapping	Identify hazards vulnerability locations
History and Seasonal Calendar	Likely natural disasters, frequency and Occurrences: When to prepare
Focus Group Discussion and Brain storming	Learning and faster ownership of planning by community
Wealth Ranking Ten Seeds	Identify poorest and most vulnerable people Ranking and decision making
Venn Diagram	Identify important stakeholders for planning coordination and responsibilities
Simulation Exercise	To test validity of plan and readiness of people to perform their responsibilities

Good Practices :

1. Participatory processes may be cumbersome but it is essential to CBDM.
2. Apathy is an initial obstacle that one must overcome. Let the people feel that their participation is vital to ensure success of CBDM.
3. Through a guideline, clearly identify key institutions and organizations that should participate from the formulation to the implementation.
4. Outline the roles and responsibilities of all stakeholders to ensure genuine participation.
5. The ultimate goal is to enhance capacities of communities to become self-help groups. This can be achieved through participation.

Self-assessment questionnaire for framing a CBDM strategy:



- How well do your CBDM practices promote genuine participation within the context of capacity building objectives?



Participatory processes may be cumbersome but it is essential to CBDM

CBDM Best Practices	Rating of Practices		
	Regularly	Seldom	Not practiced
Participatory approaches (PRA/PLA) involving communities in hazard, vulnerability, and capacity assessment as basis for community level risk reduction planning			
Formation of informal self-help organization who would represent the community in coordination activities with formal local authorities			
Institutionalizing mechanisms such as formal sectoral groups (ex. rescue teams) with tie-up with local government authorities and are part of the local disaster reduction plan			
Strengthening of process for local disaster action planning and support to mandated local disaster management committees			
Regular public awareness activities targeting all major stakeholders			
Community's active involvement in all phases of the project from planning and monitoring to evaluating			

What improvements, if any, are necessary to improve genuine participation within the context of capacity building objectives?



Tool 3 :
Ensure a wider stakeholder involvement and participation

A stakeholder is anybody or any organization that may be affected by disasters; and/or has a potentially significant role to play in risk reduction or coping with disaster effects in a community. Based on this definition, stakeholders could be numerous, and it is vital to encourage the wide range of stakeholders to get involved in any CBDM project.

Stakeholders may play two roles: One, whether intentionally or not, they may be contributing to the configuration of disaster risk in a community, and two, recognizing that they contribute to disaster risk they are actively involved in risk reduction.

Examples from the first category include, people who throw garbage to drainage and river systems, NGOs who implement primary health care projects to reduce morbidity and mortality but ignore the importance of educating women and children on the basics of flood and/or cyclone warning systems in disaster prone areas. Local authorities who ignore the existence of and movement of informal settlements in dangerous hillsides and river erosion prone areas. Engineers and artisans who ignore building codes as they relate to earthquake and other physical risks and so on.

Naturally, a second category is desirable. For example, a safer community is achieved with school administrators and teachers actively involved in disaster education and school safety programmes, religious groups are promoting awareness of risk and practical measures to reduce these. Local authorities enforce land use planning and building codes. Local private business groups contribute funds and resources for local risk reduction solutions.

There are many examples that can be highlighted, which essentially suggest that risk reduction is everybody's concern. This is contrary to traditional thinking that disaster management is the exclusive responsibility of emergency services, the IFRC, civil defense groups and social welfare agencies.

The task of implementers of CBDM includes facilitating networking and coordination of local stakeholders' participation. This implies that good governance that encourages constituents' involvement is the basic foundation that contributes to sustainable CBDM. Good governance provides a favorable environment for broad stakeholder's participation. Specific roles and responsibilities of a particular stakeholder must be identified based on their understanding of their own value and abilities. In some cases like in the Philippines and India, these relationships among stakeholders are formal and legislated. But informal relationships also proved to be effective and do not necessarily hinder partnership arrangements at the community level. The choice depends on the political structure in a particular locality and the perceived level of governance in the area although experience shows that formal institutional arrangements among stakeholders improve accountability and transparency, which is important for sustainability of CBDM.

Public awareness on disaster reduction is one good practice that may promote easier mobilization of local initiatives and other stakeholders. In this age of speed of media coverage, Internet and advancement of technologies, mobilizing "public" support is greatly enhanced for effective local actions. Networking and promoting knowledge capitalization could also contribute to sustainable CBDM. Clearly, as mentioned earlier, it is crucial at the local level. In addition, supporting agencies should consider resources, including knowledge, information and

Disaster management is not the exclusive responsibility of emergency services, the IFRC, civil defense groups and social welfare agencies, risk reduction is everybody's concern



technologies that are available outside of the locality.

Refer Example : 14

As cited earlier, there are many stakeholders who may be engaged by local governments in CBDM and in disaster reduction. Within the locality itself, they may be identified in relation to their sectors and professional groupings. These may include local government officials, local NGOs, local businessmen, farmers, fisher folk, women's groups, school administrators and teachers, doctors, health workers, volunteer groups, youth, masons, carpenters and other technical professionals. A local disaster reduction plan is likely to be followed by these groups if they have been actively involved in the process and in practice. The experiences in the case studies show that since they are residents of the target

communities and are also at risk, their interest for involvement is very high. Their involvement, therefore, should not be ignored.

For instance, in Nepal and Indonesia, the active involvement of artisans and local school officials are cited to play an important role in sustaining CBDM efforts in targeted areas. In the Philippines, local business groups were in fact the initiators of local solutions to recurring disasters by advocating more effective and sustainable actions by the local government, veering away from the traditional relief actions.

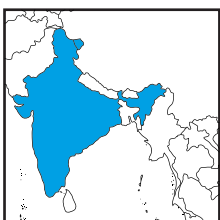
The roles and responsibilities of each stakeholder may be determined through participatory process of risk and resource mapping and disaster management planning. Naturally though, their roles are determined by the



Example : 14

The OSDMA's strategy to ensure sustainability

Due to the massive loss of life and property brought about by a cyclone that hit the state of Orissa in India in 1999, the state changed its focus on disaster preparedness in the region. An autonomous organization called the Orissa State Disaster Mitigation Authority (OSDMA) was formed to institutionalize the entire process of managing disasters. Linkages with many UN agencies, multilateral and bilateral donors and NGOs brought out valuable insights, experiences and financial support to OSDMA. The involvement and commitment of several organizations was one of the key strategies of OSDMA to ensure the sustainability of efforts to prepare the local population for effects of periodic cyclones.



nature of their sector and potential contribution.

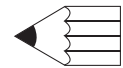
Additionally, as cited in the case studies, the local government is the convergence point for other stakeholders' actions. These relationships may be based on the framework below. While the coordination of these relationships lies with the national governments that have the authority and power, the real work of cooperation must be effectively demonstrated at the local level. The effectiveness of their efforts must be assessed in relation to sustainability of communities rather than the number of meetings that occurred in conference rooms

Self-assessment questionnaire for framing a CBDM strategy:

- Which of the stakeholder/s have limited involvement in the CBDM programme? Why?
- What actions should you take to improve participation of specific stakeholder/s that may enhance and sustain CBDM?

Good Practices :

1. Identify key organizations and institutions that would be involved in CBDM project management
2. The more people involved in planning and implementation of the project, the more supporters
3. Smooth implementation is achievable if all the stakeholders understand and know their respective roles and responsibilities
4. Partnership between the vulnerable and less vulnerable of a particular community creates a balance
5. A coherent local disaster reduction plan incorporating roles and responsibilities, of stakeholders will enhance clarity of execution of activities and sustainable CBDM



Stakeholder roles are determined by the nature of their sector and potential contribution.

Tool 4 :
Create and sustain the “spark” of CBDM: Identify and sustain people’s motivation for local disaster reduction

The disaster management experience of the community of Guagua, Pampanga in the Philippines, is an interesting case in the sense that their current disaster management efforts did not materialize out of a pre-planned and well-funded disaster management programme. There was no clear and comprehensive disaster management framework or model that was used when disaster preparedness and mitigating measures were first advocated and initiated by the community. Rather, the case revealed that the current success of Guagua Municipality was a result of spontaneous evolution that occurred throughout the years as a result of their constant reflection and absorption of the lessons they learned in dealing with the effects of disasters events every year for several consecutive years.

The case traced the origin of the Guagua CBDM to a local business sector lobby in 1988 for more concrete and effective response from the local government to the worsening flooding problem. Their primary objective and motivation was simple – economic and business losses were rising to unacceptable levels and emergency relief assistance did not address the needs. In other words, the success of the Guagua CBDM is a result of a particular sector in the community trying to insulate their businesses from the consequences of annual typhoons and rain induced flooding.

From this experience, one can conclude that motivation plays an essential role in enhancing sustainability of CBDM. As a local disaster manager, one must be aware of the objectives and motivations of the community as a whole or sectors within it such as in the case of the business sector in Guagua, Pampanga. Learn their motivations and make them understand how CBDM projects could address their specific concerns. Upon learning their motivations, they can be

used to sustain efforts for long-term disaster reduction strategies.

The case of Guagua, Pampanga may not be relevant to all local groups. It appears to be more challenging to engage community participation if no disasters have yet happened, less so after a major disaster. The former is the case in the Nepal case study when the CBDM and other efforts are conducted even if there is no major earthquake disaster occurrence in the valley. It is noteworthy however, that success in creating public awareness is seen despite this.

Yet, local governments should take a proactive role in identifying possible motivations for CBDM. From the case studies, some motivations are not very obvious, but sufficient to “spark” a CBDM initiative. These may include:

- As a way to introduce mitigation and preparedness actions following disastrous events (cases of Cambodia, India and Indonesia). People are more interested in participating while the memory of the event and lessons learned are still fresh in their minds.
- As an empowerment and development intervention to address underlying issues of poverty, marginalization and lack of education . CARE Bangladesh saw CBDM as an approach to address both disasters and development problems. People see the relevance of CBDM as they relate to their priority needs for livelihood and access to basic services.
- Engaging people to develop a sense of control over a potential disastrous event, thus reducing their anxiety as in the case of Nepal. People who were aware of the devastating Gujarat, India earthquake and have participated in the CBDM, have reduced their denial over the potential of a major earthquake in the valley. This motivates them to participate.

Motivation plays an essential role in enhancing sustainability of CBDM

- Participation provides a political constituency, promoting local politicians' sensitivity over the need for disaster reduction as advocated by their local constituents (the case of the Philippines). People's participation in CBDM is seen as a natural extension of citizens' involvement in the management affairs of the local government.
- Offer a structured manner for dealing with volunteers as in the case of Cambodia. By participating in the CBDM, people are recognized as informal leaders elevating their social status in the community. Better self-esteem is seen in general among IFRC Volunteers elsewhere.

Good Practices :

1. Know exactly the motivation of the community and use it as an entry and "rallying point" for sustainable CBDM.
2. Make the community understand how CBDM is addressing their concerns, e.g. business losses due to flooding.
3. Identify natural leaders (local champions) in the community who will act as change agents at the community level.
4. CBDM must be able to address concerns without relying too much on outside intervention

Tool 5 : Implement capacity-building processes that promote self-help, unity within the framework of local disaster reduction

Training is an essential component in enhancing sustainability of CBDM. In all of the case studies, it was found that training approaches vary in accordance with the objectives of the project and the needs of the community for training. There was no general approach because the training reflected the need of a specific community.

In Bangladesh, the project arranges extensive training for capacity building of Local Project Society (LPS) members and links the LPS with other development agencies and local government for sustainability of interventions. Meanwhile, in Cambodia, the agency took extra effort to get external expertise to develop, test and finalize a formal CBDM training curriculum.

These cases prove the point that capacity-building measures, although the training approaches varied, is indeed essential. A common element in the cases is that the delivery of training is conducted through established organizations and institutions. The approaches included the engagement of the local university, local committee, formal teachers and established



With the right people and organization committed to the project, the likelihood of a sustained CBDM is high



emergency. The underlying reason for this perhaps is to get these individuals and organizations, who have current responsibilities in implementing project components, committed to the overall objectives of the project. With the right people and organization committed to the project, the likelihood of a sustained CBDM is high.

Refer Example : 15

It is important to emphasize that according to established training principles, training must be well targeted as per the training needs of participants. The six case studies further confirm this principle as the level and nature of training varies from one case to another. In one extreme, the cases of

Nepal and Indonesia show the focus on a more specific technical knowledge transfer, i.e. earthquake resistant construction techniques. On the other hand, in the case of Bangladesh, training is so varied as to include project management, organizational development and so on. Training interventions therefore are done based on appropriate objectives and the local needs assessment.

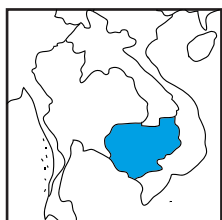
In the Cambodian case however, noting that there is a need to promote CBDM nationwide, training of communities and the development of materials were conducted with the goal of standardizing an approach.



Example : 15

Increasing capacities to deal with natural disasters in Cambodia

Cambodia has been dealing with several disasters caused by floods and drought. Not only were there damages to assets, crops and infrastructure, but losses were also experienced in the social, psychological and economic structure of the country. Hence, despite the economic growth and development from the previous years, they were easily erased by the impact of disasters. To counter the situation, the Cambodian Red Cross (CRC) initiated the implementation of a Community Based Disaster Preparedness Programme (CBDP) in several provinces. From relief and assistance, CRC's focus evolved to rehabilitation, development and capacity-building. In fact, a unit of the CRC primarily involved with food and relief distribution, is now a leader in disaster response particularly with emergency relief assistance and communication. Several workshops have already been instituted by CRC among its key personnel from provincial branches. The primary aim of CRC is to improve the life and capacity of the most vulnerable groups in Cambodia.



This process is described below.

The Cambodian Red Cross (CRC): Training, Resource Materials and Continuing Education

One of the core activities of the CRC was building the capacity of Red Cross Volunteers (RCVs) in disaster management and community organizing through providing a series of intensive training programs. The training modules included.

1. Red Cross Values and Volunteer Responsibilities
2. Disaster Management and Hazard Mapping
3. Leadership and Community Organizing

After the second module on disaster management and hazard mapping, the volunteers return to their communities to conduct a mapping exercise. This was intended to serve as an organizing and mobilizing exercise too. The volunteers used the maps to identify the hazards and vulnerability in the community. In addition, the CRC and the Federation organized brainstorming and planning sessions once or twice a month for the trainers to further assist the RCVs. This was seen as a very beneficial follow up and continuous training strategy, which helped reinforce skills learned during the training courses. During site visits and group meetings, CRC trainers and coordinators assisted communities and the RCVs to develop solutions to mitigate the problems of flooding. An important component of the project was to work through traditional community-based structures. In some cases, the RCVs worked with existing Village Disaster Committees and in other cases, where these committees do not exist, they work with Village Development Committees. Outside of RCVs and the formal village committees, participants also include a wide spectrum of community members including farmers, women, village elders, students and monks. These practices are perceived to enhance sustainability of CBDM.

Good Practices :

1. Capability-building measures should be geared to develop full potential and contribute to the success of CBDM
2. Training should encourage the people to put knowledge gained into practice
3. Training should enhance capacity to respond to and reduce disaster risks
4. Identify and support local institutes where training programmes can be continued and institutionalized



Tool 6 :

Integration of disaster reduction activities in the regular local planning and budgeting processes

Local government under the principle of subsidiary to the central government has a duty to protect its citizen's lives and properties and in promoting sustainable community. Few would disagree with this statement, but how effective are local governments in performing this important duty?

There are a number of experiences cited in the case studies that indicate that CBDM was started due to inadequacies in the disaster management system and in development planning. In Bangladesh, the choice of communities in the "char"⁵ areas by CARE was due to the fact that they are marginalized from regular development programmes. In Orissa, India, the tragic cyclone of 1999 and the generally perceived failure of disaster preparedness and response resulted in a more massive CBDM application in those heavily affected areas.

The rationale for the case studies is to advocate integration of disaster reduction activities in the regular planning and budgeting processes leading sustainable communities. It is believed that governments have the power, resources and access to resources to take on this important duty. Resources are essential to sustain CBDM efforts. A lot of CBDM projects would not survive

5. Newly accreted land in rivers



the challenge of sustainability because it fail to address the issue of resources. The case studies, however, warn disaster managers that CBDM must not fall into the trap of being continuously dependent on any outside organizations such as the government or international humanitarian organizations among others. CBDM must be able to stand up on its own after aid givers have left the disaster-stricken area.

Local authorities are encouraged to act as catalyst to promote sustainable communities through support to CBDM approaches. The case of the Philippines clearly indicates success on these actions. By virtue of the Local Government Code of 1991, the local government of Guagua, Pampanga plays a significant role in overseeing and facilitation of the planning and implementation of small infrastructure projects. This includes the construction of secondary dikes and sandbagging activities on breached river systems. It was also able to integrate disaster management into the overall socio-economic municipal development plans. There is now a regular allocation of funds for disaster management at the community level.

This type of approach to CBDM strengthens the likelihood and sustainability of CBDM projects. The idea is to encourage independence and ultimate sustainability. The case

revealed that this could be done through legislation and by incorporating vulnerability assessment and reduction into regular development projects.

Good Practices :

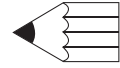
1. Advocate a clear statement of political commitment to CBDM. It is naturally a statement from the political leadership, but these may not be achieved without efforts for consultation that local disaster management authorities could manage. The statement must cite responsibility and accountability. It should contain the basis for legislation and regulations and it should outline the organizational structures and systems.
2. Facilitate discussion and approval of local legislation that promotes CBDM. The need for this is determined by the degree of risk and the importance put on community involvement and sustainability.
3. Strengthen capacity of the Local Disaster Management Organization to promote and support CBDM locally. Many existing LDMOs are response-oriented or have highly technical capacity and lack the skills needed for CBDM. A retooling of skills and programmes may be necessary to adapt to the changing demands of achieving sustainable communities.



This type of approach to CBDM strengthens the likelihood and sustainability of CBDM projects

4. Promote the development of integrated plans incorporating disaster reduction into development planning. LDMOs could promote understanding of disaster risks as they relate with local development planning. For instance earthquake risks are clearly important to be considered in normal urban development planning. The impacts of climate change are also to be considered in climate sensitive development sectors such as public health, food, and agriculture and water resource management.
5. Legislation, plans and programmes that promote sustainable communities through CBDM must have regular allocation of budgets. Funds allocation could be sector specific or allocated through the LDMO.
6. Conduct training programmes that promote sustainable communities through CBDM.
7. Establish and conduct a monitoring and evaluation process that ensures compliance and follow-up actions.

