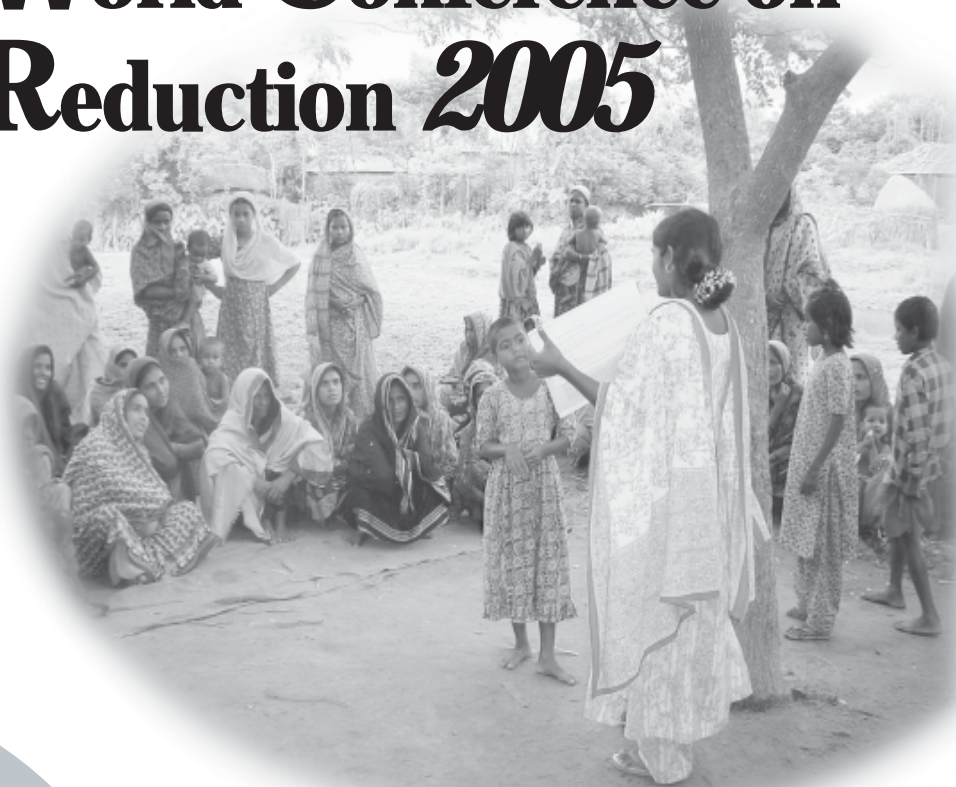Proceedings

INTERNATIONAL
SYMPOSIUM
on

"Community Legacy in Disaster Management"

Pre-Event for
the UN World Conference on
Disaster Reduction *2005*

7 February 2004
KOBE, JAPAN

Organised by
UNCRD, UNISDR, Hyogo Prefecture, The Yomiuri Shimbun

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FOREWORD

Ten years ago in Yokohama, experts and governments gathered to set out a strategy and plan of action to address the increasing impact of disasters in the world. In particular, the Yokohama Message affirmed that community involvement and their active participation should be encouraged in order to gain greater insight into the individual and collective perception and understanding of development and risk, based on the cultural and other capabilities of each society.

Sadly, since then, due to rapid population growth, especially in urban areas, environmental degradation, growing poverty, the social and economic impacts of disasters have become greater. The underlying problem of growing vulnerability to hazards is largely an outcome of development activities. Every day, development decisions being made at local and international levels are more often increasing the vulnerability to hazards than reducing risk.

The situation may not be as bleak as the statistics show. Encouragingly, many governments and other entities are recognising the importance of disaster risk reduction and actively pursuing initiatives to reduce vulnerability to disasters.

A good example of such commitment is the effort of the United Nations Center for Regional Development (UNCRD) to focus on this issue and provide recommendations to improve the situation in many parts of Asia through community-based disaster risk management. The International Symposium on "Community Legacy in Disaster Management" held on February 7, 2004, at Kobe is part of these efforts.

The symposium provided an opportunity to exchange views and good practices in community-based disaster risk management between government officials, disaster-management experts, and NGOs representatives. I would strongly recommend that the resulting tools and guidelines are disseminated to as many communities as possible, in particular, in the developing world as a contribution to increase their resilience to the impacts of natural hazards. The symposium also served as a pre-event to the World Conference on Disaster Reduction (WCDR), which will be held in Kobe, Hyogo 18-22 January 2005.

In 2003, UNCRD was appointed as a member to the United Nations Inter-Agency Task Force on Disaster Reduction (IATF/DR), which will, I am sure, further strengthen its commitment to fulfilling the objectives of the International Strategy for Disaster Reduction (ISDR). I also look forward to a strong partnership between UNCRD and the ISDR Secretariat to continue addressing the problem of the most vulnerable communities, which is the essential purpose of the ISDR.

Salvano Briceño
Director
UN International Strategy for
Disaster Reduction Secretariat

PREFACE

The world today has been changing rapidly through modernisation. Rapid urbanisation, civil unrest, and changes in the environment have stirred the lives of many. Along with these occurrences, instances of natural hazards continue to disrupt and destroy the lives and the livelihood of just as many. Some studies have revealed that over the past two to three decades the economic losses and the number of population that have been affected by natural disasters have increased more rapidly than the economic and population growth. .

From the Great Hanshin-Awaji Earthquake that took place in 1995 to the most recent earthquake which affected Bam in Iran seem to substantiate this study, given the massive number of causalities and victims that were born from these events. Time and time again, we are reminded of the devastating effects of the damages natural hazards are capable of achieving. Similarly, time and time again immediately after these disasters, many express concerns of natural hazards. Subsequently, government to the individuals tend to their concerns by choosing to practice disaster management activities. Yet, after some time of peace, such concern and participation wane; and awareness replaced by complacency leaves room for new chaos when natural hazards turn into disasters.

The United Nations Centre for Regional Development (UNCRD), through the UNCRD Disaster Management Planning Hyogo Office (the Hyogo Office), has been striving to act upon disaster mitigation activities that would prevent communities from experiencing the vicious cycle of construction, destruction, and re-construction. In other words, the Hyogo Office felt the need to undertake a study in the effectiveness of grass-roots projects and policy input for sustainability of disaster management. Understanding that communities and grass-roots efforts are important factors in disaster management, the Hyogo Office launched a thee-year research project entitled, "Sustainability in Community Based Disaster Management (CBDM)". Having completed the first two years of this project, the Hyogo Office has developed a set of Guidelines and Tools for CBDM. In its final year, the Guidelines and Tools would have been reviewed, revised, and used for field application in areas that would benefit from such material.

The International Symposium on "Community Legacy in Disaster Management", has become one of the platforms where an in-depth discussion in relation to CBDM and the Guidelines and Tools could be discussed. Experts from around the world have been invited to actively participate in this process, given their rich and in-depth experience in this field. These suggestions and ideas would be incorporated into the Guidelines and Tools and would be reflected in the final version of the publication.

As the theme of this year's symposium, "Community Legacy in Disaster Management" reveals, it tried to shed light upon the various grass-roots disaster management activities inherent at the community level that could be strengthened, institutionalised, and multiplied over generations for the benefit of communities around the world. At this symposium, some of these collected local "legacies" of disaster management were presented and discussed by experts from Asia, Africa, and the Americas. In addition, experts from Japan enlightened this discussion by offering their expertise and experiences.

Furthermore, in December of 2003, the UN General Assembly adopted resolution A/RES/58/214 to "convene a World Conference on Disaster Reduction in 2005, designed to foster specialised discussions and produce concrete changes and results," with four major objectives attached to the purpose of this world conference. The United Nations International Strategy for Disaster Reduction (UN ISDR) is to act as the secretariat of the Conference and as the coordinating body for this event. The UN ISDR, in tandem with Inter-Agency Task Force for Disaster Reduction (IATF), has been coordinating with the Japanese government to host such conference in Kobe, Japan. Given such decision, the Hyogo Office decided to attribute this year's International Symposium as one of the preliminary events leading to the World Conference. The Hyogo Office felt compelling to, given its disposition as a UN organisation and a member of the IATF, support the cause through various methods including this symposium.

Hence this International Symposium has been implemented in anticipation of achieving the dual purposes of establishing an opportunity to discuss further the "legacy" of communities in relation to CBDM and to act as an anticipatory event of the World Conference by way of attributing itself as one of the preliminary events. Through this event, it is expected that consensus can be built to cherish, nurture, and further build on community-based disaster management activities at a global level and here from the local level in Kobe, where the experiences from the Great Hanshin-Awaji Earthquake can contribute to global safety.

Kazunobu Onogawa
Director
UNCRD

BACKGROUND

Introduction

On the occasion of the 1994 mid-term review of the UN **International Decade for Natural Disaster Reduction** (IDNDR), the first World Conference on Natural Disaster Reduction was held in Yokohama. Subsequently, the outcome derived from the "Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation" became the baseline Plan of Action that acted as a guide for disaster reduction. Since then, the IDNDR has ended and its efforts and aims have been inherited by the **United Nations International Strategy for Disaster Reduction** (UNISDR) and the **Inter-Agency Task Force** (IATF) has been established to serve as the principal body for the development of disaster reduction policy.

