

# **Community-Based Disaster Management in the Philippines: Making a Difference in People's Lives**

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## **INTRODUCTION**

Over the last decade, parallel organizations engaged in mitigating the adverse impact of disasters on human life and property have called for a paradigm shift. Working in different parts of the world, they advocate a change in approach from the prevailing emergency management framework to disaster risk management. In contrast to a reactive, top-down mode of handling disasters that focus on structural and technological solutions, the new approach highlights proactive activities involving local communities that usually bear the brunt of disasters. In this approach, the onus of disaster mitigation lies in the communities. It capitalizes on local resources and capacities to reduce people's vulnerabilities (Maskrey 1994, Maskrey and Jegillos 1997, ADPC 2000, UNISDR 2002).

The Philippines is not new to community-based disaster management (CBDM). Its experience with recurring disasters and a long history of self-help efforts at the grassroots facilitated the adoption of CBDM. After many years of implementation, there is now general

recognition that CBDM does work in the country and is an effective approach for reducing disaster frequency and loss. The practices associated with community involvement in disaster management now form part of a rich body of CBDM knowledge and practice here and abroad.

## **THE PHILIPPINES AMONG THE MOST DISASTER-PRONE COUNTRIES**

The Philippines shares with several Asian countries the unwelcome distinction of being among the world's most disaster-prone societies. The Center for Research and Epidemiology of Disasters in Belgium recorded a total of 701 disaster incidents from 1900 - 1991, or almost 8 disasters a year. For the period 1987 to 2000, the National Disaster Coordinating Council (NDCC) recorded 523 disasters or an average of some 37 disasters annually (OCD 2001)<sup>1</sup> with damages amounting to a high Php150.071 billion.

Documentation by nongovernment organizations (NGOs) also reveals local disasters that do not land in national dailies. Aside from such unreported natural disasters, the figures obtained by NGOs are higher than those of the NDCC because they include human-induced disasters like development aggression (development projects which are undertaken against the will of local communities), fire, labor repression, other industry-related events, armed conflict, and toxic waste contamination. The cumulative documented population affected by disasters from 1991 to 2000 is 96,907,837 individuals, which indicates that many Filipinos are repeatedly hit by disasters (CDRC 2000 and 2001).

### **TAKING ON AN ALTERNATIVE APPROACH IN DISASTER MANAGEMENT**

Successive disasters and the most severe economic crises since the end of World War II in the eighteenth year of the Marcos dictatorship revealed the inadequacy of Philippine government response to disasters and the limitations of their technical and reactive stance. This compelled NGOs and people's organizations to promote and develop an alternative approach that highlighted the need to mobilize communities to help themselves and others.<sup>2</sup> The Citizens Disaster Response Center/Network (CDRC/N) was thus born in 1984 to carry out citizenry-based and development-oriented disaster

response and preparedness strategies (CDRC 1990).

With successive "mega-disasters" in the last decade and positive case stories of community participation in disaster preparedness and mitigation, more communities, people's organizations, NGOs, government agencies and local government units have adopted CBDM. The Philippine National Red Cross, for instance, has implemented its Integrated Community Disaster Planning Program since 1994. It is now in the course of expanding program coverage beyond the five provinces. Other agencies such as the World Vision Development Foundation Inc., Caritas-Manila, and the Philippine Relief and Development Services have also now integrated CBDM into their existing emergency services. In the government sector, the Department of Social Welfare and Development through its Bureau Emergency Assistance promotes Family and Community Disaster Preparedness in local government units. Among local government units, the municipality of Guagua and the province of Albay are recognized for excelling in local and community level disaster management.

The Philippines held its First National Conference on Community-based Disaster Management on 18-20 January 2003. Jointly organized by the National Disaster Coordinating Council-Office of Civil Defense, the National Defense College, and the Philippine Disaster Management Forum, its aim was to share

experiences and good practices and address urgent challenges.<sup>3</sup> The Conference called for the widespread replication of CBDM beyond the piloting stage (OCD 2003).