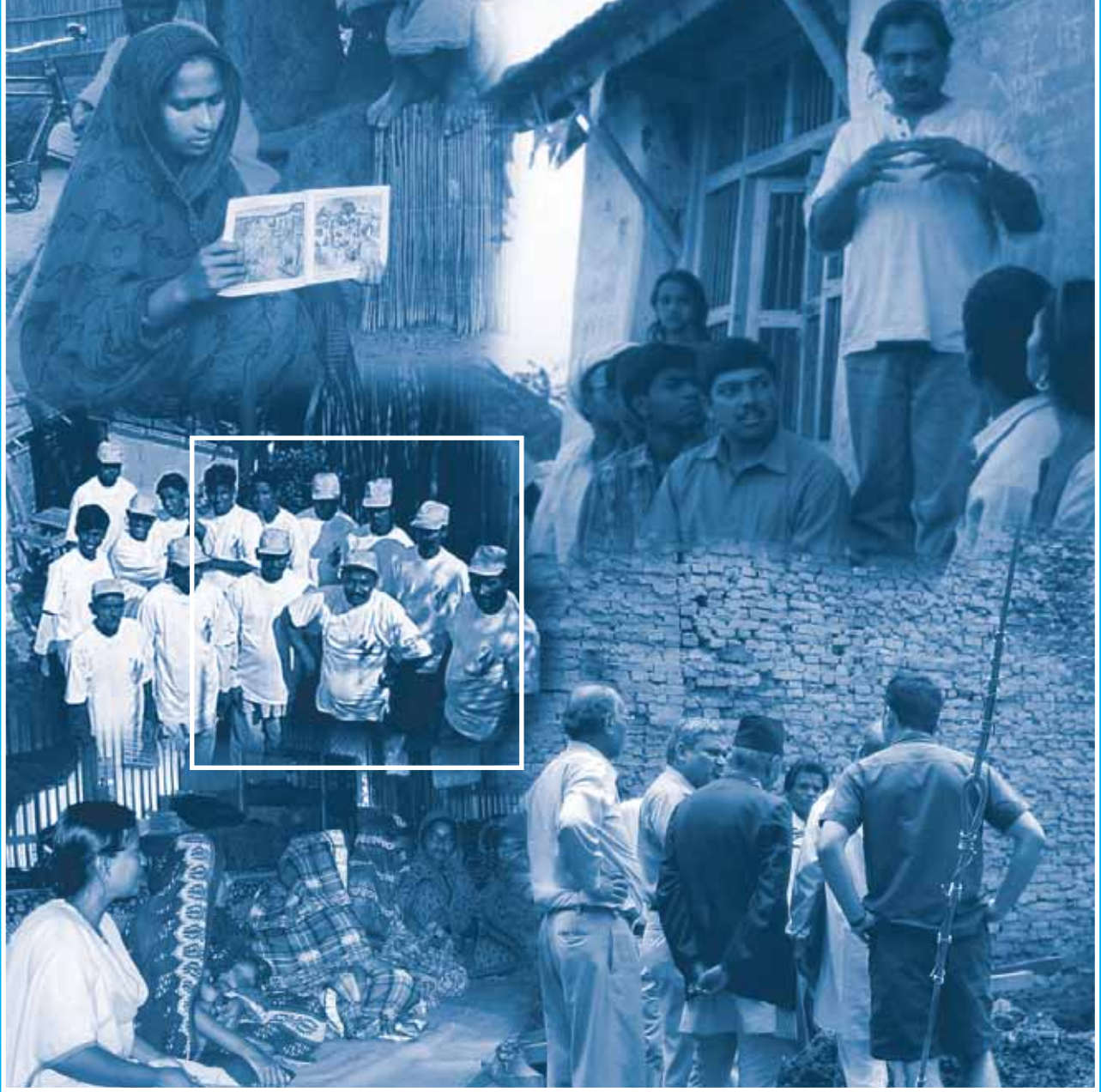
Self-assessment questionnaire for framing a CBDM strategy:



- How well does your CBDM activity promote accumulation of physical, technological and economic assets to reduce vulnerability?
- What practices and activities do you promote to ensure integration of CBDM projects into regular development planning and budgeting?

CBDM Best Practices	Rating of Practices		
	Regularly	Seldom	Not practiced
Village contingency fund			
Income –generating activities to reduce vulnerability			
Micro-solutions, environmental protection measures, small and medium scale infrastructure project that reduces impact of hazards			
Equipment and materials such as for latrines, water supply, warning-communication, rescue and evacuation facilities			
Technology in disaster resistant construction			

Tools for Trainers



TOOLS FOR TRAINERS

What Is Training?

Training is enhancing individuals or groups to develop their full potential and contribute to the success for a specific cause. Development of full potential means:

- 1) Clear knowledge of the cause
- 2) Interest to take initiative to put the knowledge into practice for that particular cause
- 3) Enhanced capacity to respond to the cause
- 4) Attitude to learn through trial and error and make improvement

In this case, the particular cause to is: “Community Based Disaster Management (CBDM)”

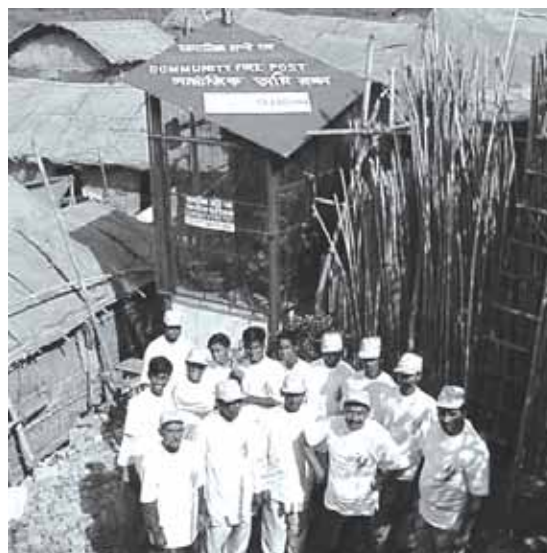
The individuals or groups to participate at training programmes are the community facilitators or extension workers who are termed Change Agents. People committed to bringing a positive change at family and community levels are defined as Change Agents. They are usually trusted, respected and have the ability to motivate the people in the community. Change Agents are the Teachers, Religious leaders, Local Government officials, NGO field workers, Village health professionals (TBA, traditional healers), Social and CBO leaders, Volunteers and Folk singers. They can play a very important role for promotion and dissemination of family and community level disaster preparedness measures to their respective constituencies.

The Tools do not contain any theory. Rather these are based on practical experience of hundreds and thousands of families living in disaster-prone areas for generations. They were covered not only by the case studies, but also by a number of agencies engaged in the field of disaster management for years. So the outputs of successful implementation of this Tools will be SMART

(S = Sustainable, M = Measurable, A = Achievable, R = Replicable, T = Time-bound). This is Not a Training Module. It is required to develop a specific module based on these Tools. The Tools are presented in such a way that one can easily adapt them to suit the local context, culture and need.

Planning CBDM Training

- Should have clear goals and objectives
- CBDM is more acceptable by a community with recent experience of a severe disaster
- Enhancement of survival techniques and coping capacities through community based actions leads to vulnerability reduction of people at risk.
- Smooth implementation is possible only when all the identified stakeholders and Change Agents understand their roles and responsibilities in CBDM projects
- Integration of CBDM into local level developmental planning and budgeting
- Development of a common understanding among the community and the local government administrators to join forces with limited resources will result in becoming less dependent on external assistance



The individuals or groups to participate at training programmes are the community facilitators or extension workers who are termed Change Agents

- For optimum result, CBDM should be incorporated with structural mitigation measures and follow-up activities at community level
- A holistic secure-livelihood approach enhances sustainability of CBDM

Principle of Sustainability

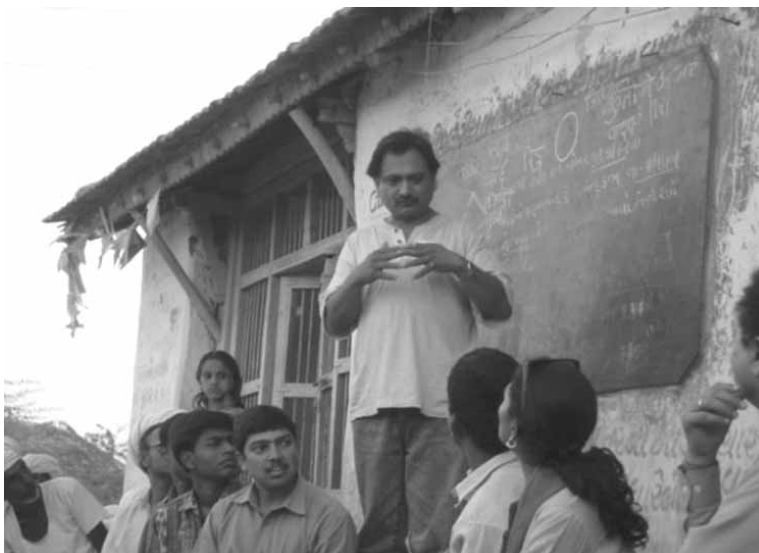
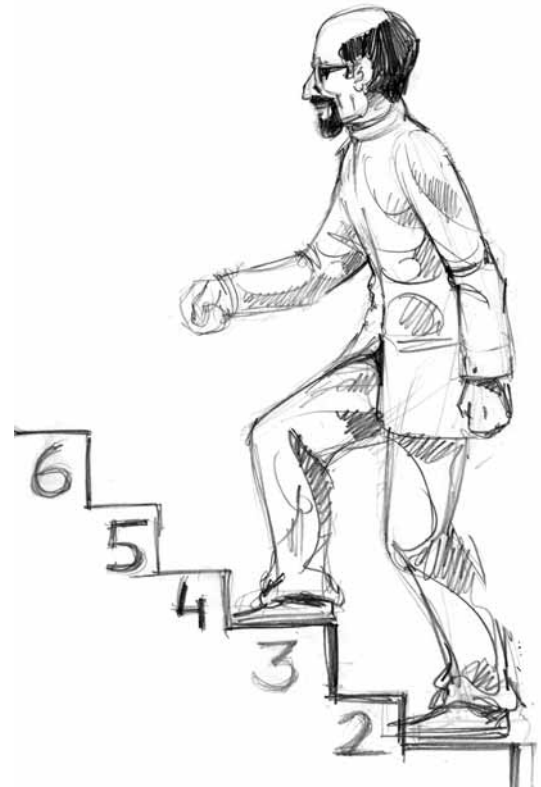
The six principles of sustainability are:

- Maintain and enhance quality of life
- Enhance economic vitality
- Ensure social and intergenerational equity
- Maintain and enhance environmental quality
- Incorporate disaster resilience and mitigation into actions and decisions
- Use a consensus-building participatory process when making decisions

Steps of CBDM Training Cycles

The six steps to conduct successful training cycles are:

- Know the situation
- Identify the local resources
- Design the training course
- Conduct the training course
- Assess the impact of the training
- Learn the lessons



Step 1
Know the Situation

Before a Trainer plans, designs, organizes and conducts the training course for the Change Agents, it is very important to know about the situation of that particular disaster-prone area. It gives the Trainer an overview on the following aspects with regard to all the eight factors:

- Geographical location and physical condition
- Type of major hazards faced and their frequencies. (e.g. cyclone, drought, earthquake, flood, forest fire, landslide, tornado and volcanic eruptions)
- Extent of damage caused due to past disasters (e.g. loss of life, assets and properties)
- The role of respective government and non-government agencies with regard to early warning dissemination, pre-disaster preparedness and post-disaster emergency response operations
- Level of survival techniques and coping mechanisms practised by the people to cope with disasters.
- Any kind of initiatives taken or under process for structural mitigation measures

The Trainer can gather all two information by discussing with the people in the community and making an

assessment of the situation regarding their level of knowledge, attitude, and identify measures to be taken by the Change Agents to improve the situation to benefit the community.

Step 2
Identify Local Resources

Before designing and organizing any training program, it is necessary to identify existing local resources that will help the Trainer to implement the training courses effectively, smoothly, according to schedule and in a cost-effective way. The following local resources need to be taken into consideration:

- Participation and support from the people in the community
- Identification of the right persons as the Change Agents
- Use of experienced local people as resource persons
- Support from the local government authorities
- Selection of venue according to easy access by all the participants
- Availability of training materials that can be related to that training and relevant to the local context
- Strength, Weakness, Opportunities and Threats (SWOT) of the local resources identified through in Step 1



Before planing it is very important for the trainer to know about the situation of that particular disaster-prone area

Step 3
Design the Training Course

Once the situation is known and the resources available within the locality are identified, the Trainer should start designing the training course. During designing the training programme, it is required to study the SWOT analysis done at Step 2. This will guide the Trainer in making use of the existing local resources identified in Step 2. It is necessary to make sure that the use of methodologies and materials should be acceptable and adaptable by the community, Design the sessions in a way that there is always scope for the participants to make comments and give their views based on experience. While designing the training programme, the Trainer should keep in mind that:

- The right number (between 20 and 30) and appropriate level of participants (Change Agents) to be trained in a specific course.
- Duration of the training (number of days/hours) and its schedule are acceptable by the participants without affecting their normal livelihood programmes.
- Methodologies and materials are user-friendly (e.g. group exercise, sharing practical experience, alternative solution in presenting a session where electronic media is not available, etc)
- Before making session plans, discuss with the community

regarding the 8 factors and find out which factor/s they would like to emphasise as appropriate in CBDM approach, relevant to their contexts. (The trainer may include all the 8 factors or may decide which should be given priority to reduce vulnerability).

- According to the SWOT analysis of Step 1, it is required to ensure that the CBDM approach is acceptable and sustainable in that particular area.
- During planning, the trainer should consult with the concerned project staff and maintain co-ordination with the local government authorities and other local resources related to the training.

Step 4
Conduct Training Course

The objective of the training is to empower the Change Agents to disseminate the CBDM messages effectively to ensure behavior change of the people in the community. Since all the six steps of the CBDM circle required full participation of the community, the Trainer MUST ensure application of participatory or action related approach according to Step 3.

- A kind of ice-breaking session should be introduced at the beginning of the course so that the participants feel at ease and comfortable.



The use of methodologies and materials in the training course should be acceptable and adaptable by the community

- Create, and always maintain an open, free and enjoyable environment for sharing and learning.
- Conduct simulation games and organize field visits, if needed.
- Explain the strengths, weaknesses and opportunities of the local resources identified through SWOT analysis in Step 2. Ask the participants to make their own decisions in enhancing the existing strengths, overcoming the weaknesses, opportunities they can use in this process and how to encounter the threats. If required, guide the participants in this exercise.
- The Trainer should always remember that the people in a community feel more comfortable to practice disaster coping mechanisms and techniques according to their choices, rather than choices given to them, which may be difficult for them to adapt.
- The Change Agents should be trained on techniques of motivation so that it becomes easier for them to promote disaster preparedness at family and community levels and measures for reduction of vulnerabilities.
- The Change Agents should make their own Action Plans for performing their specified duties and responsibilities.
- The Change Agents **MUST** practice

the mechanisms and the techniques themselves in their families

Step 5

Assess Impacts of the Training

After the training course is conducted, it is necessary to assess the impact of the training, in both qualitative and quantitative terms, which can be done in several ways, e.g. community observation, discussion with the Change Agents and family and community members. The following aspects need to be assessed:

- Have the Change Agents practiced the measures themselves?
- Are the Change Agents disseminating the information according to the needs of the people?
- Have the people been motivated to take the initiatives at family and community levels and make efforts to keep the CBDM approach on-going, even after the project/programme is phased out?
- Are the community people facing any problem in adapting the techniques and applying them at their respective family and community level?
- Are the communities changing their attitude in becoming less dependent on external support (relief) and taking initiative on their own for disaster preparedness and response management?



Impact of the training can be assessed by- community observation, discussion with the Change Agents and family and community members

Tool 1 :
**How to Promote and Strengthen the
 “Culture of Coping with Crisis”**

Concept

People living in disaster-prone areas for hundreds of years have developed their indigenous survival techniques and coping mechanisms to live with disasters. Some of this knowledge is scientifically proven to be effective. They have passed on this knowledge from generation to generation through experience by identifying ways of reducing the extent of damages in case of a disaster. When families and members of certain communities practice these procedures of preparing themselves for disasters for years, they naturally accept these ways as a part of their respective culture.

Objective

- Assessment of the coping culture in terms of reduction of vulnerabilities, disaster preparedness and response management.
- Promotion and practice of respective coping culture by the people to reduce the extent of damage caused by disaster.

Step 1
Geographical location and physical condition of the area that is disaster-prone

- Existence of survival techniques and coping mechanisms in that area
- Past disaster history and the extent of damage done due to recent disasters
- People’s indigenous knowledge to predict disaster
- Perception of the community about their vulnerabilities and capacities
- Existence of any kind of coping culture in that particular area that is being practiced by the community from generation to generation to reduce damage caused by disasters

People living in disaster-prone areas have developed their indigenous survival techniques and coping mechanisms to live with disasters

- Examples of success and failure of survival against disasters
- Possibility of promoting positive examples within the community

Step 2
Practice of “Culture of coping with disaster Crisis”

- Integrating it in CBDM
- SWOT analysis of the existing coping culture to live with disasters
- Application of these practices at family and community levels
- Existing coping culture based on scientific approach
- Scope of strengthening and promoting through local resources in CBDM activities

Step 3
Design the training course ensuring full participation

- Consider availability of local resources that will be relevant to the training course
- Study the SWOT analysis of coping culture, and plan the sessions
- Keep scopes for participants through group exercises or discussions on how to strengthen and promote the existing coping culture
- Keep in mind the problems that may come, and plan the session so that participants can find ways to solve them
- Provide scope for the participants to come up with ideas of how to improve the situation

Step 4
Assess their level of knowledge

- Use their knowledge and experience for promoting this factor in CBDM projects
- SWOT analysis with the participants on the example (if any) is required to assess its effectiveness
- What innovative measures can be taken for strengthening their coping culture?

- What approach the participants can take in disseminating the information and motivating people to ensure the practice of coping culture by the community?
- Ensure that the Change Agents disseminate accurate information to the people at family and community levels

Step 5
Assess training impact on quarterly or mid-term basis during project implementation

- Are the community people well informed about the benefits of coping culture?
- Have they accepted the coping techniques and put them into practice?
- Do they value it as useful in reducing their vulnerability?

Step 6
It is necessary to reflect on the lessons learned during the promotion of the coping culture

- Ensure evaluation at the end of project period or after the project is phased out
- The findings from the evaluation can be more useful if a disaster strikes during this period
- Did the technique minimize the damages caused by disasters ?
- Did they face any problem with this procedure in terms of their respective culture?
- Were the change agents successful in motivating the community people with regard to behavioral change?
- What is the scope for reviewing the technique and making it more effective?

Tool 2 :
How to enable local people to make the right choices for reducing their vulnerabilities

Concept

People living in disaster-prone areas have their own perceptions about the nature and the extent of vulnerabilities. This assessment of vulnerabilities is complex and varies according to disasters the respective community experiences. People have identified many underdevelopment causes responsible for their vulnerabilities. These include poverty, lack of access to resources, landlessness, lack of education, societal pressures, inequity and lack of proper health facilities. Some countries put emphasis on live stocks being their main livelihood sources while others cite inadequate food production, negligence of improvement of socio-economic conditions by respective governments. Vulnerability is focused on physical structures by a few countries. Through CBDM, it is necessary to involve the people at threat in assessing their own vulnerabilities and empower them to make the right choices for damage reduction.