2004 marks the tenth year since the Yokohama World Conference. While efforts towards disaster mitigation and preparedness are increasing in number and in their effectiveness, human and economic losses resulting from natural disasters have continued to this date.

In December 2001 (resolution 56/195), the UN General Assembly:
"[r]equests the Secretary-General, with the assistance of the inter-agency secretariat for the Strategy, to plan and coordinate, in consultation with Governments and relevant organisations of the United Nations system, including the financial institutions, the 2004 review of the Yokohama Strategy and report to the General Assembly at its fifty-eighth session in this regard."

The Yokohama Strategy

From 23 to 27 May 1994, States Members of the United Nations and other States, met at the World Conference on Natural Disaster Reduction, in the city of Yokohama. On this occasion, participation not only from the United Nations organisations but also various disaster management constituents gathered to express concerns at the continuing human suffering and development hindrances caused by natural disasters. At the same time, the Yokohama conference became a window of opportunity for the inspiration of the **Yokohama Strategy and Plan of Action for a Safer World**. In this Strategy are I. Principles, II. Plan of Action, III. Follow-up Action that have been adopted at the world conference. Especially in the 2 subsections of I. Principles, and II. Plan of Action is statements emphasising and valuing community-based disaster management. Some of these statements are:

   I. Principles
-   *"Preventive measures are most effective when they involve participation at all levels, from the **local community** through the national government to the regional and international level."*
-   *"There is a strong need to strengthen the resilience and self-confidence of **local***

communities to cope with natural disasters through recognition and propagation of their traditional knowledge, practices and values as part of development activities"

- *"In the second half of the Decade, emphasis should be given to programmes that promote **community-based approaches** to vulnerability reduction"*

II. Plan of Action

- *"Stimulate genuine **community involvement** and empowerment of women and other socially disadvantaged groups at all stages of disaster management programmes in order to facilitate capacity building, which is an essential precondition for reducing vulnerability of communities to natural disasters"*

- *"Aim at the application of traditional knowledge, practices and values of **local communities** for disaster reduction, thereby recognising these **traditional coping mechanisms** as a valuable contribution to the empowerment of local communities and the enabling of their spontaneous co-operation in all disaster reduction programmes."*

Why a Review of the Yokohama Strategy in 2004

In his report 56/68 (2001), the Secretary-General recommended (subsequently endorsed by the General Assembly) that preparations be initiated in 2002 "in order to ensure that a comprehensive assessment is made of disaster reduction with a view to identifying ways of further strengthening the efforts of the international community in support of this objective". The review of the Yokohama Strategy endorsed by the UNGA is to be undertaken in conjunction with the global review process, which is a continuous task of the ISDR Secretariat. The key objectives of such a comprehensive assessment will be to: measure achievements since the adoption of the Yokohama Strategy almost a decade ago, define the remaining gaps and opportunities, and agree upon an articulated programme of action and the necessary commitments.

In December 2003, the UN General Assembly General Assembly adopted resolution A/RES/58/214 outlining the Conference objectives as follows:[1]

(a) To conclude and report on the review of the Yokohama Strategy and its Plan of Action, with a view to updating the guiding framework on disaster reduction for the twenty-first century;

(b) To identify specific activities aimed at ensuring the implementation of relevant provisions of the Johannesburg Plan of Implementation of the World Summit on Sustainable Development on vulnerability, risk assessment, and disaster management;

(c) To share best practices and lessons learned to further disaster reduction within the context of attaining sustainable development, and to identify gaps and challenges;

(d) To increase awareness of the importance of disaster reduction policies, thereby facilitating and promoting the implementation of those policies;

(e) To increase the reliability and availability of appropriate disaster-related information to the public and disaster management agencies in all regions, as set out in the relevant provisions of the Johannesburg Plan of Implementation

[1] UN ISDR First Announcement, World Conference on Disaster Reduction. 20 February 2004.

The expected outcome of the Conference was also decided and is described as follows:[2]

- Increased awareness, recognition and political endorsement for implementing of disaster risk reduction and mobilising local, national, and international resources.
- Clearer directions and priorities for action at international, regional, national, and local levels to ensure implementation of the International Strategy for Disaster Reduction and to support the achievement of the Millennium Development Goals and the objectives of the Johannesburg Plan of Implementation.
- Adoption of a set of goals and policy measures for guiding and stimulating the implementation of disaster risk reduction, both on what to achieve and 'how-to-do' risk reduction.
- Launching of specific initiatives and partnerships to support the implementation of the International Strategy for Disaster Reduction.

The Conference is expected to take place between 18-22 of January, 2005. The significance behind this event taking place in Kobe, notwithstanding its purpose as a ten-year review of the Yokohama Strategy, lies in it being in the city that experienced the Great Hanshin-Awaji Earthquake ten years ago in 1995. As an organisation situated in the very city of Kobe, UNCRD has more than ever a reason to actively participate in this process.

International Symposium on
Community Legacy in Disaster Management:
Pre- Event to the World Conference 2005

On 7 February 2004, UNCRD decided to hold an International Symposium on "Community Legacy in Disaster Management". Throughout the years, annual workshops have been hosted by UNCRD in an effort to promote sustainable disaster management that can be designed, implemented and delivered at the community level. UNCRD intends to build upon the extensive efforts made in disaster management at the community level and promote the **International Symposium** based on these experiences and the mandates. The goals of the Symposium are to:

- To determine the issues, challenges, and problems of community-based disaster management that need to be considered and evaluated in preparation for the World Conference in Disaster Reduction 2005.
- To compare and analyse UNCRD's efforts on community-based disaster management activities considering the recommendations of Yokohama Strategy and its Plan of Action.

Presentations and Panel Discussion: Overarching Purpose

At this symposium the audience encompasses a range of experts as well as the public at large. This symposium is to be informative but at the same time critical so that important issues will be raised and analysed. Given this situation, the presentations of CBDM would act as a session for basic information geared towards the general audience. These presentations would inform the general public regarding the basic nature of community-based activities

through different case studies. Therefore the presentations should be clear and concise without much use of specific "jargon" and details that may be more confusing to the general public than informative. Subsequently, the panel discussion would process all the information presented and more to the next level of critical analysis geared more towards the disaster experts and relevant professionals. Therefore, the discussions can be more specific and/or technical. This discussion is to act as the first step in the preparation process towards the World Conference in 2005.

Conclusion

Through the International Symposium, the principal goal is to inform and anticipate meaningful discussion. This event will act as a window of opportunity to raise some of the more important issues in CBDM. At the same time, the International Symposium is to provide ways for UNCRD to prepare for what is the second World Conference in Disaster Reduction 2005.

SYMPOSIUM PROGRAMME

9:30-11:05   **Opening Session**

Opening Speech: Kazunobu Onogawa, UNCRD
Welcome Remarks: Tomio Saitou, Hyogo Prefecture
Introductory Speech: Yasuo Itagaki, The Yomiuri Shimbun
Remarks: Kazuhisa Shibuya, Cabinet Office, Gov. of Japan

Keynote Speech: H.E. Chowdhury Kamal Ibne Yusuf,
     Cabinet Minister, Ministry of Disaster Management
     and Relief, Government of Bangladesh
     "Risk Reduction Precursor to Sustainable CBDM"

Remarks from the UNISDR Secretariat: John Harding
     *"Review of the Yokohama Strategy:
      What has been accomplished in the last 10 years"*

11:05-11:30   *Tea/Coffee Break*

11:30-12:30   **Presentations on
               Community Based Disaster Management**

Overview: Rajib Shaw, UNCRD
Bangladesh Case Study: Shofiqul Alam, CARE
Vietnam Case Study: Sohel Khan, CECI
Philippines Case Study: James Sian, PNRC

12:30-13:30   *Lunch*

13:30-14:00   **Special Reports on Iran-Bam Earthquake**

Yoshinobu Fukasawa, DRI
Masakiyo Murai, CODE

14:00-16:30   **Panel Discussion: What is Community Legacy?**

Co-Chair: Ian Davis, Cranfield Univ., United Kingdom
Co-Chair: Saidur Rahman, BDPC, Bangladesh
Commentator: Tsuneo Katayama, NIED, Japan
                       Kazuhisa Shibuya, Cabinet Office, Japan
Panelist :   Xavier Castellanos, IFRC, Trinidad and Tobago
              Helen MacGregor, DiMP, South Africa
              Zenaida Delica, CDP, Philippines

OPENING SESSION

Opening Speech:
Kazunobu Onogawa, UNCRD

Welcome Remarks:
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"Risk Reduction Precursor to Sustainable CBDM"

Remarks from the UNISDR Secretariat:
John Harding, UNISDR
"Review of the Yokohama Strategy:
What has been accomplished in the last 10 years"

Kazunobu Onogawa
Director
UNCRD
Japan

Mr. Onogawa joined UNCRD, with wealth of experiences in other UN organisations and governmental offices. Seconded by the Ministry of Environment, the Government of Japan, Mr. Onogawa has held positions with United Nations Environment Programme, International Institute for Applied Systems Analysis and others alike. At UNCRD he strives to apply these experiences within UNCRD such as Human Security and Environment.