## **FEATURES AND PRINCIPLES OF COMMUNITY-BASED DISASTER MANAGEMENT**

Whether a disaster is major or minor or of national or local significance, people in communities are the ones adversely affected. To mitigate the impact of a disaster, they use coping and survival strategies that enable them to respond to the situation even before outside help from NGOs or the government arrives. Having experienced damage and loss, they are interested to protect themselves and are, therefore, open to community-based disaster preparedness and mitigation (AUDMP 2002).

In its report on the activities of the First National Conference on CBDM, the Office of Civil Defense noted that at present there are diverse CBDM practices among various actors and stakeholders such as government and NGOs (OCD 2003). The following key features, which distinguish CBDM from the top-down and traditional aid approaches to disaster management, are based on current practices and experiences:

1. *People's participation.* In CBDM, the community members are the main actors. They substantiate the disaster risk reduction process and pursue disaster management activities. It is important to note

that they directly benefit from disaster management and development.

2. *Priority for the most vulnerable groups, families, and people in the community.* While the participation of all sectors in society is needed for disaster risk reduction, priority in CBDM is given to the most vulnerable groups. In urban areas, the most vulnerable sectors are generally the urban poor and informal sector while those in rural areas include subsistence farmers, fisherfolk and indigenous people. Special attention is given to the needs and concerns of children and women (because of their caregiving and social function roles), the elderly, and the differently-abled,

3. *Risk reduction measures are community-specific.* CBDM takes into consideration the particular context of the community. Appropriate risk reduction measures are identified after an analysis of the community's disaster risk (hazard exposure, vulnerabilities, and capacities). Various participatory tools are used to consider people's varying perceptions of disaster risk and solutions to community problems and risk reduction.

4. *Existing coping mechanisms and capacities are recognized.* CBDM builds upon and strengthens existing coping strategies and capacities. Although lacking in material assets, Filipinos can rely on social organizations, shared

values and coping mechanisms such as *bayanihan* (cooperative endeavor), *damayan* (sharing one another's burden), close family ties, the presence of community/people's organizations and NGOs, and local knowledge and resources. A persevering spirit, being *madiskarte* (or resourceful), and wit and humor are individual and collective attributes which steer the Filipinos through times of crisis.

5. *Disaster risk reduction is linked with development.* Simply put, the aim of CBDM is to reduce vulnerabilities by strengthening the capacities of individuals, families and communities. CBDM seeks to address conditions, factors, processes and causes of vulnerabilities brought about by poverty, social inequality, and environmental resource depletion and degradation. CBDM subscribes to people-centered development as well as equitable and sustainable development. The goal of CBDM is to build safer, disaster resilient, and developed communities.
6. *Outsiders have supporting and facilitating role.* With the community as the main actor in CBDM, the role of NGOs is supportive, facilitative and catalytic. The government's role, on the other hand, is integral to the institutionalization of the CBDM process. Partnerships with less vulnerable groups and other communities are forged for disaster risk reduction.

Closely related to these distinguishing features are the principles and qualities of CBDM programs and activities. They are participatory, responsive, integrated, proactive, comprehensive, multi-sectoral and multidisciplinary, empowering, and developmental. These features also serve as overall targets to work for as well as performance indicators to keep track of in developing and implementing CBDM. Both the process and content of people's participation is important. The process involves community members, particularly the most vulnerable sectors and groups in risk assessment, identification of mitigation and preparedness measures, decision making, and implementation. Participatory tools, mostly adapted from participatory rural appraisal methods are used. The community directly benefits from the risk reduction and development process. Because of the participation of community members, CBDM activities and programs are responsive to their felt and urgent needs. Consideration of the community's perception and prioritization of disaster risk and risk reduction solutions, in turn, leads to ownership.