Objective

- Identification of local people’s perception and assessments of their vulnerabilities
- Consideration of the cause of their perceptions and assessment
- Enabling them to make the right choices according to their need to reduce the vulnerabilities

Step 1
Situation analysis of the main causes of vulnerabilities

- How do the people perceive that they are vulnerable to disasters?
- What are the causes they have identified and given priority to for their vulnerabilities?

Through CBDM, it is necessary to involve the people at threat in assessing their own vulnerabilities and empower them to make the right choices for damage reduction

- How do they assess their vulnerabilities (extent of damages due to their vulnerabilities)?
- What expectations do the people have of the organization promoting CBDM?
- Examples of extreme vulnerability that has been responsible for severe damage (loss of life and property) during recent disasters

Step 2
Identification of resources, which provide structural support and promotion of CBDM through non-structural initiatives

- What structural measures are the people giving priority to (buildings, hospitals, bridges, dams, etc.)?
- Availability of local resources that can reduce vulnerabilities through structural measures (local government, municipality, private sector, development organizations, etc.)
- What are their preferences in making choices?
- Application of non-structural measures at family and community levels?
- Any development organization that is already operating in promotion of non-structural measures? Are they meeting the needs of the people in vulnerability reduction?
- Scope of strengthening and promoting non-structural measures through CBDM activities

Step 3
Design the training courses according to people's perceptions of vulnerability and their preference of choices

- Make a SWOT analysis of the existing structural and non-structural measures taken to reduce vulnerabilities and plan the sessions
- Ensure that participants make the right choices according to their local contexts and needs

Availability of local resources can reduce vulnerabilities through structural measures

- Keep in mind the available resources and guide the participants in giving priority to their choices in vulnerability reduction. .

Step 4
While conducting the sessions, assess their level of perception of vulnerability choices they are making according to their priority

- A SWOT analysis of the structural and non-structural measures. What do the participants prefer?
- Is there a possibility of the existing resources to be strengthened that will be accepted by the people for vulnerability reduction?
- Give priority to CBDM approach to ensure sustainability through following the six principles
- Spell out clearly the negative long-term impact on dependence on aid from outside
- Arrange field visits and let the participants see for themselves and assess the situation to make the right choices
- What approach the participants can take in spreading awareness and motivating people in making the right choices according to priority?

Step 5
Assess the training impact on a quarterly or mid-term basis during project implementation

- Are the community people well informed about available resources that are provided with vulnerability reduction measures according to their choices?
- Are they satisfied with the services provided according to their needs in terms of structural and non-structural measures?
- Which measures do they value as useful in reducing their vulnerabilities?
- Are the structural measures making them more dependent on external resources?

- Is the CBDM approach changing their attitude in enabling them to build up their capacity to take initiative to reduce their vulnerabilities?

Step 6

It is necessary to reflect on the lessons learned whether the community has made the right choices. Ensure evaluation at the end of project period or after the project is phased out

- Did the choice the community make minimize their vulnerabilities to disasters?
- Did they face any problems with their choice they have made in terms of their respective culture?
- Were the Change Agents successful in motivating the community with regard to behavioral change?
- What is the scope of reviewing the choices and enhancing the community for sustainable development through vulnerability reduction?

**Tool 3 :
How to ensure effective motivation and choice**

Concept

Motivation is to encourage the people to understand the situation and change their attitude towards acceptance for adjusting/responding to that situation.

Through motivation, it is possible to develop people’s self confidence in taking the initiative on their own at family and community levels for coping with disasters. The ranges of motivation for the initiation and sustainability of the CBDM are subjective in nature, based on perceptions and choices that the community and supporting agencies make. These may include the underlying causes of vulnerability through a broader development effort and reduce people’s dependency on outside assistance through community based disaster preparedness interventions and targeting the most vulnerable. This approach needs active participation of the community and support from local government and social organizations. It is very important that disaster preparedness should start from the grass roots where individuals and the community should be empowered to face the challenge of disasters.

Objective

- Mobilization of volunteers and change agents at community level
- Ensure active participation of the people through preparedness actions at family and community levels instead of being dependent on external assistance
- Involvement of local government, civil society and development agencies to minimize damage caused by disasters



Through motivation, it is possible to develop people’s self confidence in taking the initiative on their own at family and community levels for coping with disasters

- Increase efficiency of the agency in the delivery of its services

Step 1
Know the purpose of motivation for CBDM initiation

- Are the people's perceptions and choices to reduce vulnerability given due priority while initiating CBDM approach that is suitable for that particular community?
- What steps are taken for motivation in making the people less dependent on external help?

Step 2
Identify the existing CBDM initiatives

- Initiation of CBDM approaches should be need-based and suitable for the community
- To what extent are the existing CBDM initiatives, if there are any, reducing the people's vulnerability?
- Are they mobilizing people at local level and ensuring their participation during CBDM functioning?
- Are the government and non-government agencies providing support according to needs of the community?
- Are any measures being taken to improve the socio-economic conditions of the people at risk?

Step 3
Design the training according to CBDM approach that is suitable for that particular community

- Addressing the underlying causes of vulnerability through a broader development effort for reducing people's dependency on outside assistance
- Mobilizing volunteers and targeting the most vulnerable
- Increasing preparedness of community in consonance with civil society and local government response to impacts of disasters

- Protecting and ensuring positive socioeconomic development
- Reducing deaths and massive destruction of properties

Step 4
While conducting the sessions, assess the level of understanding of the people and how they are relating to the CBDM approach with regard to vulnerability reduction

- Explanation of the importance of motivation in relation to its purpose
- A SWOT analysis of the existing CBDM approaches
- Finding ways to strengthen the CBDM approach that will ensure vulnerability reduction
- Emphasize that mobilization and community participation are necessary to ensure effective CBDM programmes
- What approach the participants can take in spreading awareness and motivating people in making the right choices according to the priority?

Step 5
Assess the impact of the training on the participants in relating to motivation of the community

- Are the people motivated to make their choice for initiating CBDM approaches for vulnerability reduction?
- Are the people motivated to accept full community participation during planning and functioning of CBDM initiatives?
- Are the people getting external assistance for sustaining the CBDM initiative?
- Is the CBDM approach changing their attitude in enabling them to build up their capacity to take initiative at family and community levels and reducing their dependence on external help?

Mobilization and community participation are necessary to ensure effective CBDM programmes

Step 6

It is necessary to reflect on the lessons learned while motivating the community to accept the CBDM approach

- Did they face any problems with the CBDM choice they have made in terms of their respective culture?
- Are the change agents successful in motivating the community with regard to behavioral change?
- What is the scope for reviewing the motivating techniques in motivating the community for sustainable development through the CBDM approach?
- Have the extremely vulnerable groups been targeted and have they benefited?

**Tool 4 :
How to ensure Participation and Empowerment**

Concept

Community participation and empowerment are essential components that give a feeling of continued community ownership and sense of responsibility for sustainable CBDM projects. Application of a PRA method encourages a community to participate in analyzing and identifying their vulnerability to disaster and taking measures on their own to solve the problems through use of available

resources. It encourages people for formation in their own disaster management committee and empowers them in identifying and assessing existing potential resources that are vital for mitigating the adverse impact of disasters. These include activating coordination with local government departments, social organizations and involving stakeholders for public awareness, linking of local council with government authorities etc. Action planning, which leads to clear articulation of a community’s felt needs in practical, budgeted and time-bound framework, should be promoted.

Objective

- Ensure active participation of the people for preparedness at family and community levels to cope with a disaster
- Build confidence to become a self-help group and become less dependent on external help assistance
- Empowerment of people at the local level to identify and make use of potential resources in disaster management



Application of a PRA method encourages a community to participate in analyzing and identifying their vulnerability to disaster

Step 1
Find out the status of community participation and empowerment

- Do the people understand that community participation is vital to combat disasters?
- To what extent did the people participate in community decision before initiation of CBDM? How?
- Are they willing to participate to take initiatives at community level to cope with disasters?
- Do they believe that equal and full participation will lead to their empowerment and reduce vulnerability and dependence on outside assistance?

Step 2
Identify existing CBDM initiatives and extent of community participation and empowerment in the process

- Are the existing CBDM projects ensuring community participation and empowerment during the process of its formation and functioning?
- To what extent the people are participating to make the CBDM initiatives effective?
- Have the people become empowered through equal participation?
- What measures are being taken to mobilizing people and empowering them to cope with disasters at local level?
- Are the government and non-government agencies providing support according to the need?
- Any measures taken to improve the socioeconomic conditions?

Step 3
Design the training according to CBDM approach that will ensure equal participation and empowerment of the people at community level

- Retain scopes to ensure active participation by the participants so

that they understand the value of participation and empowerment to solve a problem at community level

- Define their respective roles and responsibilities according to requirement that will enable them to make decisions and take actions
- Focus on the benefits of resource mobilization at the local level

Step 4
While conducting the sessions put emphasis on the value of community participation and empowerment for making CBDM approach successful

- Use methodologies like grouping exercise and role-playing etc. so that they are convinced that they can be empowered to reduce vulnerability to disasters if they work together
- Explain the importance of community participation and empowerment to make a CBDM project effective
- Discuss the various motivation techniques to mobilize people at the local level to participate when a disaster management committee is formed
- Make them understand their respective roles and responsibilities and provide scope to review according to their need
- Ensure that they are now confident about their respective roles and responsibilities which will enable them to take decisions and actions at family and community levels
- Explain the necessity of empowerment to identify potential resources at local level and make use of those resources to reduce their vulnerability
- Encourage them to identify potential resources in the community and what support services they can expect from them
- Throughout the session ensure that they are convinced that their participation and empowerment is necessary to take measures at community level to combat disasters.

CBDM projects ensuring community participation and empowerment during the process of its formation and functioning

Step 5

Assess how much impact the training has created on community participation and empowerment

- Are the people actively involved during the formation of the disaster management committee?
- Are they empowered to make decisions and take actions?
- Are the people playing their respective roles and responsibilities for effective functioning of a CBDM initiative?
- Is the empowerment enabling the community to have access to potential resources for support services according to requirement?
- Have the participation and empowerment of the community reduced its vulnerability to disasters?

Step 6

It is necessary to reflect on the lessons learned and see to what extent their vulnerability has been reduced through community participation and empowerment

- Did they face any problems while participating during formation and functioning of a CBDM initiative?
- Was it difficult for them to perform their roles and responsibilities with regard to acceptance of their respective culture?

- Did they experience any kind of resistance when accessing resources for support service?
- Have the community been benefited through active participation and empowerment and to what extent?
- What is the scope for reviewing the motivating techniques in enhancing the people’s participation and empowerment for sustainable development through CBDM approach?

**Tool 5 :
For Effective Training Approaches**

Concept

Training is enhancing individuals/groups/organizations to develop their full potential and contribute to the success for a specific cause and the training approaches for this specific causes are the Community Based Disaster Management (CBDM) initiatives. Training varies in accordance with the objectives of the project and the needs of the communities. Usually training is delivered through established organizations and institutions. Most importantly training should be targeted to include those people who are involved in providing services relating to their respective roles and responsibilities during implementation of the project components. It is obvious that the right selection of the participants will lead to developing a



Training varies in accordance with the objectives of the project and the needs of the communities

sense of ownership among individuals and organization, and encourage them to ensure sustainability of a CBDM intervention. It is essential for the Trainer to remember that this kind of training must be conducted through a participatory approach where full participation of the community is ensured.

Objectives

- To enhance the capacity of the people to cope with disasters before, during and after the event, at family and community levels
- To change their attitude towards taking initiatives at community and family levels and become less dependent on external assistance
- To form a community based disaster management committee and ensure effective functioning of this committee to reduce vulnerabilities
- To involve existing training institutions/organizations at the local level in the CBDM training programmes for human resource and organizational capacity development

Step 1
Clear knowledge of people's vulnerability to disasters while initiating CBDM training

- Are the main causes of vulnerabilities for that particular

community given due priority while in time?

- What type of training courses have already been conducted for enhancing the capacity of the people at community and family levels to cope with disasters?
- Appropriate selection of participants who will be trained as volunteers and Change Agents for effective implementation of CBDM projects

Step 2
Identify the existing organizations or institutions which are already involved in delivering CBDM training courses

- Are the CBDM training programmes delivered by existing organizations/institutions according to the need of the community?
- Do they follow any appropriate criteria for selection of the right type of participants for specific types of training courses?
- Is the training mobilizing people and ensuring their participation during CBDM functioning?
- Do they consider people's convenience while scheduling training programmes?
- To what extent has the existing training been able to change the attitude of the people in reducing their dependence on external aid?



Selection of participants should be appropriate for training of volunteers and Change Agents for effective implementation of CBDM projects

- Scope of involving these organizations in the CBDM training programme with regard to human resource and organizational development

Step 3

Design training according to CBDM approach that is suitable for that particular community and involving the existing local resources

- Analyze SWOT of the existing training resources that are already providing CBDM training courses
- Share training experience with the existing organizations, and come up with new ideas to make training courses more meaningful
- Selection criteria for the participants to be involved in the training
- Use participatory method with emphasis on group discussions, group exercises, role-plays and mock demonstration, to ensure full participation
- Retain the scope for participants to come up with new ideas to mobilize the community members in effective functioning of CBDM approaches

Step 4

While conducting the sessions, ensure understanding of the people on the importance of training for a sustainable CBDM approach with regard to reduction of vulnerability

- Explanation of importance of training with relation to the vulnerabilities of that particular community
- Significance of the participants' role and responsibility to mobilize the community to make a CBDM project sustainable
- Scope for participants to identify the weakness and threats that are responsible for vulnerabilities
- Encourage participants to make their own choices to strengthen their respective weakness and avail

themselves of opportunities through existing local resources that will ensure reduction of vulnerabilities

Step 5

Assess the impact of training on community participation with regard to formation and effective functioning of CBDM components

- Are the volunteers and Change Agents well trained in disseminating CBDM related messages to the community?
- Has the training created enough impact to mobilize people to take initiative at family and community levels to cope with disasters?
- Are the people accepting the messages of the Change Agents?
- Are the messages motivating people to change their attitude by taking CBDM initiatives at family and community levels?
- Has the training been effective through the use of existing training organizations/institutions at local level?
- Has the training been able to achieve its objective with regard to human resource development and organization capacity-building in accordance with the CBDM approach?

Step 6

It is necessary to reflect on the lessons learned while conducting training sessions

- Make a SWOT analysis of the CBDM training courses conducted in terms of the following aspects:
 - Issues addressed during training according to the need of the respective community and related to the CBDM initiatives
 - Methods and materials user-friendly and accepted by the participants
 - Extent of support and delivering CBDM training through existing organizations/institutions

Methods and materials used should be user-friendly and accepted by the participants

- Enhanced capacity of the people at risk to take initiatives through putting the knowledge into practice at family and community levels for reducing their vulnerabilities
- Attitude to learn through trial and error and make improvement in coping with disaster
- What is the scope for reviewing the training techniques in enhancing the participation of the community in sustainable development through CBDM approaches?

Tool 6 :
How to successfully identify stakeholders

Concept

All projects have a wide range of stakeholders. They include beneficiary groups such as the extremely vulnerable people at risk; service providers such as local and central government institutions, the non-governmental organizations(NGOs), health sectors, educational and religious institutions, and bilateral and multilateral donor agencies. This extensive list of stakeholders indicates that for a CBDM to be successful, implementers should be adept at identifying and mobilizing as many stakeholders as necessary. Efforts should be made to make formal arrangement of partnership among the stakeholders.

Objectives

- Identification of potential stakeholders at community level including local level institutions and organizations and national and international agencies
- Defined support services from the identified stakeholders
- Formal institutional arrangements among the stakeholders to improve accountability and transparency (which is important for sustainability of CBDM)

Step 1
Clear knowledge of people's awareness on the importance and role of stakeholders

- Are the people aware of the importance of stakeholders as support service providers?
- What types of support services do the community expect from stakeholders to cope with disasters?
- Any example of stakeholder at village level that helped the people to a great extent during the last disaster?



Efforts should be made to make formal arrangement of partnership among the stakeholders

Step 2

Identify stakeholders who can be or are already involved in CBDM initiatives at local and national levels

- Stakeholders who are already involved in other similar projects in the area.
- Stakeholders who can provide services to structural or non-structural disaster mitigation programmes such as:
- School teachers, religious leaders, representatives of the local government institutions and NGO workers who can play the role of Change Agents
- Informal and formal leaders at the village level, volunteers who can take the responsibility of warning dissemination and evacuation
- Villagers with specializations and are mobilized to protect embankment and masons who can build earthquake-resistant structures
- Local business sectors who can come up with financial resources
- Local health sectors to provide emergency health services at post-disaster emergency phase
- Scope of involving these stakeholders in initiating and activating CBDM projects

Step 3

While designing the training programme, keep in mind the existing stakeholders and the kind of support services they can provide in CBDM projects

- Identify the activities of the stakeholders who are involved in developmental work in the community
- Analyze the support services provided by respective stakeholders for implementation of those projects
- Make selection criteria for stakeholders according to their services that can be used during formation and implementation of CBDM projects
- Use examples of other areas/countries that can be

replicated and accepted by the community you are providing the training to

- To what extent has the stakeholder role in CBDM projects of other countries been effective in reducing vulnerabilities?
- Remember to involve stakeholders at community level, local government and NGOs, national and international organizations as well
- Define the roles and relationships of the identified stakeholders

Step 4

While conducting the sessions, emphasize the importance of involving as many stakeholders as possible for a sustainable CBDM initiative

- Assess a participant's level of understanding the importance of stakeholders in relation to the type of support services they can provide to CBDM projects
- Give examples of stakeholders of other areas/countries and their support services in CBDM projects
- Ask participants to identify as many potential stakeholders as they can, and the type of support they expect from the identified stakeholders
- Encourage participants to define the role and relationship of stakeholders for sustainable CBDM approaches
- Encourage participants to replicate examples from other areas/countries according to the need of their community for coping with disaster
- Give importance to stakeholders at all levels who can provide different types of services needed for sustainable CBDM
- Process of mobilizing stakeholders during initiation of CBDM projects and in time of responding to emergency.
- Scope of formal institutional arrangements among stakeholders to improve accountability and transparency, which is important to sustain a CBDM approach

The importance of stakeholders can be understood in relation to the type of support services they provide to CBDM projects

- Remember that the participants must be comfortable according to their accessibility to the stakeholders and guide them how to use this channel for availing their services

Step 5
Assess involvement of stakeholders with regard to formation and functioning of CBDM activities

- How many stakeholders have been involved in CBDM initiatives and at what levels?
- Are the support services of the stakeholders effective enough for smooth implementation of CBDM projects?
- Are the stakeholders playing their respective roles in reducing vulnerabilities of the people at risk ?
- Any initiatives taken for formal institutional arrangements among stakeholders to improve accountability and transparency?

Step 6
It is necessary to reflect on lessons learned with regard to involvement of stakeholders in CBDM projects

- Did the community face any problem during accessing services of stakeholders?
- Which stakeholder and at what level, played the most effective role

in reducing vulnerability of the people at risk in CBDM projects?