Good morning everyone. I would like deliver my speech at this International Symposium on "Community Legacy in Disaster Management" representing the United Nations Centre for Regional Development.

First, I would like to thank His Excellency Minister Yusuf from the Ministry of Disaster Management, Bangladesh, speakers, and the others for your participation and co-operation. I would also like to thank the Hyogo Prefecture, the Yomiuri Shimbun Osaka Headquarters, and various other constituent organisations for your participation.

The United Nations Centre for Regional Development (UNCRD) was founded in 1971 in Nagoya, Japan. It was established under support offered by the Japanese Government. The reason behind the establishment of UNCRD in central Japan lies in the fact that this region was able to achieve immense industrial and agricultural growth over the four decades after the World War. It was hoped, during the 1970s, that this experience could be used as reference for development and be applied for world growth.

Subsequently, UNCRD established regional offices located in Nairobi, Kenya and Bogota, Columbia to respond to the needs of the countries in Africa and Latin America and the Caribbean. Under the support from the Hyogo Prefecture, the disaster management office was able to move from the Nagoya office to Kobe in April 1999. As the Disaster Management Hyogo Planning Office, it works to disseminate the experiences and the lessons learned from the Great Hanshin-Awaji Earthquake and to implement disaster management honouring the culture and traditions that are inherent and unique to each community in the course of building a disaster-resilient city.

Last year, the General Assembly made a resolution to implement a World Conference on Disaster Reduction in Kobe in 2005, which also marks the ten-year anniversary of the Great Hanshin-Awaji Earthquake. As a UN organisation that supports the spirit of such UN decision, UNCRD Hyogo Office has decided to attribute this year's International Symposium on "Community Legacy" as a "pre-event" leading to the World Conference.

The purpose of this Symposium is twofold. First, UNCRD Hyogo Office will capitalise on this occasion to discuss and revise the Guidelines and Tools that have been drafted for an on-going community-based disaster management project. Second, through this symposium, UNCRD hopes to, in the course of preparing itself for the World Conference on Disaster Reduction, appeal to society at large the importance of community-based disaster management through meaningful discussion. On this occasion, it is hoped that debates and discussions will take place regarding the nature of community-based disaster management, looking at the notion of community from various perspectives.

Next year, Kobe will commemorate its tenth year anniversary of the Great Hanshin-Awaji Earthquake. Through this tragedy, people were reminded of the importance of community bonds that had been weakened through rapid modernisation. UNCRD's activities in disaster management, try to address this very point and implement community-based disaster management. Of course it is imperative that a country takes on an active role for disaster management. Nonetheless, it is through community-based activities that would lead to an ideal achievement of disaster management, even beyond what is capable through national level strategies. The principal philosophy of disaster management is that each individual is responsible for his/her life and possessions. Hence, in order for each individual to be able to act upon disaster management, it is important that activities at the community-level be implemented. It is hoped that through these sessions and the experiences of the experts, we can achieve meaningful exchange of ideas on these issues.

Lastly, I would like to thank those of you who have come from such a distance, Japanese participants, NGOs, students and citizens alike for your participation. I have high hopes that this Symposium will act as an opportunity to deepen understanding of community-based disaster management and as a beneficial session to all those who participated today. Thank you very much.

Tomio Saitou
Vice Governor
Hyogo Prefecture
Japan

Mr. Saitou became the first Chief of Emergency Management, Hyogo Prefectural Government, to oversee the risk management at Hyogo. He enriched the disaster management system at Hyogo prefecture, applying the lessons learned from the Great Hanshin-Awaji Earthquake. He has led many cases of emergency responses, including the one on the collision of the Russian Tanker and leak of heavy oil.

I would like to congratulate everybody and express my compassion for the realisation of the International Symposium on "Community Legacy in Disaster Management". Representing the 5.6 million people of this prefecture, I would like to welcome all of you today to this event. As Director Onogawa mentioned in his speech prior to mine, nine years have passed since the occurrence of the Great Hanshin-Awaji Earthquake. At the same time, over the nine years, those who had become victims of this earthquake have toiled away for the recovery of their livelihoods. Furthermore, it is my sincere belief that the support these people received from various nations around the world certainly added to their strength in the recovery process. I would like to express how thankful I am for such support.

Nine years ago, we lost so many lives in such a short period of time. We lost much of the beautiful and cherished cityscapes of Kobe as well as friends and family members who are priceless to us. Nonetheless, even from such tragedy, we learned. One of the important lessons learned from such a tragedy is that "we are in a position to protect the earth we live in." In Japan we have a saying "we can depend more on our close neighbours than our relatives away in the distance". That saying has never left a bigger impression on me than when that earthquake took place. As a matter of fact, nearly 80 per cent of those who were in need of help were given help by their neighbours. Consequently, I believe such a phenomenon highlights the importance of enhancing a community's capacity in disaster management.

Acting upon such lesson learned, Hyogo Prefecture has established a system where communities at the local level can be involved in disaster management activities. Over the past nine years, the Prefectural Government established 6,000 organisations for such a purpose, involving 95 per cent of the prefecture's area. It is my strong hope that in times of disaster, these organisations would have the capacity to protect their area of responsibility. Furthermore, I would like to share these experiences and information outside the Hyogo Prefecture, with the world. By sharing information and knowledge, I hope that people who face natural disasters would be encouraged and would be able to find ways to curb the number of victims resulting from future natural disasters.

In this respect, I anticipate much from the World Conference on Disaster Reduction that is planned for January in 2005. Furthermore, I am excited to know that this world conference will take place here in this region, as I firmly believe that the success of this event would lead to global consensus building on the importance of disaster management. It is my understanding that this symposium is considered one of the preliminary events leading up to the world conference. In this sense, I hope for its success and that such an event will lead to the mitigation of disasters world-wide. Thank you very much for your participation.

Introductory Speech: Yasuo Itagaki, The Yomiuri Shimbun

Good morning everyone, I am Itagaki from Yomiuri Shimbun. Allow me to give a brief introductory speech for this symposium.

Nine years have already passed since the Great Hanshin-Awaji Earthquake. The Yomiuri Shimbun, as a newspaper company, has not only taken the initiative at the time of the incident to report daily regarding the site of disaster, reflecting and revealing the lives of those who experienced the disaster, but also publicly addressed the issue of rehabilitation in the true sense of the word.

We are currently in our fourth year co-organising such an event with UNCRD, as we strive to fulfil our responsibility of disseminating information about the "know-how" of disaster management to the rest of the world. As a pre-event to the United Nations World Conference on Disaster Reduction, we have also had the pleasure of having the United Nations International Strategy for Disaster Reduction to co-organise this event as well. This year the topic of the symposium is, "Community Legacy in Disaster Management".

It is my understanding that in the case of the Great Hanshin-Awaji Earthquake as well as many other disasters around the world it was the local organisations and neighbourhood fire fighters which that were effective in containing the damage from the disasters to a minimum. We have all seen the earthquake that occurred in Algeria in May and the recent earthquake that occurred in Iran in December. It seems to me that reducing the number of natural disasters themselves may be difficult, but, through the use of local knowledge and learning from past experiences of disasters, it would be possible to curtail the effects of disasters. In this sense, we believe that the notion of "community" plays a key role in achieving such an effect.

I believe that at this symposium, we have much to gain from the experiences that Minister Yusuf will explain about his experiences of community based disaster management in Bangladesh. Also, I expect that there is much to be gained from other experts representing seventeen nations, in how "community ties" can be an effective means of mitigating disasters. It is my wish that through discussions, we can gain guidance on disaster management that could be applied in every disaster-threatened nation.

As we head towards the tenth anniversary of the Great Hanshin-Awaji Earthquake, the Yomiuri Shimbun believes that coverage of natural disasters is one of the largest themes entrusted upon us to fulfil. I believe that it is our responsibility, as a media company that we are associated closely with disasters, to carry the message of natural disaster world-wide without limiting ourselves to the use of newspaper as a medium but through various means.

Lastly, I would like to thank UNCRD, Hyogo Prefecture, as well as the participants of this symposium from the bottom of my heart for your involvement. Thank you again.

Yasuo Itagaki
President
The Yomiuri Shimbun-Osaka
Japan

Mr. Itagaki oversees the major media company that has been serving the Japanese public for over 50 years. The firm has informed the public not only the devastating effects of the Great Hanshin-Awaji Earthquake but also the importance of awareness and public preparedness. Mr. Itagaki anticipates that the company continues to strive towards enhancing society by creating, collecting and distributing high-quality news, information and entertainment.

Kazuhisa Shibuya
Director
Policy Management Office of
Disaster Management
Cabinet Office
Japan

Mr. Kazuhisa joined the Ministry of Construction in 1983 upon graduating from Tokyo University. He further studied at the graduate school of the university of Michigan where he received Masters Degree in Public Administration. Prior to his current position at Policy Management Office of Disaster Management, his previous experience includes working for Construction College and Chiba Prefectural Government.