Although the stress is on proactive measures of prevention, mitigation and preparedness, emergency and recovery interventions are also planned and implemented for an integrated disaster response. Communities are linked with other communities, organizations, and government units or agencies at various levels of the disaster management system,

### **Box 1. Vulnerability Reduction in the Citizen's Disaster Response Network Experience**

The Citizens' Disaster Response Center/Network (CDRC/N) is generally recognized as having pioneered in CBDM in the Philippines. Since its establishment in 1984, the features of its particular brand of CBDM—the citizenry-based development-oriented disaster response, have found applications in other CBDM programs. Taking the position that CBDM should address the roots of vulnerabilities and contribute to transforming or removing structures generating inequity and underdevelopment, CDRC/N puts a premium on people's participation and building the organizational capacity of vulnerable communities through the formation of grassroots disaster response organizations.

CDRC/N's preparedness and mitigation measures are mostly non-structural in nature and directed to capability building such as disaster management orientation, disaster preparedness training, public awareness, community organizing, food security, nutrition improvement, and advocacy. CDRC/N's Food Security and Improvement Program (FSNIP) enhances the capacity of vulnerable communities to withstand the effects of disasters through food and income sources diversification, increasing access to food supply, and improvement in nutritional status of beneficiaries, especially children.

The village of Ag-agama, an indigenous community in the Cordilleras, Northern Luzon regularly experiences typhoons, drought, pest infestation, and earthquakes. Disaster events have become windows of opportunity for preparing and strengthening community capacities for future disasters. After the conduct of the Ag-agama community profiling workshop using Participatory Rapid Appraisal tools, a two-year community development plan was formulated as part of the FSNIP. Diversification of food and income sources included dispersal of vegetable seeds, fruit seedlings and farm implements, sustainable agriculture training, construction of waterworks, rehabilitation of the community irrigation system, livestock and fish production, and dispersal of draft animals and veterinary medicines. Aside from increasing access to food supply, health and nutrition-related activities included de-worming of children, sanitation campaigns, latrine construction, establishment of village pharmacy and herbal gardens, and medical missions. Training and education activities covered disaster management, functional literacy campaigns, and organizational development support (Morillo 2001 and MRRS 2001).

An evaluation of the effectiveness of CDRC/N's CBDM work by its Core Donors in 1999 concluded: "The key (to effectiveness) is increased self-confidence (of vulnerable communities) through meaningful participation, one of the central elements of the CBDO-DR approach. As a rule, not only the organized members of the community benefit from counter disaster planning, but also the unorganized" (Delica, Marcelino & van der Veen 1999:15).

especially for vulnerabilities that the community cannot address on its own. A comprehensive mix of structural (hard, physical) and nonstructural (soft, health, literacy, public awareness, education and training, livelihood, community organizing, advocacy, reforestation and environmental protection, etc.) preparedness and mitigation measures are undertaken. Risk reduction plans involve short-, medium- and long-term measures to address vulnerabilities.

While upholding the basic interest of the most vulnerable sectors and groups, CBDM considers the roles and participation of all stakeholders in the community who come from various sectors and disciplines. The risk reduction planning and implementation process combines indigenous or local knowledge and resources on the one hand, and science and technology and outside support, on the other. CBDM is an empowering framework which increases people's options and capacities. Vulnerable groups and communities gain more access to and control of resources and basic social services through their concerted action. They enjoy more meaningful participation in making decisions that affect their lives and give them control over their natural and physical environment. Participation in CBDM develops the confidence of community members to participate in other development endeavors. CBDM, particularly in disaster preparedness, mitigation and prevention, thus contributes to achieving development goals by reducing vulnerabilities due

to poverty, social inequity and environmental resources depletion and degradation.

## **PROCESS TO TRANSFORM AT-RISK COMMUNITIES TO DISASTER RESILIENT COMMUNITIES**

In general, the goal of CBDM is to transform vulnerable or at-risk communities to disaster resilient ones. While resilience is a new term used in CBDM in the Philippines, community members easily grasp the concept when the metaphor of the bamboo swaying with strong winds yet remaining firmly rooted is used.