- Which stakeholder responded to the emergency according to the need of the community during disasters?
- Have the stakeholders' services made the community more dependent on them or have the stakeholders been able to bring a positive behavioral change within the community?
- What is the scope of defining the role of the stakeholders and making better selection criteria that will enhance the community for a sustainable CBDM approach?

Tool 7 :
How to Develop Community Assets

Concept

CBDM projects should promote tangible and intangible accumulation of physical, technological and economic assets to reduce vulnerabilities. Most of the case studies, conducted by UNCRD, have identified tangible assets in the form of :

- Village contingency funds and availability of credit for income generating activities
- Micro-solutions, small and medium-scale infrastructure projects that reduce impact of hazards
- Equipment and material for shelters, latrines, water supply,

CBDM projects should promote tangible and intangible accumulation of physical, technological and economic assets to reduce vulnerabilities



- warning dissemination, rescue and evacuation facilities
- Intangible “assets” such as technology in disaster resistant constructions and access to information centers have also been identified

Objectives

- Mobilization to influence potential stakeholders at the community level for development of village contingency funds and availability of credit for income generating activities
- Identification of micro-solutions, small and medium-scale infrastructure projects at the local level and ensure their contribution to the reduction of impact of hazards
- Ensure provision of latrines, water supply, warning dissemination systems, rescue and evacuation facilities
- Advocacy for technology in disaster resistant constructions and access to information centers

Step 1
Know the present situation on people’s understanding of community assets development to cope with disaster

- People’s understanding of community assets development in minimizing their vulnerabilities to disaster
- What type of tangible and intangible assets could be accumulated to meet the communities’ need to cope with disasters?

Step 2
Identify stakeholders who can be or are already involved in community assets development

- What is the present situation of the stakeholder’s contribution to community assets development?
- Which area are they giving priority to: Tangible or intangible components?

- In what forms are the tangible and intangible assets used?
- Are they meeting the needs of the community according to the CBDM initiative in that particular community?
- Scope of involving and influencing other potential stakeholders in community assets development

Step 3
While designing the training programme, focus on need-based community assets development in accordance to the CBDM approaches

- Analyze the community assets development programme taken by local stakeholders in terms of reduction of vulnerabilities
- Which form of physical, technological and economic assets are preferred by the community?
- What is the extent of the local people’s contribution to community assets development?
- Use examples of other areas/countries on community assets development that can be replicated in that particular area to cope with disaster
- Give importance to community assets development that will result in improved socio-economic conditions.

Step 4
While conducting the sessions, underline the cause of community assets development for reduction of vulnerabilities that will lead to improved socioeconomic conditions of the community

- Assess the participant’s insight into the value of community assets development for coping with disasters
- Explain the benefits accumulation of tangible and intangible assets for reduction of vulnerabilities
- Place importance on the participant’s preference on the kind of tangible and intangible assets to be developed

- Encourage the participants to identify different forms of tangible and intangible assets that will be effective in the community and in accordance to the CBDM approaches in that particular area
- Give examples of other areas/countries and ask participants to identify those that will meet their needs

Step 5
Assess the impact of community assets development on reduction of vulnerabilities

- Which tangible and intangible assets accumulated seems to be more accepted by the community for reducing their vulnerability?
- Assess the use and effectiveness of various forms of tangible and intangible assets by the respective stakeholders
- To what extent are the people convinced about community assets development for reduction of vulnerabilities?
- What is the present status of community participation with a positive attitude in this regard?

Step 6
It is necessary to reflect the lessons learned through community assets development process through CBDM projects

- Did the people make the right choice during community assets development for reducing their vulnerabilities?
- Were they able to replicate any example from other areas/countries and was it effective?
- Did they face any problems with stakeholders who provided services during community assets development?
- Did the CBDM approach achieve its objective in terms of improved socioeconomic conditions of the community by enhancing members' ability to cope with disasters?
- Are there other suggestions by the people that can be included in community assets development that would be more effective towards a sustainable approach to cope with disasters at the grass-roots level?

Tool 8 :
How to mainstream and legalize CBDM projects

Concept

It is logical to promote community development assets as one of the most important factors of CBDM initiatives



By incorporating vulnerability assessment and reduction processes into a regular development programme, CBDM project can be given a legal basis

by mainstreaming it into regular development planning and budgeting processes. Through incorporating vulnerability assessment and reduction processes into a regular development programme, CBDM project can be given a legal basis. This process will definitely ensure continuation of disaster management techniques practiced by the people at the grass-roots level. There are several examples, identified in the case studies, which demonstrate that it is applicable and achievable (Municipal Capability Enhancement Programme in Nepal and Municipal Disaster Coordination Council (MDCC) of Philippines).

Objectives

- To mainstream CBDM projects into regular development planning and budgeting processes to ensure sustainability
- To legalize CBDM initiatives through incorporating vulnerability assessment and reduction processes into government development projects
- To ensure continuation of disaster coping techniques at the grass-roots level by people at risk through behavioral change communication

Step 1

Find out the level of CBDM initiatives

- How the CBDM (if any) is formed and to what extent is it functioning for coping with disasters?
- How much is the government involved in the existing CBDM initiatives?
- What is the scope of sensitizing the government?

Step 2

Identify local government authorities who can be mobilized to make the CBDM legal

- According to the magnitude of damage caused by the kind of disaster/disasters in terms of loss of life and property, identify local government authorities who can

provide assistance through responding during emergency

- Scopes of involving and influencing the local government authorities to make a CBDM project sustainable

Step 3

While designing the training programme, focus on what needs to be done for legislation of a CBDM project

- Analyze the attitude of the local government authorities with regard to CBDM projects
- Scope of legalizing CBDM projects
- What is the view of the local people regarding legalizing CBDM initiatives?
- Use examples of other countries such as Nepal, India and Philippines on CBDM legislation and the benefits that can be replicated in that particular area to cope with disaster

Step 4

While conducting the sessions, give importance to the legislation of CBDM approaches is being necessary for ensuring positive behavioral change of the community in coping with disasters and explain the benefits of legislation of CBDM approaches

- Encourage the participants to come up with ideas how it can be integrated into regular development planning and budgeting in government structure (Participants from government departments can give important inputs during this procedure)
- Discuss with the participants the scope of incorporating vulnerability assessment and reduction into government development projects. (Participants from government departments can give important inputs during this procedure)
- Emphasize throughout the session that CBDM legislation will ensure positive behavioral change among the community with regard to coping with disasters

Step 5
Has CBDM been mainstreamed and the legislation been effective in terms of reducing vulnerabilities and responding to crisis over time?

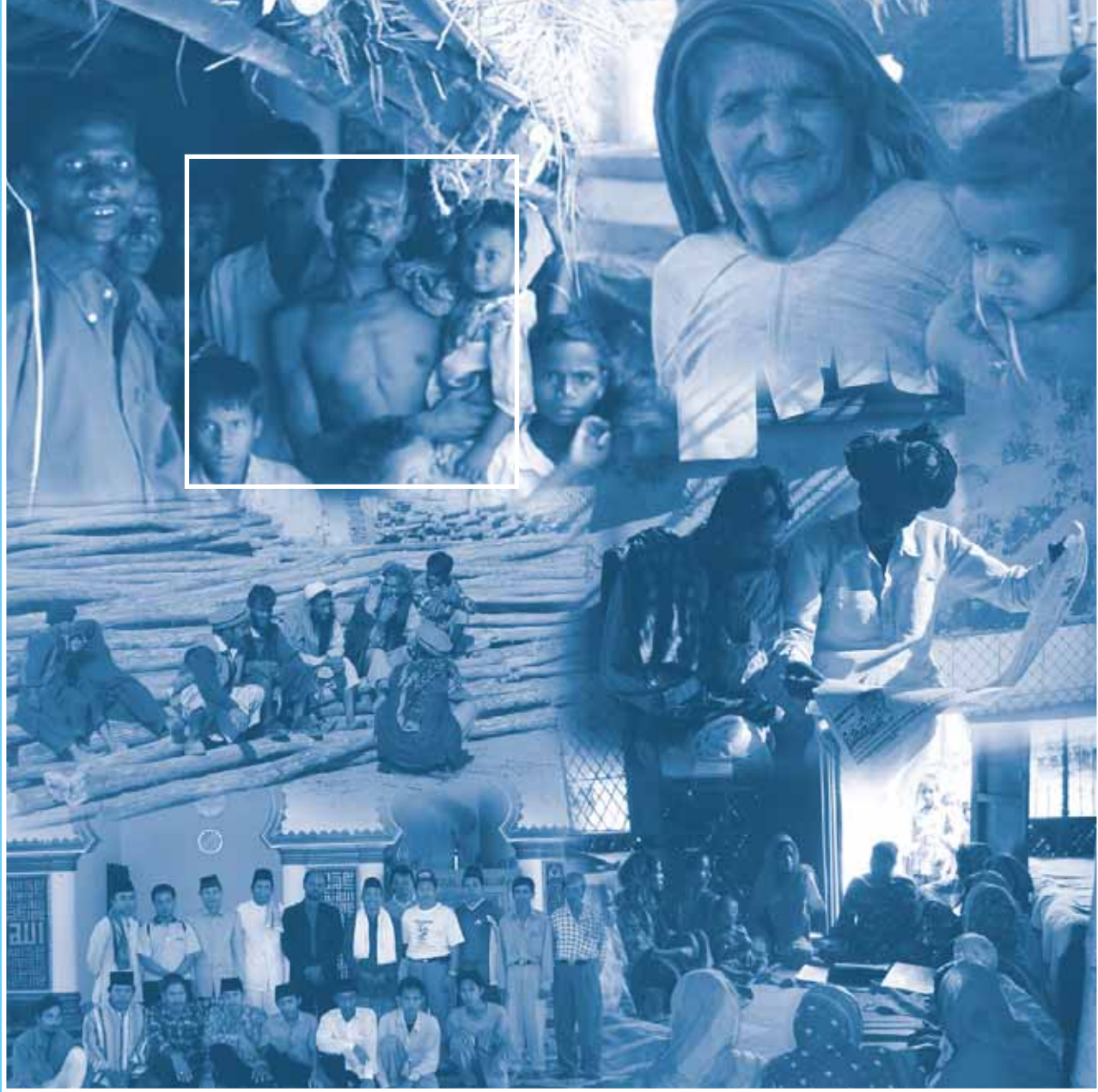
- To what level have CBDM initiatives been mainstreamed with normal development programme planning and budgeting?
- To what extent has the CBDM legislation been effective in meeting the needs of the community with regard to coping with disaster?
- Has the legislated CBDM been effective during times of disasters?

Step 6
It is necessary to reflect on the lessons learned through legislation of CBDM projects

- Did the legislation of CBDM initiatives meet the objectives in terms of continuation of disaster coping techniques by the community and reducing their vulnerabilities?
- Make a SWOT analysis of a legalized CBDM project, identify areas that can be strengthened and threats to be countered with possible available opportunities



■ Tools for Community Workers



TOOLS FOR COMMUNITY WORKERS

Who Are Community Workers?

On the basis of the finding in the six country case studies, it is assumed here that a Community Worker is from ‘within’ the community. Though, in reality, a community worker could also be literally from ‘outside’ the community, but working closely with it. However, in the context of the tool, it means that, the community worker has been through the disaster experiences, emotions, hazards, coping mechanisms, and uncertainties like other members of the community. Or, like the rest in his/her community, is potentially at risk vis-a-vis a natural calamity.

A community worker is not an individual pursuing an individualistic agenda. S/he is always part of a team – often a team engaged in developmental action with the community; and is perhaps working on CBDM not as an isolated concern, but as a part of the overall developmental goal. So while the community worker has to integrate CBDM with developmental goals, s/he also has to work with a team whose aim may not be exclusively focused on CBDM.

And yet the community worker in CBDM stands apart – as an individual:

- Who is willing to champion the cause of disaster mitigation and management from within the community and is slightly better positioned – by way of abilities, knowledge, attitude, and access to resources compared to most within the community;
- Who believes s/he can change the situation for himself or herself and the rest of the community, and therefore potentially carries a strong

positive self-interest, which extends to the collective interests of the community;

- Who represents the socio-economic-cultural psyche of the community;
- Who is preferably chosen and created by the community. And is also made most accountable to the community in terms of how s/he creates a change process within them.

A community worker undertaking disaster mitigation and management work within the community faces perhaps the maximum pressure and expectations from the community – as well as from the external change agents – be they the implementing NGOs, donors, or the State. Under the combined pressure of both, the community worker may often compromise on basic planning processes; or may be compelled to achieve activity targets quickly, and thus short circuit the necessary stages that go into preparing a community for future disasters.

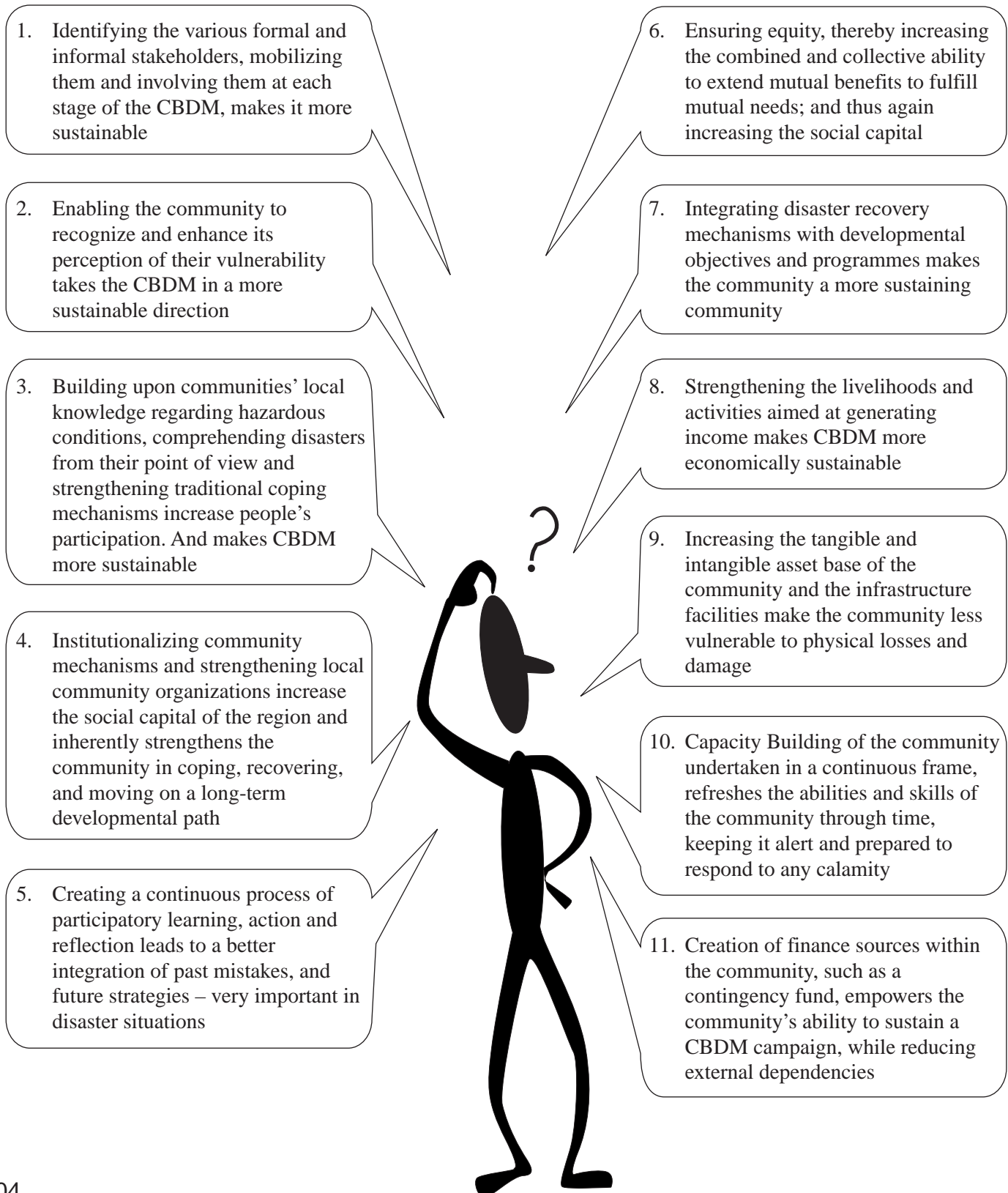
This tool has been developed, keeping in mind the special status of a community worker. The person who is expected to translate into action the many complex principles and processes that go behind sustainable community based disaster management. However, community workers are governed by their socio-cultural contexts and this guideline too has to be adapted to the many different contexts in which it will perhaps be used. It is, therefore, not to be used as a prescriptive tool – but more as a flexible planning aid. And like all guidelines, its usefulness will lie in the creativity and initiative of the community worker, the team with which he/she works, and the accompanying organizations/institutions

Community worker has been through the disaster experiences, emotions, hazards, coping mechanisms, and uncertainties like other members of the community



Lessons for Community Workers

Of relevance to the Community Worker are the case study experiences among countries, societies and communities, which have clearly demonstrated the following issues. These issues are closely linked to eight factors identified for the sustainability of CBDM.



Translating Lessons into Actions

The above issues are considered to be to a large extent in the control of the Community Workers. It is necessary to develop the ability to address the above issues with the help of training institutions and if necessary external change agents and to translate these issues and lessons into actions.

It is believed that when experiential issues, such as those above, are understood in context, adapted and replicated, the probability of a sustainable CBDM is higher. However, until the community worker, as the primary change agent, does not know how to identify and mobilize stakeholders, how to ensure equity, how to integrate disaster and development in routine activities, how to initiate participatory learning, how to revive traditional knowledge and wisdom in a disaster context, - in short, until they know HOW TO, CBDM cannot be sustainable.

This section will attempt to suggest possible ways and methods by which a Community Worker can begin initiating some of the key steps from those identified above, which can lead towards implementing sustainable CBDM.

Tool 1 :

How does a Community Worker identify and involve stakeholders?

- First of all, it is needed to define the community with which to work. Is it the most vulnerable economically or socially? Is it chosen because it has to spearhead the process of CBDM for a larger community? Is it in a location, which is at highest risk?
- A stakeholder is the one who is specifically impacted by the disaster, and/or has a potentially significant role to play in the mitigation or management of the disaster within the community

- Classify the community based on who are the primary and secondary stakeholders
- Identify, for instance individuals at maximum risk. Individuals who are traditionally the first responders in a disaster. Individuals who carry specific skills, which can contribute to mitigation, relief or recovery. (For example, masons in the rural context and engineers in the urban). And individuals who are already resourceful
- Assess, with the stakeholders, the impact of disasters on them. Their interpretation of the impact on the larger community and their own assessment as to how they specifically can help mitigate or manage the disaster. This exercise will give an assessment of the stakeholders' attitudes, opinions, knowledge and skills set as relevant to the disaster
- Engage representatives of the different stakeholders in all decision-making processes from day 1. Some may respond faster and some less so. But make their presence non-negotiable
- Every community must be made to identify a specific role and responsibilities, which they are willing to shoulder, within the activity and action plan. This enhances the stakeholder groups' perception of their own value and abilities

Tool 2 :

How to enhance a community's perception on its vulnerabilities?