I would like to congratulate you on the realisation of the International Symposium on "Community Legacy in Disaster Management", a pre-event to the anticipated United Nations World Conference on Disaster Reduction in 2005.

As you know, Japan has geographical features that make it susceptible to natural disasters. Obviously, in 1995, more than 6,400 people were lost in the Great Hanshin-Awaji Earthquake that occurred in Kobe. Through this experience, we learned many precious lessons, hoping to apply them to disaster management activities undertaken at the national level. In addition, we have been actively involved in disaster management at a global level by disseminating our experiences of disaster through the implementation of events such as the world conference that took place in Yokohama, as one of the first of its kind.

Also as a part of global contribution, the national government invited the second World Conference on Disaster Reduction to the very city that experienced the Great Hanshin-Awaji Earthquake one decade ago. Through much support given by various nations, it was decided at the UN General Assembly in December that such a conference would be realised. At this world conference, the goal is to review the decade of Yokohama Strategy and its Plan of Action as well as suggest enlightened ways of disaster management for the 21st century.

Subsequent to the Yokohama Conference, the world embraced the idea of establishing a disaster management department in government offices as well as the consensus for information-sharing, as we are doing at this very moment through this international symposium. On the other hand, the world is still experiencing environmental degradation, rapid urbanisation, and increased number of economic and social damages caused by disasters. The recent case of earthquake in Iran, which resulted in over 30,000 casualties, is probably still fresh in your mind.

At the up-coming world conference, we must think about how we can approach the problems associated with disasters, establish concrete targets to achieve, and when they should be achieved. We should strategize ways of achieving these targets in detail. Therefore, I urge you to give us the support for this anticipated event next year.

It is my impression that we will be hearing and seeing various opinions and suggestions from experts around the world at this International Symposium on "Community Legacy in Disaster Management". While "natural hazards" such as floods, earthquakes, and volcanic eruptions are inevitable, they need to be addressed as they have the tendency to turn into "natural disasters". While it is impossible to prevent natural hazards, themselves, we can find ways to prevent them from becoming disasters through various ways. Certainly,

one important element in disaster management is to strive towards creating disaster-resilient communities.

Therefore, it is important that not only the government but also citizens, private sector, non-profit organisations, and various other organisations co-operate with the same intent to create a disaster-resilient society. Community-based disaster management leads to the empowerment of each individual, hence, attributing to the sound and healthy growth of society in general. I believe such an outcome is favourable and desirable to all nations world-wide. It is my hope that we could discuss some of these issues to gain further understanding and support at this event today.

Lastly, I would like to thank UNCRD, UN ISDR, the Yomiuri Shimbun, and Hyogo Prefecture for organising this Symposium. I deeply hope that this will be a fruitful event and wish you much success. Thank you.

Risk Reduction Precursor to Sustainable CBDM

H.E. Chowdhury Kamal Ibne Yusuf
Cabinet Minister
Ministry of Disaster Management
and Relief
Bangladesh

The Honorable Minister was born and raised in a prominent political family of Bangladesh, a respectable Muslim Zamindar family. He started his active political life joining the Bangladesh Nationalist Party. In 1970, the Honorable Minister was elected Member of the Parliament and became Minister of State for Local Government, Rural Development and Cooperatives as well as Minister of Relief and Rehabilitation before being sworn into his current position. He holds a Bachelor's Degree in Political Science with honors.

Community-Based Disaster Management (CBDM) is an approach that involves direct participation of the people most likely to be exposed to hazards, in planning, decision-making and operational activities at all levels of disaster management responsibility. A community is defined as a sense 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.

Community-Based Disaster Management (CBDM) is where people with common interest and concerns but with differentiated responsibilities act together in bringing their resources, capacity and commitment into play, to ensure disaster prevention and minimisation of losses and damages.

Participation involves shifts in power, within communities, between people and policy-making and resource holding organisations, and within the structures of those organisations. In most development processes supported by policies and institutions world-wide, *participation* has been, and is still used *as a means* – to accomplish the aims of a project more efficiently, effectively or cheaply. For sustainability of the efforts at community level, *participation as an end* is essential – where the community sets up a process to control its own development.

The more spontaneously people and communities are able to engage and participate, as a means towards an end – the better will be the achievements in effective and successful disaster reduction. This involves recognising each other's needs and concerns – as individuals, households, or organisations, as well as each other's ability and capacity to participate in addressing these needs.

In reality, it is observed that during periods of crisis arising in the wake of natural disasters, the members of the community actually plays the lions share in early earning, evacuation, relief, shelter, resettlement, reconstruction and recovery. The services that each provides to the other are often not market-based or incentive-supported, and the benefit from these services to individuals, household or the community remain unaccounted for, in official statistics.

Among the actors at community level, the poorest are the most vulnerable and at-risk. Their capacity, in terms of preventing disasters, in reducing risks, or in recovering from the shocks of any disaster, is often limited in terms of their assets and other formal and informal arrangement of entitlements and reciprocity.

Given their state of poverty and deprivation, the poorest in any community fail to participate meaningfully and adequately in any community-based disaster management (CBDM) initiative. This very factor limits the chances of enabling effective institution-building toward sustainable CBDM.

Structural measures and solutions toward preventing disasters or mitigating their adverse impacts are investment intensive. For a country like Bangladesh, even where they may be feasible otherwise, cannot be implemented due to insufficient domestic resources. However, non-structural measures, such as training, other facilitation, support or services required are often more effective and less investment incentive, especially when taken up at community and household levels. Therefore, however limited maybe our resources, we could maximise the benefit stream and its impact by investing in household and community level disaster risk reduction measures.

Sustainable Development of the Poorest through Disaster Reduction is an initiative of the Ministry of Disaster Management & Relief (MDMR), Government of Bangladesh, that demonstrate integration and mainstreaming of relief resources for the poor into their long-term development, by reducing their risks to natural disasters. This will enhance the value added from the significant amount of resources spent every year for disaster relief. The poorest, most vulnerable to natural disasters, cannot recover from the damages of natural disasters only from relief resources.

FLOOD-PRONE BANGLADESH

The Ganges, The Brahmaputra, The Meghna River Basins

AREA OF BANGLADESH : 145,000 SQ KM
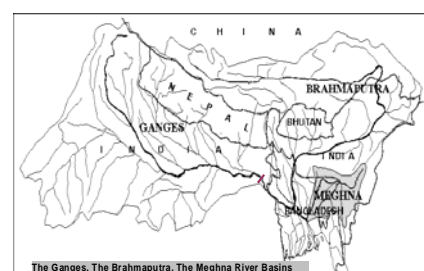**CATCHMENT AREA : 1.6** MILLION SQ KM

On the institutional side, three challenges are addressed. First, mainstreaming relief resources into long-term development of the poorest. Second, mainstreaming disaster reduction strategies into development policies, institutions, and processes. Third, promoting and advocating for disaster risk reduction strategy mainstreaming among development partners.

Essential livelihood assets and options necessary to support the poorest to bounce back will be facilitated through this initiative. Ultimately, the targeted poor will build resilience to natural disasters, assisting in overcoming poverty. The initiative will mainstream access to public and development resources by the poorest of households. Such access will be materialised through the linkage and relationship-building with service providers within and outside the community, leading to the empowerment of the targeted households. This new initiative is also innovative and builds towards sustainability in CBDM through the integration of the local government as a mainstay in enabling and promoting this institutional shift toward ensuring participation of the poorest which conforms to the Yokohama Strategy.

The ***Sustainable Development of the Poorest through Risk Reduction*** initiative is designed to lead to ownership of the entire implementation process, outcome and impacts by its target beneficiaries. This initiative will add value to the recipient that is much more that the value that is created through existing systems and arrangements. The initiative will be participatory all the way through. This will include transparency across concerned and responsible agencies, accountability to the public, especially to the target beneficiaries. Multistakeholder platforms will be established to develop community-level participatory disaster response strategies and action plans.

The project aims to contribute towards demonstrating how community-based disaster management frameworks can be *integrated* / augmented into the livelihood development process and arrangements that are already underway

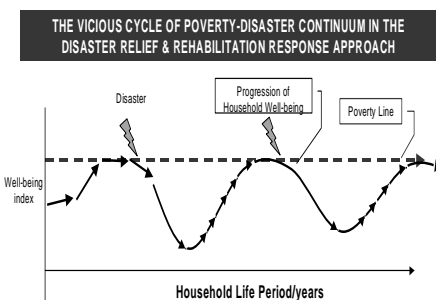through various channels (government, nongovernment and people's initiatives).

The ***Sustainable Development of the Poorest through Risk Reduction*** initiative contrasts from existing relief and rehabilitation programmes and practices. The approach is *demand-driven,* i.e., the community and people who are vulnerable determines what livelihood enhancement support would ensure risk reduction. Current approaches practised by others are mostly prescriptive.