Although the steps may vary with different community contexts and organizational mandates, the process for local disaster risk reduction can be generalized as follows (ADPC 2001):

- Initiating the process - community or outsiders may initiate the process. This involves linkage and building rapport with external facilitators;
- Community profiling - initial understanding of disaster situation and orientation on CBDM;
- Community risk assessment - participatory assessment of hazards, vulnerabilities, capacities, and people's perception of risks;
- Formulation of initial disaster risk reduction plan - also called community counter disaster, disaster management, development plan or action plan, and involves the identification of appropriate mitigation and preparedness

## **Box 2. The Philippine National Red Cross' Social Mobilization for CBDM**

Better known for its blood banking and emergency response programs, the Philippine National Red Cross (PNRC) has pursued a proactive and community-based approach to disaster management since 1994 with its Integrated Community Disaster Planning Program (ICDPP). Piloted in Bgy. Bacun, Benguet, Mountain Province, ICDPP now covers five provinces and is in the process of being replicated in other areas.

Its approach involves the formation of a Barangay Disaster Action Team (BDAT) whose members are elected by the community assembly from among sectoral organizations. Usually, the Barangay Captain is also the Chair of the BDAT. The ICDPP provides intensive training for the BDAT who later on conducts the risk assessment and local disaster action planning with community members. In its preparation of hazard and resource maps, the ICDPP uses GPS together with other participatory tools. The BDAT leads the community in preparing the hazard and resource maps and three-dimensional models, but the digitized maps are finalized in the PNRC central office. The technical outputs of the ICDPP are turned-over to the municipal government to help land use planning. The BDAT members also use many popular public awareness materials such as posters and comics on disaster preparedness for problem identification and ranking solutions.

In Bgy. Maasin, Quezon in the island province of Palawan, the BDAT mobilized the community members to solve community problems such as isolation from the town center during the rainy season, lack of health care services, and environmental degradation. The community constructed a hanging bridge and health center and protected the mangrove areas from being converted into commercial fishponds. The community provided the labor while the Red Cross supplied the materials for the construction projects. Technical help in engineering design was given by the municipal government. Since the community identified the project as urgent and its members worked hard to see the completion of the construction project, they continue to manage and sustain them. The hanging bridge took five months to construct and is now used during floods for access to the village center and for children to continue schooling. The village health center has been nominated in provincial and regional competitions for its excellence in service (PNRC 2002 and 2003, CDP 2002b).

measures, including public awareness, training and education activities;

- Formation of community disaster management organization - community organizing and mobilization, capability building in preparedness and mitigation, organizational development and strengthening;
- Implementation of short-, medium-, and long-term risk reduction measures, activities, projects, programs and strategies; and
- Monitoring and evaluation - continuous improvement of community preparedness and mitigation, identification of factors facilitating and constraining success; and documentation of good practices for possible replication.

Within this process, the formation and strengthening of a community disaster management organization are crucial to mobilizing communities for sustainable disaster risk reduction. The community volunteers, disaster management committee, and disaster response organization are the necessary channels for outsiders such as NGOs or government agencies to assist the community. Community groups and organizations are essential to meet the intended aims and targets in CBDM. While NGOs have been instrumental in initiating and facilitating the CBDM process, people's/community organizations and even local government units are now involved in enhancing capabilities for

local and community preparedness and mitigation.

## **BENEFITS OF COMMUNITY PARTICIPATION IN CBDM**

In recommending the widespread replication of CBDM in the Philippines, the First National Conference on CBDM in January 2003 underscored key benefits derived from its implementation – enhanced community preparedness, zero casualty, effective response, self-reliance/self-help, optimum utilization of resources, solidarity/bayanihan, strengthened community organizations, and enhanced coordination and networking.