- It would help to first initiate a collective understanding of the community, on what they consider a disaster
- It does not help to have a preconceived notion of what constitutes a disaster for any given community. While the more frequent natural calamities would be the focal point for the CBDM,

A stakeholder is the one who is specifically impacted by the disaster

remember, there are many less known, less publicized disasters which make communities increasingly vulnerable, and reduce their coping mechanism against large disasters

- Undertake a participatory risk assessment process which would comprise a situational analysis, hazard mapping, risk mapping, and equally important, opportunity mapping
- It helps to assess how the community behaves in a crisis. Every disaster creates a crisis, but every crisis is not a disaster. However, community behavior, attitudes, cohesive strength resource base can sometimes more easily be assessed during a crisis. Increased abilities to deal with crises suggest a decrease in vulnerability often, and vice-versa. An epidemic or an accident even a pest attack is an example of a crisis which might have put the community at economic social, or physical risk
- Assessments within timelines are important. A good time-span would be 10-15 years. Because community leadership patterns begin changing over this period

Tool 3 :
How to identify and strengthen traditional wisdom and coping mechanisms?

- As the community worker, you would have been witness to or benefited from local, traditional coping mechanisms. First go back into personal history, identify incidents, dialogues, observations and list them. Because it is important that, first of all, you attach a value to traditional wisdom. To local systems of coping
- If a value is attached to these systems, it is possible to generate pride and faith in the dialogues with the community. And it is possible to arrive at a robust list of ways and means in which the community

managed some phases of the disaster independently

- The coping mechanisms could be structural, e.g., types of houses, , which have evolved over the years to counter earthquakes or roofing to counter cyclones. They must be listed separately as they represent traditional wisdom, skills and innovations. Less visible are the non-structural mechanisms of coping, such as grief management
- Assess the cost-effectiveness of traditional systems, alongside modern, technologically more advanced coping systems, structures and processes. Economic analysis helps the community decide on its options
- Assess the reasons why such systems have either failed, gone out of use, or vanished. Has it been rejected by the society? Or has it been overwhelmed by the introduction of newer systems more aggressively, by external change agents
- Developing a contingency fund with the community often empowers the community to revive mechanisms and systems, in which it has greater faith. These options must be explored
- A time-tested, popular, sustainable, but low-key traditional system must be highlighted extensively. The community worker must bring these to the notice of all external support agencies and institutions and contribute towards getting them legitimized by the State. This is particularly true of traditional structural features – be they engineering structures, mechanical applications or natural resource management systems

A time-tested, popular, sustainable but low-key traditional system must be highlighted extensively

Tool 4 :
How to contribute towards strengthening and legitimizing community organizations

- Identify, along with the community, all the existing, functional community organizations, whether they are economic bodies, cultural organizations, youth clubs, social groupings, developmental agencies, semi-government partners, women's groups or even traditional law-dispensing mechanisms, such as people's courts
- Create, along with the community, a credibility circle, which can place each identified organization on varying scales of credibility, as perceived by the community. The would be assessed on varying parameters – effectiveness in normal times, in disasters, responsiveness, capable membership, self-sustaining, fair, partisan, well-managed, consistent
- This review will facilitate an assess whether there are grouping or organizations which should be strengthened in view of their credibility, together with what the capacity-building needs are, and who should constitute the stakeholders
- In the absence of strong, credible local organizations which can take the CBDM processes ahead, you would have to develop and nurture a team from within the community, which begins by forming a committee
- Formation of committees, as a legitimized, organized body for CBDM, is an activity you are expected to engage in. Committee formation for CBDM should ensure that-
 - (a) Even though the CBDM may focus on the most vulnerable, the committee must have a good representation from among the vulnerable, but must not be constituted of all

members who are the most vulnerable. In a disaster, the committee is expected to rise out of their vulnerable situation and act for the larger community. It helps the most vulnerable to have two to four resourceful and sensitive members from among the relatively less vulnerable

- (b) All stakeholders and different sections of the community should be represented equally in the community
- (c) If there are existing committees for developmental purposes in the community, try not paralleling and segregating the developmental and CBDM committees
- (d) Ensure a lead-time when all members of the committee are undertaking equal responsibilities and are mutually dependent on each other's role. Only after a certain period of active implementation on activities should power positions in committees be assigned.
- (e) Once a committee is perceived and understood to be responsible and mature enough to handle power positions without power-politics, the process of structuring the committee into a community organization can be considered.

Tool 5 :
How to generate a continuous participatory learning and action process, which can empower the community in CBDM

- The approach to participatory learning and action begins with understanding of the role of the community. Remember, external change agents are participating in your CBDM. It is not the community, which is participating

All stakeholders and different sections of the community should be represented equally in the community

has to be consistent in order to be sustainable. For instance, if you solicit the participation and decision-making of all community representatives, then meetings have to be structured, planned, taking into consideration everyone's time and space. Holding spontaneous, and ad hoc meetings in the initial stages will mean that only the more proactive, and resourceful will participate.

- As a change agent of the community itself, you have to take the initiative to own up to the CBDM efforts. You identify the needs, you initiate the dialogue, you organize the time, place and scale of meetings in consultation with change agents from outside. Mentally owning up to the process will ensure physical, intellectual and emotional participation.
- Guard against token participation, where CBDM processes tend to be ratified or undertaken with a chosen few from the community. The committee or representative bodies are the bridge between external agencies and the community. Therefore the onus of consulting, dialoguing, communicating with the larger community must lie with the committee or local organization. A committee is there to engage with the larger community, not to engage in exclusive dialogue with you and other change agents.
- Participatory training, exposures, and study assessments must be undertaken continuously, until participation becomes a value within the community.
- Symbols, symbolism and symbolic events all contribute to an environment of participation. For example, symbolic identification of all the stakeholders binds them and generates transparency as well as accountability. Designating days, which get associated with CBDM processes is another common way of creating such an environment. Developing campaigns around

specific, and targeted mitigation measures across a region creates energy for participation.

- Non-negotiable commitment of time and even financial resources by the community towards different activities (as their contribution) ensures a constant process of enquiry and accountability within the CBDM.
- Participatory learning has to be cultivated as a practice in all the developmental intervention of the community, only then will it get extended in a sustainable manner, over the time, to CBDM.

Tool 6 :

How to ensure equity

- It is essential to develop positive discrimination towards the more vulnerable, and less resourceful to ensure equity. Equity has to be seen in the context of gender, class, clan or ethnic groups and locations (for example urban-rural).
- A socioeconomic assessment of the impact of disasters on different sections, during and after a disaster, would give the community a factual picture of inequity.
- Through creative role-plays and training exercises, the community must be made aware of the fact the inequity means that those more vulnerable will pull down the strength of the larger community through the continuous dependency on those more resourceful. And reduce the social capital needed to fight disaster situations. While plugging inequities by reaching out to the most vulnerable first would increase the collective ability of the community to fulfill each other's needs and enhance the social capital.
- You, as community worker, can ensure equity through various processes - in the prioritization of activities, in allocation of resources for the various activities and programmes and in the

The committee or representative bodies are the bridge between external agencies and the community

benefit first and become in a sense the 'first actors in CBDM'. By setting equitable norms, you also sensitize the larger community to equity issues.

Tool 7 :
How to effectively integrate developmental interventions with CBDM

- Every disaster unleashes a new process of development and creates many developmental opportunities for the community. Relief, recovery, and rehabilitation are all merely immediate punctuations on what is a renewed developmental path
- If you define development as the physical well-being of a community, as well as a community pattern of responsibility, self-reliance and dignity, then you will first ensure that these attributes are not sacrificed in the process of rehabilitation and recovery. Therefore, every activity of CBDM will be planned to ensure that it leads to the above definition of development
- Patterns of external aid, how much is required, when, for whom, until what time, are aspects which must be reviewed minutely under CBDM. Lack of consciousness by the community on where and how it comprises its developmental goals in a disaster, will lead to a repeat of

the pattern in each disaster and cannot sustain CBDM

- Three areas of development are closely linked with disaster mitigation, as seen in the case studies. Natural Resource management activities, reconstruction, revitalization and maintenance of physical infrastructure and facilities, and Vocational or livelihood generating training. The three areas become key developmental goals which actually become a disaster mitigation need too. Undertaking participatory appraisal of all three sectors with different sections of the community and building action plans around them can create strong integration between CBDM and developmental interventions
- Formal education through teachers, curriculum and children comprises a sector which becomes vulnerable to disasters, and yet strengthening this and making it a medium for CBDM, also strengthens a developmental objective
- A community's access, ability and capacity to use developmental finances effectively with integrity, transparency and accountability is important. Educating and enabling the community to do so, increases its ability to expend and implement in a disaster. It empowers them in the CBDM and makes the community a more sustaining



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- A community's access, ability and capacity to use developmental finances effectively with integrity, transparency and accountability is important. Educating and enabling the community to do so, increases its ability to expend and implement in a disaster. It empowers them in the CBDM and makes the community a more sustaining society. The lack of experience to manage and handle funds makes a community much more dependent on external factors and forces in a disaster. And reduces its ownership as well as participation, in the long-term
- Information management and use of information and communication and technology is today widely recognized as a sector which needs to be integrated with all developmental activity – as it has proved to be empowering for the vulnerable. Strengthening this aspect, and recognizing its potential role in CBDM is important. For example, introducing GIS/GPS-based techniques for mapping developmental needs as well as assessing risks would be immensely useful. It cannot only empower the community in terms of creating an early warning system, but also increases its ability to assess the extent of risk

Tool 8 :
How to play an effective role in the advocacy

- Building the capability to develop a database on the community – its changing demographics, status of physical infrastructure, facilities, socioeconomic status of households, inventory of skills, assets and resources within the community, extent of liability, status of natural resource base, larger changes in the environment and livelihood status
- Maintaining and updating databases within the community enables both micro and macro planning – both action and policy. It helps define priorities and sharpen areas of neglect
- The credibility of an accurate database enhances the credibility of the community worker and that of the community's representation of issues in different forum. Advocacy becomes effective and with the database, it becomes possible for the community to actively participate in the advocacy
- You have to become a credible conduit for feedback from the community to organizations and the State – especially on policy issues. Which policy mechanism is effective and which is not, has to be constantly assessed within the community; and a system for reporting the impact regularly, in

The credibility of an accurate database enhances the credibility of the community worker and that of the community's representation of issues in different forum



terms of quantitative and qualitative feedback to the State and Donors/Trainers/NGOs should be developed by the community worker

Tool 9 :

How to sustain the outcome of a CBDM process until the next disaster? How to sustain the ‘spirit of anticipation’

- Once the community defines what constitutes its crises , and what it considers a disaster , identify with the community all the skill sets and trainings required to manage it. This is a continuous process of socializing and re-socializing
- Capacity-building processes must address the communities’ need to manage and overcome more routine calamities, even while preparing them for the ‘predictable disasters’
- Increased abilities to manage smaller community crises effectively will generate faith in the basic CBDM processes. Since smaller and routine calamities/crises happen more frequently (it could even be snake bites), the institutional mechanisms such as committees, structures, systems, and norms set up within the CBDM programme, will be in a constant action and learning mould. Their skills and abilities will be called upon more frequently and they get repeated opportunities to demonstrate their role, responsibility and effectiveness
- Create a culture of annual rewards for those who uphold CBDM principles, and punishment those who violate them
- CBDM training and events must be incorporated and mainstreamed into the formal calendar and curriculum of the community and schools. You, as the community workers must identify the right opportunities to negotiate with the community organizations and schools to create the platform for inviting creative

interventions

- To ensure continuity of practices, structural mitigations and the like, it is necessary to develop services and enterprise around this. For example, after the initial period of awareness raising and generating a demand for cyclone-safety roof tile hooks, it is imperative that the right individuals within the community are supported to fulfill this need commercially. Creating a market and an enterprise around desirable CBDM features creates a stronger continuity and more propogators of the cause

Tool 10 :

How to ensure that capacity building processes undertaken by trainers are effective and sustaining

- Identify the right personalities within the community regarding who should be the recipient of the training. In disaster situations, it is not necessarily position or qualification that determines the efficacy of a person; it is certain personality types which play a proactive role in a calamity. Similarly, traditional skill sets need to be considered. And credibility within the community
- Ensure that the person selected for training is rooted within the community, has strong bondings in the area and with the community. It does not help to train someone who may seem credible and capable, but is planning to immigrate out of the area
- Do not get confused between ‘community’, ‘the vulnerable’. ‘committees’ and ‘cadres’. While trainings and consciousness raising is necessary with all the above, one must plan with the trainer as to what form of capacity building is necessary for the larger community, for the most vulnerable, for committee members and for specific cadres. Each is a subset of the other, and each has a specific role to play. Committees have to lay a

Increased abilities to manage smaller community crises effectively will generate faith in the basic CBDM processes

responsible decision-making role on behalf of the community. While cadres are task-oriented, focussed on specific skills and requirements of the community, the most vulnerable need special developmental inputs to make them more able partners in the CBDM. The community needs to be sensitized in order to be able to identify the most vulnerable, nominate committees for executing action plans and recognize special areas for which cadres may need to be developed

- Need for training and capacity-building in CBDM must gradually come as a demand from the community, often articulated through you. Only if there is a demand, will the process be sustainable
- The capacity-building programmes must have a balance of skill training (such as masonry, first aid, carcass disposal and surveying), information and knowledge (weather patterns, policies, resource linkages, seismic or cyclone safety and methods of flood proofing), and perspectives (on equity, sustainability, on man-environment relationship and community ownership). You must provide the necessary feedback, critique and follow-up on whether the community is receiving these balanced inputs, finding it effective and demanding more

**Tool 11 :
How to develop internal contingency funding**

- The community contingency fund is not a one-time contribution, but an ongoing, continuous replenishment by the community.
- It is important for the fund not to be static. However small in the beginning, the community must begin using it for smaller crises. The perceived use-value of the fund by the community increases subsequent participation and contribution.
- It is important that the fund is 'generated' by the community and not 'created'. The fund will sustain only if it is constituted by contributions from the community and not given by a donor
- The community fund does not always begin only with cash contributions. Community members could sell old stock and scrap to generate funds. Each family could contribute grain for example which can be collected, sold and converted to funds. It begins with small steps, depending on the economic levels of the community.
- The fund must be contributed to by all stakeholders - big or small. This ensures equity in decision-making. It also will ensure that the community is accountable to each other and is also making the main



It is important that the fund is 'generated' by the community and not 'created'

organizers accountable.

- The formation and capacity building of a responsible team/committee/council, which manages the fund on behalf of the community, is a critical area of implementation and capacity-building.
- One must try and ensure the active role of women in fund management. Not only because of their inherent skills of fund management, (amply demonstrated in numerous developmental programmes across the world), but also because of their ability to look at community interest from the point of view of 'family' needs.
- The practice of setting up contingency funds must be inherently paralleled to a similar practice in other development activities and the household practice of savings. The Community Contingency Fund cannot be developed in isolation. It will not be sustainable.
- Remember, idle funds attract internal conflicts. Funds must be regularly utilized for perceivable community emergencies - whether in the larger community, smaller sections or among the vulnerable.

Interventions

We have just seen the issues which emerge as areas influencing CBDM. We have also made an attempt to know what these factors entail and how to ensure that they are developed as positive and sustaining influences in CBDM.

However, CBDM is a development process, and as in all development processes, the community worker must know when to introduce what. Each issue has its own pros and cons, and as in development, the community has to be ready to accept and internalize what you want to introduce. Which means, that there is a pace to community readiness. They will differ widely in different socio-economic and political contexts. But, however much they may vary, there will always be clear, recognizable stages of intervention in CBDM, as different factors get introduced at different stages in the CBDM. Let us take a look at these stages



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Stages of Interventions

CBDM demands that there needs to be a timeless intervention. It is a process of re-socialization wherein a community begins with very low belief in its own ability to overcome vulnerability in a disaster and then gradually becomes alert and aware responders before, during and after a disaster. It is, however, a long journey with many stops and junctions. Through this journey, a good community worker will steer the community through various stations, determining when to stop, when to move on, when to chug along and when to accelerate. In six countries, the communities have experienced this journey and developed a road map. It would help to keep this road map with the community workers. Sustainability of CBDM, to underscore the point, is entirely dependent on the manner and extent of ownership, and participation of the community through the following nine stages:

- I Define the 'community' and identify the key stakeholders;
- II Undertake an assessment of the disaster situation, risks, hazards, socio-economic-political context, history of disasters and evolving coping mechanisms within the community;
- III Create belief and faith in their capacity and ability to stand up to disasters. The community is made to recognize that it has always been the first responder in a disaster. With more sustained inputs, they can reduce their own vulnerabilities;
- IV They begin taking responsibilities. And they become responsive to specific short-term and long-term issues, needs and requirements in the context of disasters and development;

- V Capacity-building is undertaken at different levels, in order to make the community not only responsible, but effective;
- VI Norms, mechanisms, community decision-making structures and systems are legitimized and formalized in order to nurture the 'spirit of anticipation' and make the CBDM a continuous process;
- VI Integrating disaster mitigation and management, learning and action with developmental needs of the community. Integrating CBDM and development planning, implementation and outcomes;
- VII Undertaking sustained advocacy on various issues and policies which impact upon the community, thereby creating a healthy relationship and mutual accountability between various stakeholders; and
- IX Assessing the level of participation empowerment, and sustainability within the CBDM through a set of indicators.



A good community worker will steer the community through various stations, determining when to stop, when to move on, when to chug along and when to accelerate

The timeline for a community worker to go through all the nine stages will vary in different contexts, and also depend on the training and experience that the worker has been through. However, in the best of situations, the process described above may take 2-3 years before it can become sustainable. It is important for the community worker to be committed to such a time-frame before initiating the first stage.

Key Indicators

For Participation and Empowerment of the Community within CBDM

- Ability to manage – plan, develop and maintain – common property resources, which include public infrastructure
- Existence and effective management of a community fund
- Transparent and accountable behavior vis-a-vis decisions and transactions. Ability to be accountable, and make accountable
- Extent of people participating from all sections in key community meetings. At least 60% participation
- Regular attendance and active participation by all committee members in committee meetings
- Increase in number of people within the community, who serve as skilled, informed or knowledgeable resource people within the

community since start of CBDM

- Number and nature of community norms and legislations developed by the community for ensuring safety of that community
- Existence and active functioning of customs or systems for generating people's contribution for developing common facilities.
- Ability to negotiate with State and execute State-owned implementation
- Availability and access by the community to equipment and tools in case of emergencies – example cranes, cutters, trawlers, etc
- Extent and nature of handling violation of codes and norms leading to higher risk within communities
- Extent of women's role in decision-making and management of CBDM processes
- Level of needs assessment skills within the community
- Extent and nature of demand for capacity building. Number of people within the community who have undergone various capacity-building processes



- Extent of change in socioeconomic and physical status of the most vulnerable families within the community. Level of their participation in decision-making and management of CBDM processes
- Level of functioning of basic developmental services in the community – especially health, water, sanitation, and education
- Proportion of external aid to internal contribution (or value of that contribution in terms of labor, finances, time or services)
- Last, but not the least, the extent to which a ‘community organization’ has emerged and evolved, which sets its own agenda, and owns it, is a key parameter

The challenges and difficulties that you may face in implementing or introducing the 11 issues at different stages are numerous. Much will depend on the level of development intervention that the community you work with, has been exposed to. Much will also depend on the overall commitment of the implementing organization to the goals of CBDM. Many other unforeseen difficulties, such as political instability, recurring calamities within short time frames, inadequate State policies for disaster management, ethnic, class and community conflicts are potential hindrances which may be entirely

outside the control of the community worker.