Existing perception among relevant actors and institutions, beneficiaries and the society at large with respect to the role and mandate of the MDMR and DRR is that of food to ensure survival and emergency rations, to help maintain the lives of people in distress. The recipient and intermediary in the whole supply and delivery chain are driven, consciously and subconsciously by the notion that the impact of such support is *immediate* and *short term*. The proposed initiative will focus on building capacity of targeted poor through means to strengthen their vulnerability to natural disasters. This will involve *long-term* planning at community levels and life-cycle planning for household and individual livelihoods.

The ***Sustainable Development of the Poorest through Risk Reduction*** initiative attempts to integrate the various resource flows toward the poor so that they can practice livelihood management in a manner that takes account of their disaster prevention, preparedness and recovery needs. This is an *ex-ante* or precautionary approach. In contrast, existing practices follow a linear approach isolating disaster management from their overall development processes. These are *ex-post* or curative approaches.

The ***Sustainable Development of the Poorest through Risk Reduction*** initiative is also holistic as it attempts to address the environment, social, economic and individual needs and interests that need to be satisfied to ensure livelihood sustainability. The project is designed to lead ownership of the entire implementation process, outcome and impacts by its target beneficiaries. This initiative will add value to the recipient that is much more than the value that is created through existing systems and arrangements. The initiative will be participatory all the way through. This will include transparency across concerned and responsible agencies, accountability to the public, especially to the target beneficiaries. Multi-stakeholder platforms will be established to develop community-level participatory disaster response strategies and action plans. Targeted households will be assisted in assessing their livelihood development needs and to initiate a process of consultation and consensus-building towards utilising development, relief and other social support towards livelihood asset development and management, in a way that reduces vulnerability to disasters.

Management and coordination will include an active role and participation of the communities in a way that ensures the sustainability of the emerging community institutions initiated during the project period. Participatory action plans will result from consensus-building which will include agreed terms and conditions as well as defined role and responsibilities over specific time frames.

THE VICIOUS CYCLE OF POVERTY-DISASTER CONTINUUM IN THE DISASTER RELIEF & REHABILITATION RESPONSE APPROACH

Participatory monitoring and ongoing evaluation will be practised and mainstreamed by making the target communities/households develop indicators to assess performance, results, and sustainability. They will take charge of initiating and continuing monitoring their implementation of action plans.

It is hoped that through the demonstration of this initiative, the poorest will be empowered enabling them to participate effectively and contribute to playing their due role in disaster preparedness and management and its governance, thereby ensuring sustainability of community involvement in disaster management activities.

Key Words / Terms:
sustainable CBDM, vulnerability, risk reduction, empowerment of the poorest

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Mr. Harding is an Associate Officer with the UNISDR Secretariat, where he works on policy issues. He has a particular interest in the linkage between disaster risk reduction and climate change. His background is in oceanography and hydrology.

Review of the Yokohama Strategy:
What has been accomplished in the last 10 years

Minister, Governor, Colleagues, Ladies and Gentlemen,
I would like to start by thanking UNCRD for providing this opportunity to make a few remarks today here in the City of Kobe, Hyogo Prefecture, on behalf of the Director of the International Strategy for Disaster Reduction Secretariat (ISDR), Mr Salvano Briceño. While Salvano Briceño could not attend today due to prior commitments this has provided me with the opportunity to participate in a very high level workshop during the two previous days and of course it is always a pleasure participating in an event organised by my former boss in the UN system, Mr Kenji Okazaki. Kenji has left all colleagues in Geneva with excellent memories of a very thorough and dedicated friend.

Being in this city is very appropriate to discuss a more effective manner to deal with future disasters, as Kobe is a city that has been tragically hit by the Great Hanshin-Awaji Earthquake in 1995. The people of Kobe have a lot to teach the rest of the world, based on their experience of solidarity in recovering from such an event.

It is in another very important Japanese city, Yokohama, that the mid-term review of the International Decade for Natural Disaster Reduction (IDNDR, 1990-1999); the first World Conference on Natural Disaster Reduction, was held in 1994. In the intervening period, the "Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation" and its Plan of Action, have served as the international blueprint for disaster reduction.

Meanwhile as we are all too aware, the global human and economic losses due to natural disasters have continued to increase despite efforts undertaken by governments and the international community to raise awareness on risk reduction needs. Global summaries for 2002 report the occurrence of over 500 major disasters, with over 10,000 people killed, 600 million people affected, US$ 55 billion in total damages, and US$ 13 billion in insured losses.

Developing countries are disproportionately affected, with their losses rising to about five times higher per unit of Gross Domestic Product (GDP) than for the rich countries, sometimes exceeding a year or more of hard-won and desperately needed economic development. Least Developed Countries (LDCs) and Small Island Developing States (SIDS) are the groups of countries that are most vulnerable.

It is remarkable that disasters not only affect the poor and traditionally vulnerable countries but also those thought well protected: Japan, Canada, the Czech Republic, France, Germany, Poland, the United Kingdom, and the United States experienced record-setting floods in recent years of such magnitude that previously accepted procedures for protection and thinking

about the utility of structural barriers have to be re-evaluated.

The underlying problems of growing vulnerability to hazards are largely an outcome of development activities and in particular to poverty. Every day development decisions being made at local and international levels are more often increasing the vulnerability to hazards than reducing the risk.

The UN General Assembly adopted the International Strategy for Disaster Reduction (ISDR) in December 1999 to follow up on the IDNDR achievements and facilitate the implementation of disaster reduction world-wide. Progress is being made and disaster reduction is now recognised as crucial for sustainable development in the Johannesburg Plan of Implementation (JPoI) issued at the World Summit on Sustainable Development (WSSD) (2002).

The process of reviewing disaster reduction initiatives has become an essential function of the ISDR, a capacity we are looking to enhance gradually with your help. The initial work reflected in *Living with Risk* will contribute to the process of the ten-year review of achievements and shortcomings in the implementation of the Yokohama Strategy and Plan of Action of 1994. This exercise, started in 2002, is expected to be completed by 2004. It should also contribute to shaping the growing international agenda for disaster risk reduction.

Living with Risk - a global review of disaster reduction initiatives provided the first overview of progress and challenges and was published by the ISDR Secretariat in 2002.

www.unisdr.org

The review points to a great deal of learning and experience gained by individuals, communities, governments, and specialists from different fields during the last ten years. Many national and local plans have benefited from progress made at all levels on employing new institutional and technical tools for improving disaster reduction practices. Particularly valuable advances occurred in the increasing use of risk assessments, specific methodologies and research initiatives, early warning systems, information, training, education and public awareness activities

The Government of Japan provided substantive support to this pioneering effort that is gradually becoming an essential reference guide and training instrument in its field.

Nevertheless, no formal evaluation of achievements or systematic monitoring of progress is currently carried out. Therefore, the ISDR secretariat has embarked with partners on developing a process for a continuous global review of disaster reduction initiatives.

The aim is twofold: to gather and provide information on ongoing activities and the evolving "state of the art" of disaster risk reduction, and to initiate the development of a conceptual framework for monitoring progress made by governments, civil society, and other relevant organisations.

Remarks from the UNISDR Secretariat
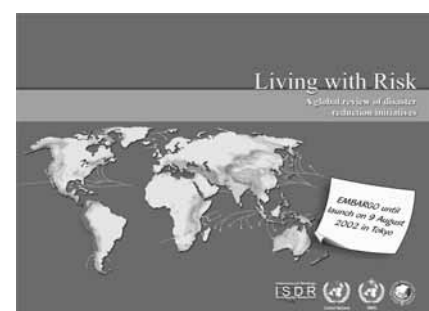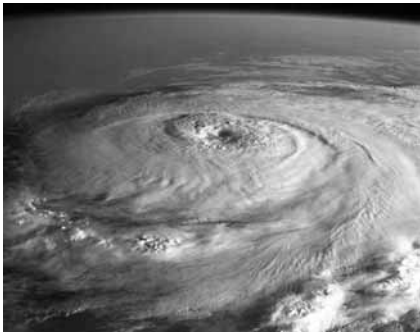
Only by showing evidence of the benefits of reducing the vulnerability to disasters can future investment and priorities in this area be sustained. The continuous work of local and grass-roots organisations, governments, the scientific and technical community, international and regional organisations remains essential to unite efforts in a common process to ensure sustainable development. This is where the ISDR mechanisms should make a difference.

Throughout this review it is often repeated that there is a need for disaster and risk reduction to be an essential part of broader sustainable development concerns. The international development targets set for the year 2015 in the Millennium Declaration cannot be reached unless the heavy toll of disasters in human and economic terms is reduced. That is because risk and vulnerability to natural, technological and ecological hazards are driven by social, economic and environmental activities.

Already the findings of the initial review have raised a great deal of interest, in particular from governments and communities in disaster-prone areas who are demanding a stronger plan of action for reducing risk and vulnerability to natural and technological hazards.

The international community bears a responsibility to motivate, and indeed to support, policies and actions in developing countries that pursue structured and evident disaster risk reduction strategies.