During the Regional Workshop on Best Practices in Disaster Mitigation in September 2002, similar benefits such as building confidence, pride in being able to make a difference, enhanced capabilities to pursue disaster preparedness, mitigation as well as bigger development responsibilities at the local level were cited. In addition, individual and community ownership, commitment and concerted actions in CBDM, including resource mobilization have produced a wide range of appropriate, innovative and doable preparedness and mitigation solutions which are cost-effective, self-help and sustainable. These have led to empowerment at the individual, household and community levels. With case stories that show and tell that CBDM works, there is now an increased demand to replicate CBDM (AUDMP 2002).



### **Box 3. Buklod Tao Assists other Communities in CBDM**

Buklod Tao is an environmental people's organization based in Doña Pepeng Subdivision and North and South Libis, Brgy. Banaba, San Mateo. After a one-day Disaster Management and Preparedness Seminar in June 1997, Buklod Tao formed a Disaster Response Committee (DRC) composed of 33 members and formulated a Counter Disaster Plan to protect the community from damages due to regular flooding. Three disaster management teams were organized and emergency rescue and evacuation plans were detailed (including fabrication of 3 fiberglass boats using local expertise and labor and practice rescue maneuvers in the river). From the Barangay Council, Buklod Tao was able to secure one life jacket. From other sources, the organization secured funds (around Php 30,000) to purchase flashlights, ropes, megaphones, first aid kits and materials to build three rescue boats. Two months after the seminar, a typhoon hit the community. Although several houses were swept away by the waters, no one was killed and many people were able to save their belongings. Since then, when typhoons hit the area everybody can be brought to safety because of flood-level monitoring, early warning, evacuation, rescue operations, and relief assistance activities of the DRC and Buklod Tao.

Word of Buklod's activities and the benefits of CBDM circulated. Before long, neighboring communities began asking for help in conducting their own training activities and in forming their own DRC. Among the next adherents of CBDM are Brgy. Banaba Extension, Brgy. Ampid, Riverside Libis, R. Dulo, R. Bungad and Pulang Lupa in Brgy. Sto. Niño. The communities all decided to hold disaster management orientations and disaster preparedness training (DPT) in their respective barangays and to eventually form DRCs. Buklod Tao also assisted in the formation of a DRC in the far-flung rural community in Brgy. Calawis, Antipolo City. After the 2-day DPT, the Calawis Community-based Disaster Group was formed. Its initial activities include mobilizing resources to finance and equip disaster preparedness requirements.

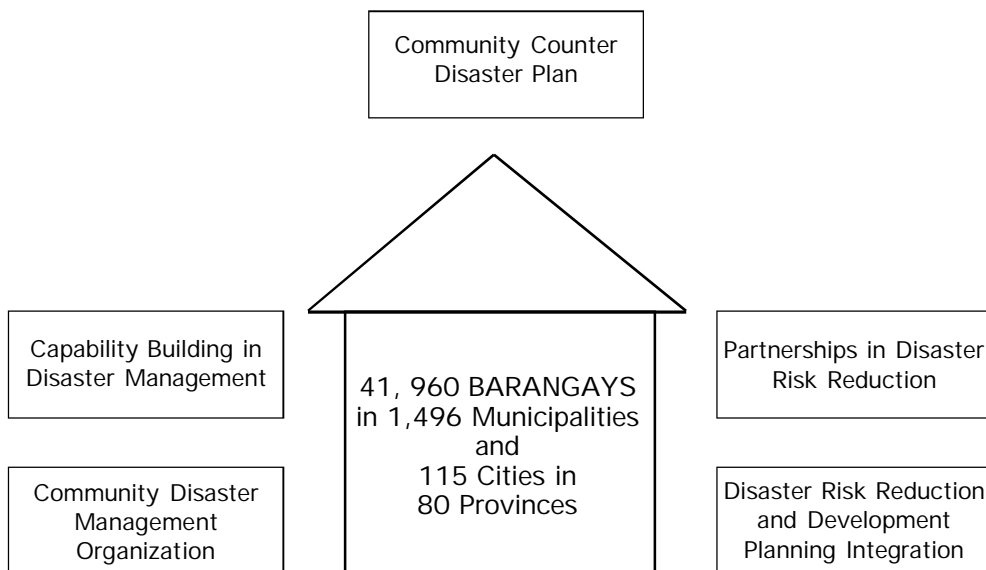
Even small benefits and gains from undertaking CBDM motivate the community to sustain the CBDM activities and replicate the CBDM process in other vulnerable communities. Case stories such as the experience of Buklod Tao increase demand for CBDM, with assistance from NGOs, government, and communities themselves (Abinales 2002, Heijmans and Victoria 2001).