However, the biggest challenge to the community worker is to integrate CBDM with existing developmental goals of the community, and institutionalize CBDM processes within community organizations. The challenge will be deeper if the community is not exposed to any developmental activity. This is where the various stakeholder organizations need to assess the development status of the community first, develop a developmental agenda, if necessary, for the area and its people, before initiating CBDM.

As we reach the end of the tools for community workers, it is suggested to all potential users, that, an indicator of one’s empowerment as a community worker in CBDM, will be one’s ability to improvise upon this tool, and create your own set of tools for sustainable CBDM.

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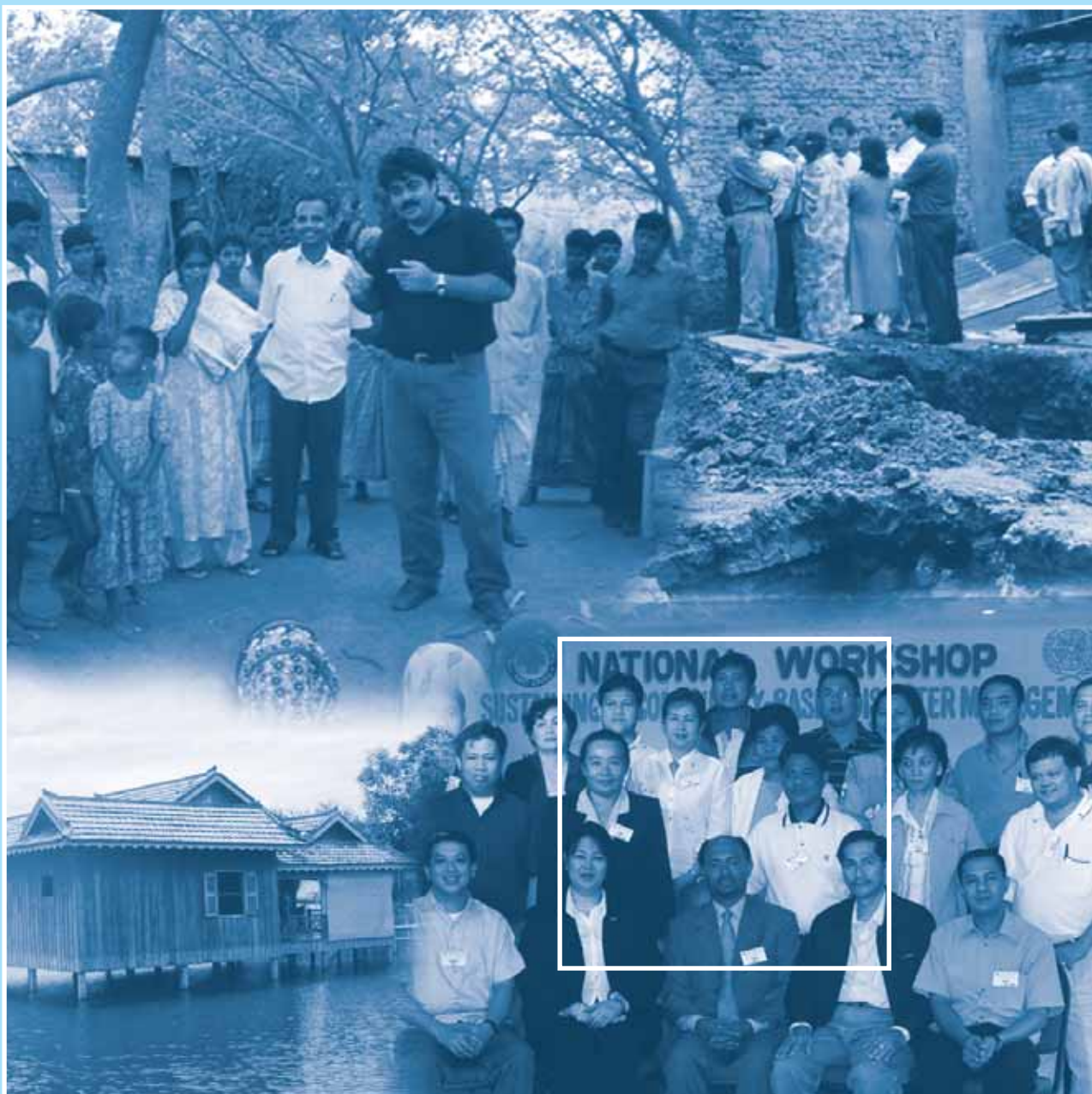
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■ Appendices



APPENDIX-1

Glossary of Terms

Capacity (Capability) - A combination of all the resources and knowledge available within a community, society or organisation that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, intellectual, political, social, economic, and technological means as well as individual or collective attributes such as leadership, co-ordination and management.

Coping capacity-The level of resources and the manner in which people or organisations use these resources and abilities to face adverse consequences of a disaster. In general, this involves managing resources, both in normal times, as well as during adverse conditions. The strengthening of coping capacities usually builds resilience to withstand the effects of natural and other hazards.

Disaster-A serious disruption of the functioning of a community or a society causing widespread human, material, economic and/or environmental losses which exceed the ability of the affected community or society to cope using its own level of resources. Although disasters are generally categorised as natural or manmade, recent understanding of these events shows that most “natural disasters” are also caused by human interactions with environment and nature, thus they are not purely “natural”. The term natural disasters, however, are commonly used to refer to events that are triggered by natural hazards. A disaster is a function of risk process resulting from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk.

Disaster (risk) reduction-The conceptual framework of elements considered able to minimise or reduce disaster risks within a community or society, to avoid (prevention) or to limit (mitigation and preparedness) and to manage (emergency response) and recover from the adverse impacts of natural and manmade hazards, within the broad context of sustainable development. For simplicity, UNISDR uses the phrase disaster reduction.

Disaster risk management-The systematic management of administrative decisions, organisation, operational skills and abilities to implement policies, strategies and coping capacities of the society and communities to lessen the impacts of natural hazards and related potential environmental hazards. This comprises all forms of activities, including structural and non-structural measures to avoid (prevention), to limit (mitigation and preparedness) adverse effects of hazards and/or to manage (emergency response) and recover from the consequences of the event.

Early warning-The provision of timely and effective information, through identified formal and informal institutions and communication network that allows individuals exposed to a hazard, to take action to avoid or reduce their risk and prepare for effective response. Early warning systems include three primary elements

- (i) continuous monitoring and public information dissemination about the hazard/s,
- (ii) forecasting of impending occurrence of hazard/s event/s,
- (iii) processing, formulation and dissemination of warnings to political authorities and population who should undertake appropriate and timely actions.

Emergency management -The organisation and management of resources and responsibilities for dealing with all aspects of emergencies, particularly preparedness, response and recovery. Emergency management involves plans, structures and arrangements established to engage the normal endeavours of government, voluntary, private agencies and local communities in a comprehensive and co-ordinated way to respond to the whole spectrum of emergency needs. Emergency management is also known as disaster management.

Hazard-A potentially damaging physical event, phenomenon and/or human activity, which may cause the loss of life or injury, property damage, social, economic disruption and environmental degradation. Hazards can include potential conditions that may represent future threats and can have different origins: natural (geological, hydro-meteorological and biological) and/or induced by human processes (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects. Each hazard is characterised by its location, intensity, frequency, probability and its likely effects/impacts.

Mitigation-Structural (physical) and non-structural (non-physical) measures undertaken to protect and/or strengthen vulnerable elements to minimise the adverse impact of natural hazards, environmental degradation and technological hazards. Elements of important consideration include population, livelihood, settlements, and basic social, economic and institutional services at the primary level and development investments and environment at the secondary level.

Preparedness-Activities and measures taken in advance by people and organisations to ensure effective mobilisation of response to the potential impact of hazards, including the issuance of timely and effective early warnings, the temporary removal of people and property from a threatened location and the support to indigenous coping capacity of the population at risk.

Prevention-Activities and/or physical measures to provide outright avoidance of the adverse impact of hazards or the means to control the hazards at their source whenever possible. Due to unpredictability and magnitude of most natural hazards, prevention is either costly or impossible. However, most human induced hazards and other types with elements of human interaction with nature are oftentimes preventable.

Recovery- Traditionally, actions taken after a disaster with a view to restoring the living conditions of the stricken community and society to its normal and/or pre-disaster conditions. However, recovery (rehabilitation and reconstruction) is an opportunity to develop and apply disaster risk reduction measures by encouraging and facilitating necessary adjustments, based on lessons learned and better planning and practices to reduce disaster risk.

Relief / response- The provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration. In the relief stage, change in people's perception and skills development leading to acceptance of and practice of disaster reduction can be achieved, through participation in assessment, planning and implementation.

Risk-The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural and/or human induced hazards and vulnerable conditions. Conventionally, risk is expressed by the notation Risk = Hazards x

Vulnerability/Capacity. It is important to consider the social contexts in which risks occur and that people, therefore, do not necessarily share the same perceptions of risk and their underlying causes.

Vulnerability-A set of conditions and processes resulting from physical, social, cultural, political economic, and environmental factors, which increase the susceptibility of a community to the impact of hazards.

APPENDIX-2

Summary of Case Studies

Bangladesh

Floods in Bangladesh are almost an annual feature of people's lives that is to a large extent due to its geographical location and natural drainage system. The major river systems, including the Ganges, the Brahmaputra and the Meghna, pass through Bangladesh to reach the Bay of Bengal. The country bears the brunt of excessive rainfall, particularly in the upper catchment. Floods inundate a substantial part of Bangladesh every year from July to September. In a "normal" year about 20 per cent of the country is affected by floods but under extreme conditions as much as 60-70 per cent would be inundated. Pervasive flooding in the low-lying areas of Bangladesh creates perennial challenges for households and their environment. Even in years of average flooding, many households get inundated and income-earning opportunities become scarce during the flood season.

Generally, a major part of the country suffers due to floods but the problem is acute in flood plains in the main river channels (locally called as chars) . Normal monsoon inundation tends to last for weeks rather than months, but floods can occur several times during the monsoon season. In chars, erosion is also an important hazard. Villages are less permanent, as households move to adjacent areas when erosion occurs. In general, chars experience mid-level flooding every three years. Floods have several impacts on the lives of char dwellers. Direct impacts are the loss of lives, livestock and poultry, damage of houses, household assets, boats, standing crops and lack of employment opportunities. Indirect impacts are linked to the exposure to diseases, malnutrition, starvation and unhygienic environment.

The disastrous floods of 1988 demonstrated the need for a more comprehensive flood plain planning. As a result, the Government of Bangladesh with multi-donor support, launched the Flood Action Plan (FAP) in order to formulate and implement technical, economical and environmental rehabilitation and protection measures to counter the adverse effects of annual floods throughout the country. Flood proofing is defined as: The provisioning of long-term, structural or non-structural measures that can be taken by individuals, families or communities to mitigate the effects of floods. CARE Bangladesh with the financial assistance from the USAID undertook a five year (since fiscal year 1999) Flood Proofing Project. The project is being implemented through a partnership arrangement by CARE, Local Government Engineering Department of the Government and local partner NGOs and Union Parishads (UP) in, 1000 communities in active flood plains in 20 high flood risk sub-districts.

Based on these propositions the Flood Proofing Project (FPP) was designed and the work began in October 1999, It is due to finish in September 2004. The project is community-based in approach and strategy and includes a wide range of programming components like community mobilization and awareness, household flood proofing measures, small scale agriculture, social forestation, infrastructure and community resources management, and income and livelihood protection. The major activities of the project include:

- Community mobilization and training
- Structural mitigation measures:
- Small scale agriculture, social forestation & erosion control measures

6. Char is the Bengali term for a mid channel island that periodically emerges from the riverbed as a result of accretion. These areas are subject to regular flooding. Chars are located within the active flood plain of the major rivers. Active flood plain is characterized by more frequent, deep and severe flood.

The project has significantly changed the livelihoods of the char people. In recent discussion sessions, the communities spontaneously identified the difference that occurred due to the project interventions. The first thing they mentioned was that now they had a committee (Local Project Society) whose presence reminded them of the Flood Preparedness and Management Plan. They could share their problems and its solutions. To express the changes measurably some quantitative references are drawn from Impact Assessment Surveys conducted in the last two years. An annual post-flood survey (follow-up survey by nature) of the project, documented higher benefits among the poor households (direct participant households). The post-flood survey of FPP project also assessed the knowledge level of the communities, which participated in the project's flood preparedness and management orientation courses. People's life-styles have also changed. In the baseline survey, it was found that flood and flood-related problems were the major cause of temporary migration for the char land people.

The sustainability aspect becomes visible within the project's life. The institutionalization mechanism is taking the right shift. Local Project Facility (LPF) members feel that their social status in the communities has increased significantly – they receive more respect and find that others sought them out for technical support or advice on a variety of issues. The most notable impact as cited by the people was after the implementation of flood proofing interventions different service providers were intervening in the communities. The reasons they mention were: Their habitat became secure, resource base was increasing, over economic portfolio of the community has improved and people got knowledge and motivational power etc. The service providers counted these changes as feasible for investment. Gender and women empowerment are essential elements in the wider project landscape. Its effort of integrating and ensuring women's active participation at every level of the project cycle worked effectively. The mother's club members and community-based volunteers (CBVs) have emerged as change agents within the community.

Major lessons learned in the case study are as follows:

1. CBDM needs effective planning with community participation
2. LPS and other participating organizations with clear vision, management capacity and adequate knowledge and information are fundamental for the success of CBDM
3. Although it requires flexibility in time, community empowerment and communication help to achieve sustainability in CBDM
4. Integration and empowerment of women are keys to sustainability in CBDM



5. A holistic secure-livelihood approach enhances sustainability
6. Infrastructure development is important as much as other CBDM activities
7. Facilitating LPS and forming networks among the local organizations are important aspects in high risk areas
8. The idea that “disaster victims prefer the outside assistants more” is not true
9. The legal status of LPSs appeared as a crucial issue for long-term sustainability

Cambodia

Cambodia is situated in South East Asia and is bordered by Vietnam in the east and northeast, the north and Thailand in the northwest and west. Geographically, Cambodia is a flat plain and a plateau mountainous country. It has two main water sheets: The Mekong River and the Tonle Sap Lake including a number of small river tributaries. Cambodia is one of the most severely disaster-affected countries in the region. The primary natural disasters in Cambodia are floods, drought and forest fires. Cambodia is naturally susceptible to annual flooding during the main monsoon season along two major watersheds, the Tonle Sap Lake and the Mekong River. Localized flooding caused by monsoon thunderstorms is also a serious threat as they periodically sweep the country. Severe floods hit the country in 1961, 1966, 1978, 1984, 1991, 1996, 2000 and recently in 2001.

In the midst of recovering from the floods of the preceding year, the country was again affected by floods in the year 2001 signaling a worsening and more frequent occurrence of flooding. In addition to the floods, the country was also affected by drought particularly in the Provinces of Battambang, Pursat, Prey Veng, Kompong Speu, Kampong Cham and Svay Rieng which experienced insufficient rainfall throughout the year. The lack of drinking water affected not only the human population but livestock as well. In most of these areas, the farmers could not plant rice because of the unavailability of seeds that were damaged during the previous year.

In addition to the damage to capital assets, agricultural crops and infrastructure, there are a number of various social, psychological and economic losses suffered by the population affected by the disaster. Delivery of public services was also disrupted, not to mention the destruction of personal and family assets. In the areas visited under the evaluation for example, household income was reduced both in the short as well as in the long term. For a country like Cambodia, the impact of disasters can negate the achievements of previous decades of favorable economic growth and development. It is in this light, that the Cambodian Red Cross (CRC) has been implementing a Community Based Disaster Preparedness Program (CBDP) in several of the country's provinces. It is also important to note that the Royal Government of Cambodia has only had a relatively young history of governance and has only recently begun to establish institutional arrangements for coordination and operation of disaster management efforts.

After the floods in 1996, the CRC conducted a flood mitigation workshop among key personnel from ten of its provincial branches. Participants at the workshop identified the most vulnerable areas along the Mekong River. In 1998, funding from the USAID was received and made possible the design and initial implementation of CRC's Community-Based Disaster Preparedness (CBDP). Technical support was provided by the disaster preparedness delegates from the International Federation of the Red Cross (IFRC), the Asian Disaster Preparedness Center (ADPC) and PACT.

Major activities undertaken with regard to CRC's implementation of its CBDP began with a preparation phase consisting of pre-operations activities at CRC's Disaster Management Department(DMD) and at the provincial branches, which include:

1. Practice on the training methodology to trainers for self-preparation.
2. Master plan designs for the CBDP implementation program.
3. Setting up financial management process according to the requirement of donors.

Implementation of the CBDP programme has shown significant benefits and impact on the lives of the villagers. These benefits are largely due to the implementation of small mitigation projects, what is called as "micro-solutions" or micro-projects (e.g., culvert, road raising, development or improvement of safe areas, etc). Besides reducing the physical vulnerability of people in the villages, implementation of the CBDP program has also resulted in the increase of their social and organizational capacities. While this is extremely difficult to quantify, it is nevertheless just as important as the physical mitigating effects of the project. Increasing the capacities of people in the social, organizational and attitudinal/motivational aspects has reduced vulnerabilities over the time.

Major lessons learned during the case study are as follow:

1. CBDM programmes should have clear goals and objectives and they should not focus on one particular hazard
2. CBDM programmes are better to incorporate with structural mitigation and monitoring systems at the community level to have maximum results
3. Establishment of training methodology and development of curriculum benefit the CBDM programs
4. Knowledge and technology transfer from experts to community is important
5. Training teams in CBDM programmes should also have continuous opportunities to develop their experience and skills
6. Networks among stakeholders are important
7. Community based action plans and training improves community's problem solving skills
8. Constant reviews by experts are necessary for improvement of CBDM programs



India

In 1999, a cyclone of unprecedented intensity crossed the state of Orissa, India, on 29 October. The cyclone whirled through Orissa battering its coast and leaving behind a ghastly scene of massive death and destruction. Twelve Districts of the state were affected by the cyclone which uprooted trees, damaged uncountable houses and vegetation, disrupted communication systems and killed about 10000 people. The cyclone caught everyone unprepared. This event of massive loss of lives and properties therefore, changed the state's focus on preparedness with respect to disasters. An effort was made to institutionalize the whole process of managing disasters, leading to the formation of an autonomous organization called Orissa State Disaster Mitigation Authority (OSDMA).