Encouragingly, the Millennium Development Goals (MDG) (2000) and the Johannesburg Plan of Implementation of the World Summit on Sustainable Development (WSSD, 2002) recognise disaster risk reduction as a crucial element for sustainable development. Last week at the preparatory meeting for the ten-year review and preparation of follow-up actions to the Barbados Plan of Action for Small Island Developing States, governments and organisations present also referred to disaster reduction as a priority action.

The current context calls for an international meeting among local, national, and international policymakers active in social and economic development and environmental management issues, disaster risk managers and practitioners, as well as civil society and community groups. The opportunity provided by the conclusion of the Yokohama review, as well as the tenth anniversary of the Great Hanshin-Awaji Earthquake, and the offer from the Government of Japan to host a World Conference in the city of Kobe, Hyogo Prefecture, justifies the time and place for such a conference.

The launching of the International Decade for Education on Sustainable Development which will run from 2005 to 2015 is also relevant as education is a main component of disaster reduction and the WCDR-2 will be the first international meeting of this Decade.

The objectives of the World Conference on Disaster Reduction that will be held in this city, from 18 to 22 January 2005, are firstly to conclude and report on the review of the Yokohama Strategy and its Plan of Action, based on a comprehensive Framework on Disaster Risk Reduction. A detailed review of

the achievements, gaps and critical challenges facing the international community will be presented at the event.

The Conference should also identify activities aimed at ensuring the implementation of relevant provisions of the Johannesburg Plan of implementation of the World Summit on Sustainable Development on disaster risk reduction and share related best practices and lessons learned.

In addition, two of the priority objectives are to further increase awareness of the importance of disaster reduction policies and to increase the reliability and availability of disaster related information.

How can this be achieved and are the expected outcomes of the Conference. In a nutshell, these could include increased political endorsement and mobilisation of resources for disaster reduction. Clearer directions and priorities for action are needed for disaster reduction.

Based on initial consultations, and bearing in mind that the outcomes of such events are government prerogatives, the Conference will adopt a set of goals and policy measures for guiding and simulating the implementation of disaster risk reduction, both on what to achieve and 'how-to-do' risk reduction. Finally, to support the implementation the Conference will launch specific initiatives and partnerships to meet identified benchmarks and targets.

Over the last couple of days we heard of the importance of community involvement and their active participation should be encouraged in order to gain greater insight into the individual and collective perception of development and risk, and to have a clear understanding of the cultural and organizational characteristics of each society.

This knowledge is of the utmost importance to determine those things which favour and hinder prevention and mitigation, and in order to find effective and efficient means to reduce the impact of disasters for the development of future generations.

Vulnerable developing countries should be enabled to revive, apply and share traditional methods to reduce the impact of natural disasters, supplemented and reinforced by access to modern scientific and technical knowledge. The existing knowledge and know-how should be studied and efforts should be made to ameliorate, develop and better apply them today.

There is a strong need to strengthen the resilience and self-confidence of local communities to cope with natural disasters through recognition and propagation of their traditional knowledge, practices and values as part of development activities

Where governments have not done so already, there is a need to regain a level of wide and inclusive national participation, before a disaster occurs. This public responsibility will require a collective discipline that can be sustained through the education and practice of many trades and professions. This

Remarks from the UNISDR Secretariat

Regional and Thematic Meetings
2003-2004

event today is therefore seen as an important contribution to the World Conference on Disaster Reduction.

To conclude, reversing current trends in disasters, requires that governments and communities must understand that disaster reduction policy is a wise investment. Direction and resource allocations often need to be provided from higher levels of authority within a society, as much as decisions and individual commitment need to grow from the local understanding and active participation of those people most immediately affected by disaster risks.

The preparations for, and the outcomes of, the World Conference on Disaster Reduction, that will be held in only eleven months in this city should be seized by all as an opportunity to achieve this.

Thank you for your attention and warm hospitality.

Presentation on Community Based Disaster Management

The presentations made on **Community-Based Disaster Management** (**CBDM**) at this International Symposium call upon the audience to learn more about the achievements, the importance, and the effectiveness of participatory disaster mitigation activities. "What is CBDM?" "How does CBDM differ from other large-scale mitigation efforts?" "What are some of the successful case studies of CBDM?" "How can CBDM sustain and stand the test of time?"

Disaster management is often regarded as a government operated, government-owned effort, which normally comes into operation during times of emergencies. CBMD is a concept that tries to imply otherwise: that disaster management is and should be undertaken by not only the government but also the people who are the direct victims of disasters.

Through these presentations, various types of CBDM case studies are introduced and explained in detail. Also, these presentations will call out the important elements in CBDM that yielded "success" in their implementation. The social, cultural, economic, and even political elements that were critical in their success would be noted and elaborated upon.

Furthermore through these presentations, the notion of "sustainability" in CBDM would be identified and presented. In CBDM it is critical that these efforts can maintain and sustain in the communities long after the official "project term" is complete. "How can that happen?" The presenters would address this question through their explanation of the successful case studies and identify the unique and critical elements of sustainability in CBDM.

Overview: Rajib Shaw, UNCRD
Bangladesh Case Study: Shofiqul Alam, CARE
Vietnam Case Study: Sohel Khan, CECI
Philippines Case Study: James Sian, PNRC
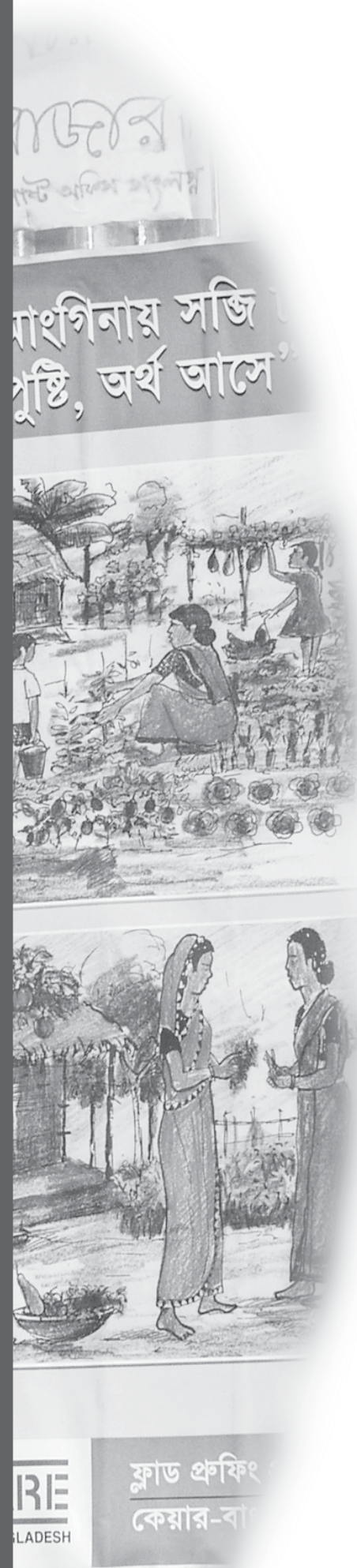
Rajib Shaw
Researcher
UNCRD Disaster Management
Planning Hyogo Office
Japan

Mr. Shaw comes with extensive knowledge and experience in the field of disaster management. He has led many UNCRD projects, including the recent initiative of Community Based Disaster Management. Mr. Shaw continues to apply his expertise on disaster management and community development. He has extensive experience in the Asian region deploying projects in Bangladesh, Cambodia, India, Indonesia, Vietnams and the likes. Mr. Shaw holds a Masters Degree in Education from Yokohama University and a Ph.D from Osaka City University.

[1] D. W. McMillan and D. W. Chavis, "Sense of Community: A Definition and Theory," *Journal of Community Psychology* 14 (1986):6-23.

[2] See UNCRD, *Disaster to Community Development: The KOBE Experience* (Kobe, 2003).

[3] A. Maskrey, *Disaster Mitigation: A Community Based Approach* (1989).

Community Based Disaster Management: Challenges for Sustainability

"**C**ommunity 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"[1]. Many people define community in different ways, however, the current definition is preferred because it is non-scale, and non-characterised. Thus, community includes not only the people living in a certain location, but also includes the local government, local business sectors, local academic bodies and nongovernmental organisations (NGOs). A natural event becomes a disaster when it causes losses to lives and/or properties. Since disasters affect people's livelihood, involvement of people as individual, and community as collective, are important to reduce the impacts of disasters.

Natural disasters occur every year and could happen anywhere in the world. 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 neighbours and relatives. Statistics show that 85 per cent of the people either self-evacuated or were rescued by neighbours.[2] This indicates the importance of community and neighbours immediately after the event. Since the reconstruction programme incorporates both physical and social issues, the involvement of people in the recovery process is the key to success. It is said that Kobe reconstruction remains stagnant at 80 per cent, which is contributed by physical recovery. Similar reconstruction programmes in other parts of the world also reach to similar conclusion, that community participation and involvement is the universal process, and does not depend on the development level of the country.