## SOME WAYS AHEAD FOR CBDM IN THE PHILIPPINES

The experiences of CBDM in the Philippines point to five interrelated requisites for the institution, sustainability and replicability of CBDM at the local and community level as shown in Figure 1. Capability building in disaster management, which cover sustained training and public awareness activities using local knowledge, language and culture, should be supported and undertaken. It would enable communities to increase participation and eventually sustain their own the CBDM activities. Basic to the training is an assessment of the nature and behavior of hazards prevailing in the community, the

particular prevention, preparedness, and mitigation measures to undertake, and specific skills in relevant disaster management responses. Among less vulnerable groups including government and NGO policy makers and implementers, capability building should include risk reduction and CBDM framework and methods.

The CBDM training and public awareness activities ought to result in the formulation of a community counter disaster-plan. Alternatively called the emergency/contingency plan, preparedness and mitigation plan, or community disaster management plan, the plan should chart the community's progression towards safety, disaster resilience and



**Figure 1. Requisites to Sustain and Institutionalize CBDM**

people-centered (equitable and sustainable) development. Doable disaster management activities before, during, and after periods of disaster enhance the community's capacities and reduce its vulnerabilities and disaster risk.

To pursue the implementation of the plan and mobilize the community-at-large in undertaking preparedness and mitigation measures, the formation and strengthening of community disaster response organizations is necessary. The function of disaster management can be integrated into existing community organizations, structures, or volunteer teams. Aspects of disaster management and organizational strengthening should include leadership skills and values formation, studies on sectoral/community/municipal to national scenarios and burning issues.

The integration of community disaster risk reduction into local development planning systems and processes will lead to sustainable and equitable community development. When there are political constraints, the community should advocate for such integration so that issues of public safety, poverty, employment and livelihood security, housing, health services, education, management of the physical and natural environment or general well-being of the community and public are addressed. Development planning should take into consideration the particular geographical and physical characteristics of the country as well as ensure that policy, programs, and

resources contribute to development for all.

Partnerships in disaster risk reduction should be forged between the vulnerable and less vulnerable groups within the community. Community networks with local government, concerned government agencies, NGOs and other communities are needed to implement the CBDM plan, especially for vulnerabilities which the community cannot address on its own. The complementary and concerted action of stakeholders from various sectors, disciplines and levels of the Philippine disaster management and development planning system are needed to achieve safety, disaster resilience, and equitable and sustainable development for all. Although communities have acquired local coping strategies and capacities to reduce some vulnerabilities through the experience of recurring disasters, vulnerability is a complex web of societal conditions, factors, and processes (Anderson and Woodrow 1989, Blaikie et al. 1994, Anderson 1995) which the community cannot untangle on its own. Immediately, many necessary structural mitigation measures involve big capital outlay. Building a culture of safety and disaster prevention entails a lot of commitment and effort, learning and unlearning, doing and undoing, involving all stakeholders.