The post-super cyclone rehabilitation phase led to linkages with many UN agencies, multilateral and bilateral donors and nongovernmental organizations, which brought in valuable insights, experiences and monetary support. One of the important programmes initiated in the post-super cyclone rehabilitation phase by OSDMA was the 'Orissa Disaster Management Project' in March 2001, supported by UNDP and DFID under which Community Based Disaster Preparedness Plans (CBDP) were formulated. The program was carried out in 10 blocks of Orissa.

Major components of the project were: Preparation of Disaster Management Plans at village and block levels; Raising awareness of stakeholders on natural disasters through information and education campaigns; Formation of Disaster Management Committees ; Formation and training of task forces with specialized training in villages ; Creation of Community Funds ; Mock Drills to sustain training and mapping activities ; Installation of early warning and alternative communication systems; Construction of mounds in low-lying areas and networking of institutions and individuals for effective disaster management.

Under the CBDP project, many direct activities were undertaken. Many micro-projects – such as establishment of block-level information centers, involvement of the corporate sector and setting up of HAM clubs-were related activities. Following were the major activities:

- Block Disaster Management Plan
- Formation of Disaster Management Committee
- Risk and Vulnerability Mapping
- Training of Block Disaster Management Committee
- Formation of Gram Panchayat (village level) Disaster Management Committees
- Volunteers Training
- Community Contingency Plan
- Block Disaster Information Centres
- Village Disaster Management Committees and Task Forces

The project has led to the creation of useful IEC material. These include manuals on preparation of community and block level contingency plans, training for task forces, posters, calendars, documentation of traditional coping mechanisms and how they can be improved and special forums on promotion of safe construction technologies.

The results of the exercise carried out under the project were put to the test during the 2001 floods in the state. The communities, unlike earlier, were able to organize and act quickly due to the presence of trained volunteers who were aware of the actions that

In addition to the public recognition of community efforts that have helped in boosting community confidence, high sensitivity was visible during the interactive meetings held with the community in various districts.

Major lessons learned in the case study are as follows:

1. With a wide-scale and comprehensive approach, a project becomes ‘the best practice’.
2. New challenge is to merge this exercise with development
3. Other development work at the local level should be integrated with CBDM
4. Although this could be a big challenge, the coordinating agency could seize projects to gain government recognition and cooperation
5. The approach needs to be incremental. The most appropriate process would be the initiatives with series of pilot projects
6. Because disasters are unpredictable, it is important to maintain the projects and people’s awareness of disasters

Indonesia

Indonesia is an archipelagic country that is part of the Pacific Rim and a place where four tectonic plates meet, i.e. Indo-Australian Ocean Plate, Eurasia Continental plates, Pacific Ocean Plate and Philippines Plate. The geodynamic position and the interaction of those four plates have made Indonesia one of the highest earthquake-prone countries in the world. According to the Indonesian Seismic Zone, approximately 290 cities (60% out of 481 Indonesian cities) are located in the high seismic zone. Some recorded devastating earthquakes occurred in Indonesia in the past have destroyed cities and village infrastructure causing loss of life, property and material and suffering to the community. In June 4, 2000 at 11:30 pm, Bengkulu, a small growing city with 313,000 people, was hit by a strong and devastating earthquake measuring a 7.3 on the Richter scale with its epicenter about 33 km in depth and 110 km south east of the city. Most of the damaged houses were not only from non-engineered type of houses(damages were worsened by modernization in housing life style, i.e. having masonry houses, which elevated the social status) but also from “real estate” sectors, where the quality of houses which was weak as a result of corruption. Elementary schools were severely affected by the earthquake. About 85% (89 of of the 105 schools) were damaged.

In most earthquake disaster situations, several factors attributed to personal injuries and loss of life and property during earthquake are partly due to lack of understanding about the disaster and its preparedness measures in anticipating such disaster among the community. In many cases, some buildings and houses collapsed or were damaged due to the poor construction quality affected by defective design and defective work in terms of seismic safety measures. Many injuries are often caused by falling debris. By experience, the most critical stage of that situation is the first 72 hours when the community, which is isolated and blocked from any access, consequently is expected to help each other in while waiting for rescue. Community and Disaster are two factors that cannot be separated. When there is disaster the community members will naturally be there to help each other. The culture to help others is the foundation in dealing with disaster management. The community participation in disaster management can be in the form of “to part” or “being part”, meaning one is more proactive than the other.

Therefore, the Institut Teknologi Bandung – ITB-with the financial assistance from several different national and international partners has designed and implemented a CBDM project for the city of Bengkulu. It takes a holistic approach in mitigating future

of the community to solve the current adverse impacts of the earthquake, since June 2000.

The rationale behind the project is that any city recently stricken by a strong and destructive earthquake is more receptive to mitigation initiatives. It means that the awareness of it would have been inherent among all components of the community; as the awareness is the most important step to open one's mind toward the importance of having future disaster risks mitigated structurally and/or non-structurally. However, the vision of the project is to save the lives of the Bengkulu people from future earthquakes. The goal of the project was to use the window of opportunity to promote earthquake disaster mitigation as intervention initiatives in post-earthquake CBDM replicated from pre-disaster mitigation initiatives done by ITB and partner institutions for Bandung since 1997 .

The Study Group on Earthquake Disaster Risk Mitigation of ITB has initiated collaboration with other interested institutions, which becomes partners to work with the community of Bengkulu city. These are national as well as international partners, i.e. Indonesian Ministry of Research and Technology, Indonesian Ministry of Education, ADPC/USAID OFDA through IUDMP, UNCRD and the Private Corporate Sector.

Major activities include:M4

- Public awareness activities
- Training on structural mitigation
- Training on non-structural and structural mitigation
- Earthquake resistant school prototype design
- Building an earthquake resistant simple house

Major lessons learned in the case study are as follows:

1. A community with a recent experience of disaster is more receptive to CBDM initiatives
2. When a community and the government are supportive to disseminate their experiences, its members become more interested in replicating their experience
3. Strong leadership and political support from the Mayor is important
4. Establishment of networks among various organizations and institutions is a key element



5. It is necessary to change most people's belief that 'emergency response' is more important than 'mitigation'
6. Lack of accurate data and information affects the accuracy and applicability of the analysis
7. It is important to develop of common understandings of community members and administrators toward collaborative works in CBDM with limited resource

Nepal

Nepal is located the Himalayan range, which is a product of the continental collision of the Eurasian and Indian plates, initiated about 40-55 million years ago. The collision was followed by subduction of the Indian plate beneath Tibet, which continues even today at an estimated rate of about 3 cm per year. The subduction results in accumulation of tectonic stresses in crustal rocks. Earthquakes occur when the locked energy is released in the form of geological faults when the rock can no longer take the strain. Presence of the ever-rising Himalayan range is evidence of the subduction and the earthquake process active in the Himalayas in the recent geological past. Nepal, actually has a long history of destructive earthquakes. In this century alone, over 11,000 people have lost their lives due to earthquakes in Nepal. The last earthquake in active social memory was the 1934 Bihar-Nepal Earthquake, which shook the Kathmandu Valley, the country's political, economic, administrative and cultural capital, and destroyed 20 % of the valley's buildings and damaged another 40%, including many historical sites. This earthquake was not an isolated event. Three earthquakes of similar size occurred in the Kathmandu Valley in the 19th Century: ___?? in 1810, 1833 and 1866 AD. The seismic record of the region, which dates back to 1255, suggests that earthquakes of this size occur approximately every 75 years, indicating that a devastating earthquake is inevitable in the long term and likely in the near future.

Earthquakes are thus an unavoidable part of the Kathmandu Valley's future, just as they have been a part of its past. However, a large earthquake near the Kathmandu Valley today would cause significantly greater human loss, physical damage and economic crisis than caused by past earthquakes. With the valley's burgeoning population of about 2 million people, uncontrolled development and a construction practice that has actually degraded over time, the valley, is becoming increasingly vulnerable to earthquakes with each passing year. The Kathmandu Valley has an urban growth rate of 6.5 % and has one of the highest urban densities in the world. Nepal developed a building code in 1994, but its implementation has not been institutionalized and more than 90 % of urban construction is done without the input of an engineer and without considering seismic forces.

The decision of the National Society for Earthquake Technology (NSET) to implement the Kathmandu Valley Earthquake Risk Management Project (KVERMP) was aimed to improve this situation, and start a process towards managing the earthquake risk in the Valley. The KVERMP was implemented during 1997-2001 jointly by NSET and GeoHazards International (GHI), as part of the Asian Urban Disaster Mitigation Program (AUDMP) of the Asian Disaster Preparedness Center (ADPC), with core funding by the Office of Foreign Disaster Assistance of USAID.

Participation of the stakeholders started right from the project design phase: Representatives of most of the government and non-governmental institutions in the Kathmandu Valley related to disaster management gathered in a project design workshop in March 1997, and chalked out the objectives and contents of KVERMP, as

- 1) to evaluate Kathmandu Valley's earthquake risk and prescribe an action plan for

- 2) to reduce the public schools' earthquake vulnerability;
- 3) to raise awareness among the public, government officials, the international community resident in Kathmandu Valley, and international organizations about Kathmandu Valley's earthquake risk; and
- 4) to build local institutions that can sustain the work launched in this project. The other components include: School Earthquake Safety Program (SESP) and Earthquake Awareness Program.

The outputs included:

- Raised Awareness and Changed Mindset
- Establishment of a System of Retrofitting
- Establishment of the Nepal Forum for Earthquake Safety (NFES)
- Implementation of Building Code
- Increased Demand for Academic Courses in Disaster Management and Earthquake Vulnerability Reduction

Major lessons learned in the case study are as follows:

1. It is important for all organizations and every individual to understand their roles and responsibilities in CBDM projects
2. Transparency of activities and dissemination of knowledge and information encourage people's participation in activities
3. Raising awareness is a crucial component in every activity and project
4. CBDM efforts need stable financial resources
5. 'What is accepted by the community' is more important than 'what is necessary'
6. Low-cost and low-technology are more acceptable and sustainable

Philippines

The geographical location and physical environment of the Philippines make the country prone to various kinds of hazards including earthquakes, volcanic eruptions, typhoons, storm surges, floods, drought, tsunamis and landslides. The Philippines is located along the 'Pacific Ring of Fire', where the continental plates collide causing periodic earthquakes and volcanic eruptions. The Philippines archipelago is also located at the western edge of the Pacific Ocean and is, therefore, regularly visited by typhoons and monsoon rains, which cause floods, storm surges, landslides and other forms of destruction.



Among the factors that contribute to the occurrence of flooding in the municipality of Guagua is the fact that the Province of Pampanga is home to one of the largest watershed areas in the whole island of Luzon. The position of the municipality near the Pampanga river delta also underlies its susceptibility to flooding. Furthermore, the municipality is located in a low-lying area with a gentle slope that serves as a catchment area of several large river systems including the Pampanga River and the Pasac-Guagua River just prior to their reaching the South China Sea.. The flooding is triggered by typhoons and rains which regularly occur during the wet or rainy season. The 1972 flood in the region (one of the worst calamities to hit the Central Luzon region), for example, was primarily due to combined effects of monsoon rains and typhoons.

This was very much the situation in 1988, when the quiet municipality of Guagua located in the central Luzon province of Pampanga, experienced yet another wave of flooding brought about by the annual arrival of typhoons and monsoon rains. This time, however, members of the local business community advocated and lobbied with the municipal mayor to address the perennial flooding problem which had begun to affect the central business district located in the heart of the municipality. The municipal mayor responded by calling for municipality-wide meetings and consultations to come up with an acceptable course of action and gain the acceptance and support of its citizens for implementation of possible solutions.

The origin or roots of community participation in the municipality's disaster management can be traced to a local business sector lobby in 1988 for a more concrete and effective response from the local government to address a worsening flooding problem. Their primary objective and motivation was simple – economic and businesses losses were rising to unacceptable levels as a result of the annual typhoon and rain-induced flooding. Significantly, the flooding had, for the first time, started to affect the central business district located at the heart of the municipality. While this process initiated the local government-community dialogue, the primary impetus for the continuation of community disaster response efforts and its eventual development into a full-blown municipal disaster management programme came from the obvious need for concerted action in the face of the magnitude and scale of the devastation and impact caused by the 1991 volcanic eruption of Mt. Pinatubo particularly the certainty of the occurrence of future disaster events



Major activities include:.

- Community Participation and Involvement.
- Early Warning and Communication
- Community Mobilization and Information Dissemination
- Disaster Rescue, First Aid and Retrieval
- Engineering and Infrastructure Support
- Capacity Building and Training
- Policy Development

Major lessons learned in the case study are as follows:

1. People act more decisively when they fully understand the nature of hazards or when they are actually affected by the hazards
2. Institutionalizing the community and the private sectors can result in more sustainable disaster management programmes
3. Disaster management programmes and activities are successful when they are part of the socio-economic development efforts of the community
4. Transparency is a key factor in order to obtain community support and participation
5. Private or business sectors can be effective leaders to initiate projects

APPENDIX-3

Field Testing of Guidelines and Tools

Following is a summary of the comments received from different professionals around the world on the draft version of the tools and guidelines:

1. The basic concept of community involvement was there from several hundreds of years ago. However, a formal CBDM concept started in the mid-1980s, and become operational in the 1990s. After any major disaster, it is the family and neighbors who help the victims the most. This was seen in Kobe earthquake, and in many other recent events, including cyclones and floods etc.
2. Sustainability of CBDM is a major issue, which needs attention and focus. UNCRD has taken the first initiative to study systematically the root causes of sustainability of CBDM initiatives through successful case studies from different parts of Asia, and also incorporating the valuable lessons of Kobe Earthquake.
3. In this process, UNCRD has undertaken case studies and intensive analysis of six major initiatives in Bangladesh, Cambodia, India, Indonesia, Nepal and the Philippines. The common elements of sustainability issues were analyzed, the first draft of the guidelines and tools were prepared.
4. These tools and guidelines were then tested in Bangladesh, Philippines and Viet Nam, and the results were presented in the workshop. Beside, there were comments and suggestions from resource persons and experts from government, NGO and international organizations from different parts of the world, including Africa and Latin America. These comments will be incorporated, and the final version will be prepared by the end of March 2004.
5. This document is considered as a landmark document for CBDM, and will be widely distributed in the 2005 World Conference in Kobe. The experiences of the Kobe earthquake are reflected in the form of community business and old-age problems.
6. The participants of the workshop highly evaluated the guidelines, and commented that it was the first move to cover a range of wide stakeholders from national government and policy makers to local government and community workers. The CBDM is only sustainable when all these stakeholders work together to serve the needs of the community.
7. Participants suggested that the document with its graphics and illustrations are very convincing to the local people. There was always a challenge to convey the right message to the end-user, which, with the current document, will become easier.
8. Many countries like Bangladesh, Viet Nam, Indonesia, expressed its willingness to translate this document into the local language, and circulate it widely. A representative from the West Indies strongly suggested that it should be translated into Spanish for use in Latin America and the Caribbean Islands.
9. Many country representatives commented that the final document would be formally presented to their National Government Disaster Management Committee, and with their approval, it should be mandatory to use it at different levels.

Bangladesh

Flood Proofing Project of CARE Bangladesh tested the tools in one of the flood vulnerable areas in the Serajganj district of Bangladesh. Field Testing Methodologies include:

- Focal Group Discussion (FGD) with Community Based Organizers at Char Sachalia of Sirajgonj

- FGD with Local Government (i.e. UP Chairman, Members, Local elites) at Char Masra of Sirajgonj
- FGD with Local Disaster Manager at Sirajgonj

From the process of field-testing, some of the important factors are found, that are very much relevant with the perspective of vulnerable areas in Bangladesh and these factors will enhance the sustainability. These are:

Factors That Will Enhance Sustainability

Promote and strengthen a “culture of coping with crisis” and a “culture of disaster reduction”

Blending and incorporation of people’s perception on vulnerability assessment

Motivation for initiation and sustainability of the CBDM based on perceptions and choices that community and supporting agencies make

Genuine people’s participation within capacity building objectives

Well-delivered training inputs in accordance with the objectives of the project and needs of the community for training

Wider stakeholder’s involvement and participation

Accumulation of physical, technological and economic assets to reduce vulnerability

Results and summary of community workshop and feedback from the field can be summarized as follows:

Lesson Learned from Community on Sustainability in CBDM

- Promote community managed disaster preparedness
- Establish and strengthen local committee for disaster management
- Participation of all community people and developing fellow feelings
- Wider participation of all stakeholders
- Access to information as well as promoting indigenous knowledge and technologies
- Identification of local resources and comprehensive plan for disasters
- Emphasis on collective efforts to disaster management
- Empowerment of community people/committee on disaster Management
- Social initiatives through community mobilization

Lesson Learned from Local Government on Sustainability in CBDM

- Forming of village-based disaster committee (bias-free) and strengthening its capacity
- Recognition of individual initiatives and promoting them
- Economic viability and local resource mobilization
- Wider participation of stakeholders
- Networking of community organization with other service providers
- Promote and developing local volunteers, specially from the youth group
- Create funds for crisis period and provision of contingency plan
- Access to information for all
- Ensure involvement of the community at planning and implementation stage

- Increase capacity on disaster management

Lesson Leared from Local Disaster Managers on Sustainability in CBDM

- Promote indigenous coping mechanism
- Establish and strengthen local committee for disaster management
- Promote and strengthen sustainable community-based organization
- Wider participation of stakeholders
- Integration of disaster management activities with planning and budgeting of normal development programs
- Preserve indigenous knowledge and technologies and disseminate
- Develop volunteers (group/individual) and ensure women's participation
- Ensure ownership of the community in disaster management
- Livelihood assessment and initiating appropriate income generating activities
- Increase capacity of the community people on disaster management

Philippines

The Philippine National Red Cross formed a Study Team to conduct research and field-testing for the UNCRD Tools and Guidelines in Sustaining the CBDM. The research generally sought to enhance the guidelines and tools that would address practical needs and concerns of communities, disaster workers and managers towards a sustained CBDM. Specifically, the research intended to:

1. Review the usability and suitability of the UNCRD's CBDM guidelines and tools in three selected communities with trainers and community-based organisations
2. Solicit comments from the central government disaster managers and policy makers on the applicability of the tools
3. Formulate action plan for local government's capability building and application

The research adopted the principles and techniques of participatory rural appraisal (PRA) or participatory learning and action (PLA) that involved different disaster management stakeholders such as community workers, community-based organizations, local government units and national disaster managers and policy makers. Specifically, the research undertook interviews with concerned disaster actors both at the national and local levels, focus group discussions, community workshops and the holding of the national workshop for dissemination and likewise to validate the findings and recommendations for CBDM sustainability.

Specifically for the community workshops, the participants involved members of community-based organisations such as the Barangay Disaster Action Team (BDAT) and Community-Based Disaster Response Organization (CBDRO), Barangay officials, community workers particularly coming from the service providers. Areas covered by the community workshops are: Pinagbayanan, Calauag in Quezon province, Sta. Catalina, Minalin, Pampanga and the municipality of Obando Bulacan that periodically experience typhoons, lahar and flooding, respectively.