The other aspect of community involvement is its sustainability. Government, nongovernment and international organisations 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 of people's involvement in a project. The most common elements are partnership, participation, empowerment and ownership of the local communities. Unless the disaster management efforts are sustainable at both individual and community level, it is difficult to reduce the losses and tragedy. While people should own the problems, consequences and challenges of any mitigation and/or preparedness initiative, it is necessary to see people's involvement in a broader perspective, which is related to policy and strategy.

Community Based Disaster Management (CBDM) has been a popular term for the last several years.[3] However, in only a few cases has it been incorporated in to policy issues. It is a common notion that grass-root initiatives are the responsibilities of the non-government organisations. Thus, the major challenges of the CBDM are: (a) sustainability of the efforts at the community

level; and (b) incorporation of the CBDM issues at the policy level. To be effective and to create 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. To study these factors, the United Nations Centre for Regional development (UNCRD) has formulated a three-year project. The goal of the project is to achieve safety and sustainability of livelihood for effective disaster mitigation, focusing on three key elements: self-help, co-operation, and education. This goal is to be achieved by setting following specific objectives:

-   To study the effectiveness of grass-roots initiatives from 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 the best practices through training and capacity-building

Three years of the project are aimed at following outputs:

Year 1(2002): Development of Framework for sustainability of CBDM,
Year 2 (2003): Development of Guidelines for sustainability of CBDM, and
Year 3 (2004): Review of 10 years of CBDM initiatives

The framework is developed based on six case study experiences for three hazards: Cyclones: India and the Philippines, Earthquakes: Indonesia and Nepal, and Floods: Bangladesh and Cambodia. This framework will be enhanced by the development of guidelines in the 2003, and a 10-year review of CBDM activities will be performed in 2004.

All six countries are highly vulnerable to natural disasters, and consequently, these countries have adopted innovative approaches of community involvement as a long-term process. The State of Orissa in India, facing the Bay of Bengal is constantly visited by strong tropical cyclones, whereas the Philippines, in the Pacific Ocean, experience 19-21 tropical cyclones every year with about 3-4 considered very damaging. Bangladesh and Cambodia share similar hazard characteristics since their flood-prone communities are affected by annual floods due to intense monsoon rains and overflowing of rivers that are shared by other countries in their respective regions. Nepal and Indonesia are two of the most earthquake-prone countries in the world and there is evidence that their risk exposure to future major earthquakes is very high. The level of community participation is different from country to country, which is a result of the existing socio-political scenario.

Six counterparts were chosen for 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, and,
The Philippines: International Institute for Disaster Risk Management (IDRM).

Overview of CBDM

To collect information on the case studies in a uniform way, a set of questionnaires was developed, and data were collected based on the following aspects:
- Identifying information about the project site
- Identifying information about the project
- Baseline Characteristics, prior to the start of the project
- Motivation and Purpose of the project
- Methodologies for community participation
- Methodologies for human resource and organisational development
- Methodologies for stakeholders partnership
- Methodologies for financial and community assets development
- Analysis of the results of the project
- Analysis of the current level of community participation, and
- Analysis of community perception on sustainability

Each agency/organisation has highlighted certain conditions that they would normally place emphasis on within their regular mandate. Thus, 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", vulnerability is comprehensively considered in the design of the CBDM programme. In Cambodia, the agency involved in the project put emphasis on food shortages, and the vulnerability of the means for food production. In the India case, people's lives and property, particularly livestock are considered most at risk as a consequence of the super cyclone that hit the State of Orissa in 1999. In the Philippines, the local government which has the responsibility over local governance addresses the vulnerability of the general socio-economic development of the municipality. In Nepal and in Indonesia, the agency puts emphasis on the vulnerability of physical structures, particularly school buildings vis-à-vis the effects of major earthquakes.

It is observed that for CBDM to be successful, implementers should be adept at identifying and mobilising as many stakeholders as necessary. In some cases, relationships among stakeholders are formal and legislated (Philippines and India), but some cases also show that informal relationships do not hinder partnership arrangements at the community level.

Most of the projects under study promote tangible accumulation of physical and economic assets to reduce vulnerability. These are in the form of:
- Village contingency fund, and availability of credit for income-generating activities;
- Micro-solutions, small and medium scale infrastructure projects that reduce impact of hazards;
- Equipment and materials such as for latrines, water supply, warning-communication and rescue and evacuation facilities;

Some studies focus on providing intangible "assets" such as technology in disaster resistant construction, and access to information centres. Most have attempted to integrate these projects into regular development planning and budgeting to ensure sustainability. This is done through legislation and incorporating vulnerability assessment and reduction into regular development project.

Based on the experiences of the case studies, the following is a list of the factors that enhance sustainability of CBDM.

1. Promote and strengthen, a "culture of coping with crisis"
2. Enhance people's perception on vulnerability
3. Recognise motivation of community initiative
4. Increase community participation and empowerment through institutionalisation
5. Focus on need-based training approaches
6. Involve diverse stakeholders based on the needs and objectives in both formal and/or informal ways
7. Promote tangible and intangible accumulation of physical, technological and economic assets as the project outputs
8. Promote the integration of community initiatives into regular development planning and budgeting to ensure sustainability.
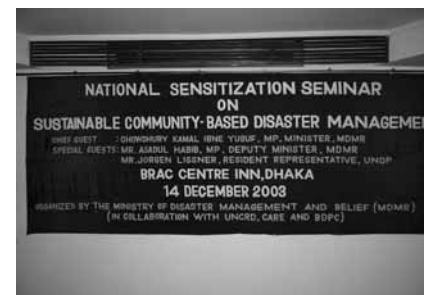

In the second year (2003), the outputs of the case studies were analysed, the common elements/factors for sustainability were identified, and a set of Guidelines and Tools were prepared. The Guideline is a generic guideline, and the Tools were for five end-users: policymakers, national government disaster managers, local government disaster managers, trainers and community based organisers (CBOs). These Tools were tested in Bangladesh, the Philippines and Viet Nam, and were reviewed by several resource experts and resource persons. Partners for the field-testing in these countries were:

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

The findings of the case studies were discussed in the two-day working group meeting in Kobe. The participants of the workshop highly evaluated the Guidelines, and commented that it was the first move to cover a wide range of stakeholders from national government, policy-makers to local government, community workers and trainers. CBDM is only sustainable when all these stakeholders work together to serve the needs of the community. Participants suggested that the document with its graphics and illustrations is 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. Many countries, such as Bangladesh, Viet Nam, and Indonesia, expressed their willingness to translate this document into the local language, and circulate it widely. A representative from the West Indies suggested strongly that it should be translated into Spanish for its use in Latin America and the Caribbean. Many country representatives commented that the final document would be formally presented to their National Government Disaster Management Committee, and with their approval, its use should become mandatory at different levels.

Shofiqul Alam
Project Coordinator
CARE Bangladesh
Bangladesh

Mr. Alam has excellent skills in managing both development and emergency-relief programmes. He is an experienced manager of Disaster Management for CARE Bangladesh where he has over 11 years of experience in planning and implementing community based disaster preparedness, mitigation and emergency response activities. He has strong background in training and capacity building at CARE, partnering with the NGOs and community based organisations. Mr. Alam holds a degree in Civil Engineering and is pursuing an MBA degree.

Community Based Flood Proofing in Bangladesh

Flood Environments

Floods are an annual feature of life in Bangladesh, and the extent of flooding each year varies with the flood environment at a particular location. The flood environment is influenced by various factors including the source of flood water, the amount of rainfall, the layout of water bodies, the rate of rise of flood water, the duration of floods, the local topography and constrictions to drainage.

The different types of flood environments in Bangladesh include:

- Overbank spill from the major rivers.
- Active floodplains (charlands) in main river channels
- Overbank spill from secondary or minor rivers
- Major beels
- Haor area
- Flash floods
- Storm surges in coastal areas.

The charlands and the haor area are two of the most challenging flood environments as the hydrologic characteristics create extreme contrasts in living conditions between seasons and physical conditions that may change severely within short periods of time. Households living in these environments are very vulnerable, and the hardship suffered results in over 80 per cent of the people living in charlands and haor areas being extremely poor.