The First National Conference on CBDM pointed to immediate policy and operational issues in its recommendations to adopt CBDM as a viable approach for reducing

#### **Box 4. Meeting of Top-down and Bottom-up Approach in Capability Building for CBDM in Camiguin Province**

The island province of Camiguin was devastated by Typhoon Nanang on 6-8 November 2001. The landslides, lahar and flashflood claimed 220 lives (including those declared missing), injured 146 persons and affected some 7,000 families. Damage to settlements, agriculture and infrastructure was placed at P201 Million. This recent disaster served as a wake-up call to enhance local and community capacity in disaster preparedness and mitigation. The Local Government Units (LGUs) of Camiguin have since April 2002 undertaken the "Enhancing Capacities in Disaster Preparedness, Prevention and Rehabilitation Project" with the support of the Local Government Support Program (LGSP). One of the key strategies for integrated, responsive, proactive and development-oriented disaster management involved the synchronization of improvements in capacity and the systematization of the community and local level with the provincial level (meeting of the top-down with the bottom-up approach or *bibingka* approach). Aside from training workshops on disaster preparedness and disaster management planning, a study tour was organized to Legaspi, Albay and Guagua, Pampanga to share and learn from those best practices in local and community level disaster management. At the barangay level, community organizations and residents participated in the capability building activities.

The municipality of Mahinog suffered the most damages during Typhoon Nanang, and was prioritized for disaster preparedness and mitigation activities. The Community Risk Assessment held in May 2002 in Bgy. Hubangon was attended by 80 participants from all the sitios. During the Disaster Preparedness Training in the first week of July, the LGU personnel and community members realized that when it floods, the water level does not rise all at once, and there is opportunity to issue an early warning so long as a careful watch or monitoring is carried out. Their newly designed early warning and evacuation system was put to an initial test during Typhoon Milenyo in August 2002. Continuous ringing of the church bells and sirens means residents should evacuate to the Chapel and Mahinog National High School premises. The Barangay Disaster Coordinating Council has been reconstituted and is composed of 135 members. Even while "echo" seminars on disaster preparedness have still to be undertaken, the community members already value the barangay counter-disaster plan.

The community level counter-disaster plans were then integrated into the municipal and provincial plans following the DM planning workshop in March 2003(LGSP 2003, CDP 2003a).

disaster frequency and loss: undertake unified and purposive lobbying for an enabling legislation on CBDM; allow use of Local Calamity Fund allocation funds for predisaster activities; institutionalize the Disaster Management Office at all levels of government; empower local officials to declare a state of calamity; integrate disaster management into the government's development planning; take advantage of relief as an entry point for developmental interventions; respect and strengthen existing community coping mechanism and structures; conduct research, training, sharing of information and experiences in CBDM; enhance coordination, cooperation, partnerships and volunteerism; espouse a Code of Ethics of "Do no harm" among DM practitioners; include disaster management in the school curriculum; educate media and donors; base disaster responses on damage and risk assessments; and formulate appropriate standards for relief packs, evacuation centers, and other services.

## CONCLUSION

Experiences in the Philippines affirm the relevance, viability and effectiveness of involving communities in disaster management. CBDM, a participatory approach, is making a difference in the lives of Filipino families and communities. However, to sustain, replicate and institutionalize CBDM, the bottom-up approach has to be combined with the top-down approach. Vulnerabilities which are rooted in the Philippines' socio-economic political system and level of development (or underdevelopment) cannot be reduced by communities alone. The higher levels of the Philippine disaster management and development planning system have to support and enable on-the-ground CBDM. To realize the reduction of disaster risk and achieve safety, disaster resilience, and development for all Filipinos, local knowledge, coping strategies and resources, especially in vulnerable communities, have to be complemented with commitment and supportive actions from less vulnerable and multisectoral groups.

## NOTES

- 1 The National Disaster Coordinating Council's monitoring system from 1998 includes minor and major disasters. For the year 2000 alone, 259 disaster events were noted, affecting 9,078,236 persons with total cost of damage of Php 7.739 Billion (NDCC 2003).
- 2 A debilitating drought in 1983, six destructive typhoons and Mayon Volcano eruption in 1984 wrought havoc to the lives of Filipino communities.
- 3 Excluding some 22 observers, the Conference was attended by 82 participants from 69 national and local government agencies, NGOs, community organizations, and academe.

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