National and local disaster managers and policymakers were also involved in the study specifically the member agencies of the National Disaster Coordinating Council (NDCC) including the Office of Civil Defence, the Department of Social Welfare and Development (DSWD), Department of Interior and Local Government (DILG), and selected national and local-based non-government organisations and concerned local government units.

The study, including coordination activities took more than three months to complete. Though it focused on the validation of the CBDM guidelines and tools, it also provided opportunities to PNRC and the involved community organizations, in particular, in reviewing and assessing past CBDM activities and forwarding recommendations for strengthening the organization. Likewise, it helped community organizations to come-up with an updated situational analysis of their respective communities as basis for program development.

Generally, the various factors and points mentioned in the guidelines and tools are “very useful” to further advance the CBDM practice in the Philippines. It would provide the disaster manager players with reference in terms of planning, implementation, monitoring and evaluation of CBDM undertakings. However, it need more elaboration specifically on the “how” in more simplified terms and statements to make it more user-friendly.

Viet Nam

In Vietnam, the UNCRD entered into a partnership with the Canadian Centre For International Studies and Cooperation (CECI), an International NGO working in 15 countries including Viet Nam, to implement the field-testing of the CBDM guidelines and tools. The CECI has a vast experience in managing projects on Community Based Disaster Management, Adaptation to Climate Change, Emergency response, etc. The Capacity Building for Adaptation to Climate Change (CACC) Project of CECI has conducted field tests in its project areas in Central Viet Nam with the participation of various local and international institutions dealing with disaster mitigation activities.

The duration of field tests was 3 months (September-December 2003)

Field Testing methodology include the following:

- Questionnaire survey with key government agencies and NGOs
- Interview with local and national level disaster managers
- Focus group discussion with local trainers and community workers
- In-house workshop with CACC project team who are currently implementing CBDM activities in the project areas
- National workshop with national level government agencies, International NGOs and UN agencies to validate the field test findings as well as to get more feedback

Every evaluation participant indicated that the CBDM guidelines and tools are applicable in Viet Nam. Subject to the modification based on the field test findings, these guidelines and tools can bring positive change in sustainable community-based approach in disaster management. The specific comments of the evaluation participants are:

- Grass-roots level approach is gaining favor in Viet Nam. It is essential at this stage to establish country-specific guidelines following standard CBDM guidelines to make grass roots initiatives successful
- Government policy on disaster management also focuses on local level participation and long term sustainability⁷
- Lesson learned from this approach has shown the success of CBDM practice in Viet Nam⁸
- Local people realized the benefits of CBDM through different NGOs
- Vietnam is a disaster prone country and the CBDM process is highly applicable to mitigate the impact of disasters at the community level

7. 2nd National Strategy and action Plan for disaster Mitigation and Management in Vietnam-2002-2020

8. CECI, ADPC, OSFAM implemented CBDM at different levels in Viet Nam

Following are some of the critical issues, which need further consideration:

- CBDM guidelines should consider a “risk management” approach, not limited to disaster management. The newer concept of disaster risk reduction is a broader more encompassing distinction than disaster mitigation, and includes disaster mitigation in the context of sustainable development⁹
- It is critical to note that these tools will mostly be used by the non-native English speaking countries where disaster management practitioners have limited English proficiency. The language could be a major barrier to disseminate these guidelines in different countries/ regions. Therefore, the editing of these guidelines with simple English and arranging to translate these documents into the major country/regional language will be useful
- More gender sensitivity is required. It is important to incorporate gender strategy
- The definitions of CBDM, community, sustainability, and other standard terms should be explained in the same simple and clear manner at the introduction/foreword and repeated in all the tools (if required)
- Should use appropriate definition/explanation of the term CBO, Policymakers, Community Workers, etc. However, the definition may vary from country to country based on the socio-cultural and political perspective
- Outline a method of monitoring and evaluating the success of CBDM projects
- Give guidance on how community participation can be incorporated in the planning process to effectively include the bottom-up approach
- Should be flexible in terms of implementation

9. The 'disaster risk reduction' piloted IDNDR, is the "systematic development and application of policies, strategies and practices to minimize vulnerabilities and hazards throughout a society".

APPENDIX 4:

FURTHER SUGGESTED READINGS

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USEFUL INFORMATION

UNCRD Disaster Management Planning Hyogo Office is providing on-line project publications on CBDM.

<http://www.hyogo.uncrd.or.jp/publication/01project.htm>

The Federal Emergency Management Agency (FEMA), U.S. Department of Homeland Security (U.S.) is providing various educational and training tools in their web regarding disasters.

http://www.fema.gov/tab_education.shtm

Asian Disaster Preparedness Centre (ADPC) (Thailand) is providing training course on CBDM for local government officials, NGOs, and trainers.

www.adpc.ait.ac.th/

EMA (Australia) is providing post-disaster recovery support guidelines which is mainly focused on psychological aspect.

<http://www.ema.gov.au/ema/emaInternet.nsf/AllDocs/RWP624132D4B80AF55ECA256CB3008301BF?OpenDocument>

The Community Planning Website is providing practical approach and technique for local residents to make better environment in their community. Lots of useful how-to-do information.

<http://www.communityplanning.net/>

Global Development Research Center (GDRC) is providing various documents on "Urban Communities and Participation".

<http://www.gdrc.org/uem/documents.html>

Best Practices for Human Settlements introduces the best practices from all over the

world on “Community Participation and Urban Governance”
<http://www.unesco.org/most/bpcomm.htm>

US Department of Education published “Practical Information on Crisis Planning: A Guide for Schools and Communities” which explains what kind of actions should be done in schools and community at the time of crisis including natural disasters.
<http://www.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf>

Asian Development Bank (ADB), Manila, Philippines ADB is a multilateral development finance institution dedicated to reducing poverty in Asia and the Pacific.
<http://www.adb.org>

Asian Disaster Reduction Center (ADRC), Kobe, Japan
 ADRC was established in July 1998 to promote multilateral cooperation for disaster reduction and to network the various players in the region.
<http://www.adrc.or.jp>

Asian Institute of Technology (AIT), Bangkok, Thailand
 AIT is an international graduate institution of higher learning with a mission to develop highly qualified and committed professionals who will play a leading role in the sustainable development of the region and its integration into the global economy.
<http://www.ait.ac.th>

Center for Environmental Planning and Technology (CEPT), Ahmedabad, India
 The Centre for Environmental Planning and Technology (CEPT) is a voluntary non-profit organisation established in 1935, devoted to the cause of education at all levels in several branches of learning.
<http://www.alumni.net/aboutus.asp>
<http://www.gisdevelopment.net/education/inst/cept.htm>

Centre for Disaster Management (CENDIM), Bogazici University, Istanbul, Turkey
 CENDIM was established in January 2001 as an interdisciplinary research center for disaster management.
<http://www.cendim.boun.edu.tr>

Centre for Disaster Studies, James Cook University, Queensland, Australia
 The Centre is a multi disciplinary research unit presently housed in the School of Tropical Environment Studies and Geography of James Cook University.
<http://www.tesag.jcu.edu.au/cds/cdsweb.htm>

Centre for Research on the Epidemiology of Disasters (CRED), Catholic University of Louvain, Brussels, Belgium
 Although the main focus of the Centre is on safeguards, public health and the sanitary aspects of disasters, CRED also studies the socio-economic and long-term effects of these large-scale disasters. It maintains the OFDA/CRED international disaster database EM-DAT.
<http://www.cred.be>

Centre on Integrated Rural Development for Asia & Pacific (CIRDAP)
 CIRDAP is a regional, intergovernmental and autonomous institution established in July 1979 by the countries of Asia and the Pacific region. The member countries of CIRDAP are Afghanistan, Bangladesh (host-state), India, Indonesia, Lao PDR, Malaysia, Myanmar, Pakistan, Philippines, Sri Lanka, Thailand, and Vietnam.
<http://www.cirdap.org.sg>

Centro Regional de Informacion de Desastres (CRID), San José, Costa Rica (Regional Disaster Information Centre)

CRID is an initiative sponsored by six organizations that decided to join efforts to ensure the compilation and dissemination of disaster-related information in Latin America and the Caribbean.

<http://www.crid.or.cr>

Department for Earthquake Engineering at the University of Roorkee, State of Uttar Pradesh, India

The department has rendered technical services to UNESCO on Influence of Natural Disasters on Educational Facilities for the West and South East Asian countries and has prepared a manual on protective measures needed to save educational facilities from the disastrous effects of earthquakes.

<http://www.rurkiu.ernet.in/acads/depts/earthquake/about/about.shtml>

Department of International Development (DFID), UK

DFID is a UK government department working to promote sustainable development and eliminate world poverty.

<http://www.dfid.gov.uk>

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Germany (German Agency for Technical Cooperation)

GTZ is a government-owned corporation for international cooperation with worldwide operations. In more than 120 partner countries, GTZ is supporting many development projects and programmes, chiefly under commissions from the German Federal Government.

<http://www.gtz.de>

Disaster Research Center, Ohio State University, USA

The Center, was established at Ohio State University in 1963 and moved to the University of Delaware in 1985. The Center conducts field and survey research on group, organizational and community preparation for, response to, and recovery from natural and technological disasters and other community-wide crises.

<http://www.udel.edu/DRC>

Disaster Management Facility (DMF), World Bank, Washington D.C., USA

Making sure that disaster prevention and mitigation are integral parts of development requires action, the DMF takes action by providing technical support to World Bank operations, promoting capacity-building, and establishing partnerships with the international and scientific community working on disaster issues.

<http://www.worldbank.org/dmf/mission.htm>

Disaster Mitigation Institute (DMI), India

DMI, India is a community based action research, action planning and action advocacy non-governmental organisation. It works towards bridging the gap between policy, practice, and research related to disaster mitigation, in an effort to link the community to the (inter) national level humanitarian scenario.

<http://www.southasiadisasters.net>

Earthquake Engineering Research Institute (EERI), Oakland, USA

The objective of EERI is to reduce earthquake risk by advancing the science and practice of earthquake engineering, by improving understanding of the impact of earthquakes on the physical, social, economic, political and cultural environment, and by advocating comprehensive and realistic measures for reducing the harmful effects of earthquakes.

<http://www.eeri.org>

Emergency Management Australia (EMA)

EMA provides national leadership in the development of measures to reduce risk to communities and manage the consequences of disasters. It is the Federal Agency responsible for reducing the impact of natural and man-made disasters on the Australian community.

<http://www.ema.gov.au>

European Commission's Humanitarian Aid Office (ECHO)

The European Union's mandate to ECHO is to provide emergency assistance and relief to the victims of natural disasters or armed conflict outside the European Union. The aid is intended to go directly to those in distress, irrespective of race, religion or political convictions.

http://europa.eu.int/comm/echo/en/index_en.htm

United States Federal Emergency Management Agency (FEMA), Washington DC, USA

FEMA is an independent agency of the federal government, reporting to the President. Its mission is to reduce loss of life and property and to protect the nation's critical infrastructure from all types of hazards through a comprehensive, risk-based, emergency management program of mitigation, preparedness, response and recovery.

<http://www.fema.gov>

GeoHazards International (GHI), California, USA

GHI was established in 1993 as a nonprofit organization to reduce death and injury caused by earthquakes in the world's most vulnerable communities. In particular, GHI makes a community safer by raising awareness of its risk, building local institutions to manage that risk, and strengthening schools to protect and train the community's future generations. <http://www.geohaz.org>

Gujarat State Disaster Management Authorities (GSDMA), India

The Government of Gujarat established the Gujarat State Disaster Management Authority in February, 2001 to co-ordinate the comprehensive earthquake recovery program. The GSDMA is registered as a society with a vision to go beyond reconstruction and make Gujarat economically vibrant, agriculturally and industrially competitive with improved standards of living and with a capacity to mitigate and manage future disasters.

<http://www.gsdma.org>

High Powered Committee (HPC) on Disaster Management Plans, government of India

HPC has been constituted to review existing arrangements for preparedness and mitigation of natural and man made disasters including industrial, nuclear, biological and chemical disasters; recommend measures for strengthening organizational structures, and recommend a comprehensive model plan for management of these disasters at National, State and District Level.

<http://www.ndmindia.nic.in/committee/hpcomm.html>

International Federation of Red Cross and Red Crescent Societies (IFRC)

IFRC is the world's largest humanitarian organization, providing assistance without discrimination as to nationality, race, religious beliefs, class or political opinions.

<http://www.ifrc.org>

International Strategy for Disaster Reduction (ISDR)

The International Decade for Natural Disaster Reduction (IDNDR) came to an end in December 1999. The General Assembly endorsed in its resolution 54/219 the proposals put forward in the report of the Secretary-General to ensure the establishment of

successor arrangements for disaster reduction for the effective implementation of the international strategy for disaster reduction. An inter-agency task force and inter-agency secretariat, under the authority of the Under-Secretary-General for Humanitarian Affairs have been established.

<http://www.unisdr.org/>

Japan International Cooperation Agency (JICA)

JICA is responsible for the technical cooperation aspect of Japan's Official Development Assistance (ODA) programs. Technical cooperation and a variety of programmes are aimed at the transfer of technology and knowledge that can serve the socio-economic development of the developing countries.

<http://www.jica.go.jp>

Kandilli Observatory and Earthquake Research Institute, Bogazici University, Turkey

The Kandilli Observatory and Earthquake Research Institute offers graduate work leading to the degrees of Master of Science and Doctor of Philosophy in: Geodesy, Geophysics and Earthquake Engineering.

<http://www.koeri.boun.edu.tr/defaulteng.htm>

La Red de Estudios Sociales en Prevención de Desastres en América Latina (LA RED), (The Latin American Network for the Social Study of Disaster Prevention)

Initially conceived as a mechanism to facilitate comparative research of natural disasters from a social perspective, LA RED has developed into the focal point for hundreds of individuals and institutions working in the field of disaster and risk management in the different countries of Latin America and the Caribbean.

<http://www.desenredando.org>

Office for Foreign Disaster Assistance/US Agency for International Development (OFDA/USAID)

OFDA/USAID has been the principal US agency to extend assistance to countries recovering from disaster, trying to escape poverty, and engaging in democratic reforms. USAID is an independent federal government agency that receives overall foreign policy guidance from the secretary of state.

<http://www.usaid.gov>

OXFAM, United Kingdom

Oxfam's work is dedicated to finding lasting solutions to poverty and suffering

<http://www.oxfam.org.uk>

Oxford Center for Disaster Studies (OCDS)

OCDS is one of the leading organisations in consultancy, training and research in the field of disaster management and protection.

<http://dialspace.dial.pipex.com/town/estate/vz92>

Philippine Institute for Volcanology and Seismology (PHIVOLCS), Quezon City, Philippines

The principal goal of PHIVOLCS is to formulate up-to-date and comprehensive disaster preparedness and loss reduction action plans for volcanic eruption, earthquake occurrences and related geotectonic processes/phenomena which imprint significant impacts on man and his environment.

<http://www.phivolcs.dost.gov.ph>

South Asian Association for Regional Cooperation (SAARC), Kathmandu, Nepal
SAARC was established when its charter was formally adopted on 8 December, 1985 by the heads of state of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. SAARC provides a platform for the peoples of South Asia to work together in a spirit of friendship, trust and understanding..

<http://www.saarc-sec.org>

Swedish International Development Agency (SIDA)

SIDA creates the preconditions for change and sustainable development.

<http://www.sida.org>

OUR COUNTERPARTS AND CONTRIBUTORS/EXPERTS

Sustainable Environment and Ecological Development Society (SEEDS)

<http://www.seedsindia.org>

National Society for Earthquake Technology (NSET)-Nepal

www.nset.org.np

Institute of Technology Bandung (ITB)

<http://www.itb.ac.id/>

Cambodian Red Cross (CRC)

<http://www.ifrc.org/address/kh.asp>

CARE Bangladesh

http://www.careinternational.org.uk/cares_work/where/bangladesh/

International Institute for Disaster Risk Management (IDRM)

<http://www.idrmhome.org/>

Canadian Centre for International Studies and Cooperation (CECI) Vietnam

<http://www.cecivietnam.com>

The Natural Disaster Mitigation Partnership (NDM-Partnership), Vietnam

<http://www.undp.org.vn/ndm-partnership/>

Disaster Management Unit, (DMU), Standing Office of the Central Committee for Flood and Storm

Control (CCFSC), Vietnam

<http://www.undp.org.vn/dmu/index.html>

Philippine National Red Cross (PNRC)

<http://www.redcross.org.ph/>

Bangaldesh Disaster Preparedness Centre (BDPC)

Dhaka, Bangladesh

Kutch Nav Nirman Abhiyan (KNNA)

<http://www.kutchabhiyan.net/>

University of Cape Town

<http://www.uct.ac.za/>

Bangladesh Disaster Preparedness Centre (BDPC)
Dhaka, Bangladesh

Kutch Nav Nirman Abhiyan (KNNA)
<http://www.kutchabhiyan.net/>

University of Cape Town
<http://www.uct.ac.za/>

IFRC (Caribbean)
<http://www.caribbeanredcross.org/>

United Nations Environment Programme (UNEP)/IETC
<http://www.unep.or.jp>

SOPAC
www.sopac.org.fj

United Nations University (UNU)
<http://www.unu.edu/>

Japan International Cooperation Agency (JICA)
<http://www.jica.go.jp/english/index.html>

United Nations Development Programme (UNDP) India
<http://www.undp.org.in/>

Peace Winds Japan
<http://www.peace-winds.org/en/index.html>

World Seismic Safety Initiative (WSSI) (Teddy Boen)
<http://www.wssi.org/>

Citizens towards Overseas Disaster Emergency (CODE)
<http://www.code-jp.org/index-e.htm>

NGOs Kobe
<http://www.pure.ne.jp/~ngo/english/cover.htm>

Hyogo Prefectural Government, Japan
<http://web.pref.hyogo.jp/english/index.html>

Kobe City, Japan
<http://www.city.kobe.jp/index-e.html>

About UNCRD

The United Nations Centre for Regional Development (UNCRD) was founded in 1971 in Nagoya, under an agreement between the United Nations and the Government of Japan.

UNCRD has been striving to achieve the following objectives :

- Serve as a training and research centre;
- Provide advisory services;
- Promote global knowledge-sharing; and
- Encourage international co-operation among nations, regions, and organisations.

In 1999, The UNCRD Disaster Management Planning Hyogo Office was established in Kobe, where the Great Hanshin-Awaji Earthquake had claimed the lives of more than 6,000 people in 1995. The Hyogo Office focuses on various disaster management initiatives through multi-lateral collaboration at an international level while utilising the momentum created during the UNIDNDR 1990-99 (United Nation International decade for Nature Disaster Reduction). It promotes effective disaster mitigation, focusing on key elements of self-help, cooperation, cooperation, and education through activities such as

- Research projects;
- Training and capacity-building;
- A series of international workshops; and
- Advisory services.