The physical and social features of these environments need to be recognised to ensure that the effectiveness of interventions designed to improve the livelihood security of the inhabitants. The location of the main riverine charlands and the haor area are shown in figure 1.1.
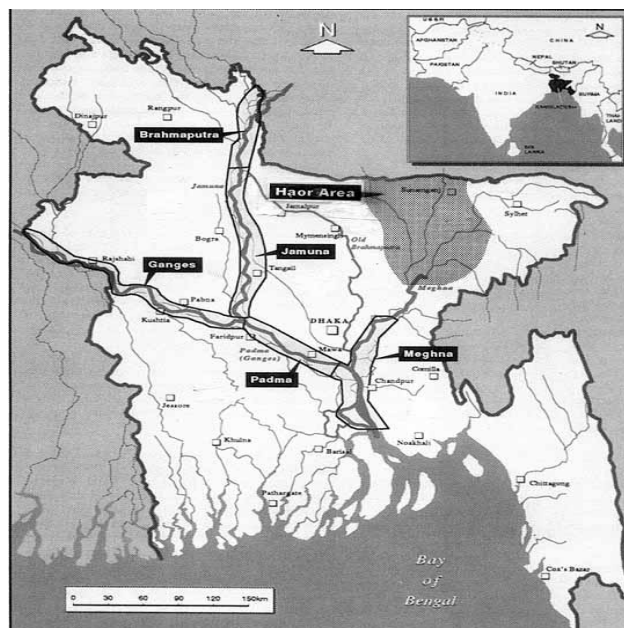

Figure 1.1 Map showing Location of Main Rivers and Haor Area

Brief Overview of the Char Flood Environment

The land within the active flood plain of the main rivers is termed as *chars*. Char is the Bengali term for a "mid-channel island that periodically emerges from the riverbed as a result of accretion". Char is also used to refer to other land in the active flood plain that is subject to erosion and accretion, and the classification system is shown in Figure 1.2. Island chars are defined as land that even in the dry season can only be reached by crossing a main river channel. Attached char is accessible during the dry season without crossing a main river channel and yet is inundated or surrounded by water during the monsoon floods. Additionally, some mainland adjoining the major rivers while not chars in the above sense is also at risk from bank erosion and is just as flood prone as the chars. Setback land is mainland on the riverside of flood protection embankments. It differs from other unprotected mainland because the embankments may provide refuge during floods but may also contain floodwater, thereby raising flood levels. Unprotected mainland has no embankment between it and the main river channels and is inundated during higher than normal floods.
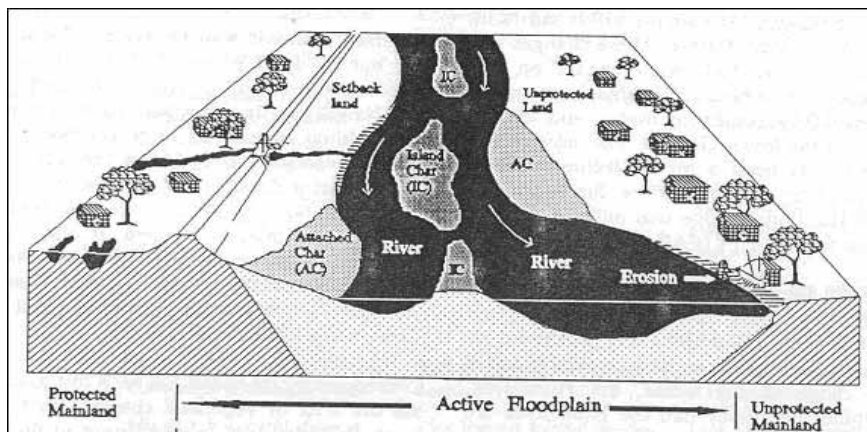
Figure 1.2   Classification of Charland

Chars are a feature of the main rivers of Bangladesh as the main rivers are in a constant state of adjustment and change in response to seasonal variations in their flow and sediment loads. Within the last 200 years or so the river system in Bangladesh has undergone several dramatic changes.

Normal monsoon floods in the charlands tend to last for weeks rather than months, but floods can occur several times during the monsoon season. Erosion is a continuous and related hazard, resulting in villages being less permanent as households are forced to move when erosion accelerates or threatens the structural integrity of the char.

The challenges households face during floods vary in the different river systems and the resources available to a households, but common challenges include:
- Absence of homestead land above flood levels;
- Lack of employment opportunities during the monsoon and post-monsoon periods;

- Threat of erosion; and
- Remoteness and lack of support services.

Flood Proofing

Traditionally, individual households and rural communities have been left to develop their own coping mechanisms to minimise the effects of floods on their livelihoods, but as a result of limited resources and changing hydrologic conditions, many households and communities are not able to protect their livelihoods from being adversely affected by floods.

As flooding is a perennial problem, causing loss of human life and significant damage to livelihoods each year in different parts of the country, the concept of flood proofing was developed to reduce the disruption caused by floods to individuals, families, and communities. Application of flood proofing principles would allow people living in flood-prone environments to improve their social and economic well-being. Flood proofing should be an integral requirement for all development activities in flood-prone areas.

Flood Proofing is defined as *the provision of long-term non-structural and minor structural measures that can be undertaken by individuals, families or communities to mitigate the effects of floods.*
The objectives of flood proofing are to:
- Avoid the loss of human life;
- Reduce the disruption of normal activities during and after floods; and
- Provide people with the security and motivation necessary to make and sustain improvements to their livelihoods to achieve prosperity in an environment that frequently floods.

Flood Proofing Project (FPP) Activities

Based on these propositions the Flood Proofing Project (FPP) has designed and started working in October 1999 and would be ended in September 2004. The project is community based by approach and strategy and includes a wide range of programming components like: Community Mobilisation and Awareness. Household Flood Proofing Measures, Small Scale Agriculture, Social Forestation, Infrastructure and Community Resource Management, and Income and Livelihood Protection. The major activities of the project are as follows:

Community Mobilisation and Training:
The project uses Participatory Learning and Action (PLA) methodology as an initial process of community mobilisation. Application of PLA at the beginning of the project encourages community's participation in analysing and identifying the flood vulnerabilities, needs, and potential resources crucial for mitigating the adverse impacts of flood, and strengthens the communities' capacity for managing the entire project by them. The project facilitates the mobilisation, formation, establishment and continued proactive participatory management of flood preparedness committees in all participating

Flood Proofing Methodology

LGED   PNGO

Union
Parishad   CARE

COMMUNITY
Local Project Society

Planning
Implementation
and Maintenance
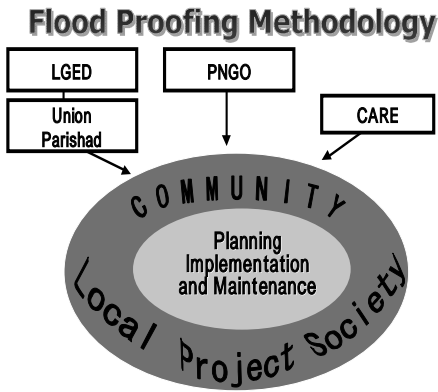
communities. In each community, a Community Committee termed as Local Project Society (LPS) is formed to execute the respective community's decision and maintenance of flood-proofing plans. The committee disseminates early warning and establishes system for evacuation as well as implementation of flood proofing interventions. This essential component of the project ensures continued community ownership and responsibility for flood proofing and preparedness activities. The project arranges extensive training for capacity building of LPS members and links the LPS with other development agencies and local government for sustainability of FPP interventions. The project also forms Mother's club, Adolescents and Children Forum in each community and provide behaviour 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. CVBs closely work with the community women.

Structural Mitigation Measures:
The structural flood-proofing measures include making adjustment to structures to keep water out or reduce water entry, e.g., raising homestead yards of poor families. The raised yards allow the residents spacing for cattle livestock shade, poultry keeping, fodder storing and ensure that possessions remain above flood levels. The other interventions are installation of latrines and tubewells above peak water levels, the construction and renovation of community flood shelters communal places, village road and small culverts, village markets and river ghats, etc. Many of these interventions have significantly reduced the additional burden of women during the flood season.

Small-scale Agriculture, Social Forestation and Erosion Control Measures:
The project promotes small-scale agriculture and improved natural resources in the communities. These include homestead and rooftop vegetable gardens in the raised or protected homesteads, tree plantation, social forestry and livestock rearing. FPP awards and assists communities in planting trees and establishing nurseries in order to mitigate erosion and supplement income within communities.

Income and Livelihood Protection:
Disruption of the local economy during and after floods manifests shortages in employment opportunities, which can severely depress incomes of poor people, who possess little food or money reserves. The loss of income can result in severe malnutrition, and at times homelessness and displacement. They often incur debt, which impacts on their future livelihood security in an adverse manner.
The project identifies and supports alternative Income Generating Activities (IGAs) especially those which can continue throughout the flooding season in order to supplement the income base of poor households. Rural credits for various IGAs are undertaken through partner NGOs as an extension of their own credit programmes.

Results of the Project

The project has significantly changed the livelihood of 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 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 seek their solutions. The committees forged links to other organisations, which strengthened their entity in the community. They talked about both the tangible and intangible benefits of the project such as the social status of households with raised plinth levels has increased in some locations. In Beparipara, for example, people from the mainland now express interest in marrying with people living on char lands. Households with raised homesteads have extended their social capital by extending shelter and basic resources (such as water and cooking facilities) to their neighbours from non-raised households during flood periods while many of the non-raised households constitute the better class. In Bhogoler Kuthi, residents of raised households have been invited to participate in village courts, or shalish. Improvements in infrastructure, particularly roads, have improved villagers' access to information, transportation, and employment.

To express the changes measurably some quantitative references are drawn from Impact Assessment Surveys conducted in the last 2 years. An annual post-flood survey (follow-up survey by nature) of the project documented higher benefits among the poor households (direct participant households). Households with raised plinths experienced a dramatic decrease in assets loss compared to the baseline situation, the survey estimates that the loss of asset during flood time declined by 75 per cent since their household plinth level was raised which resulted in a savings of Tk. 5,000 (US$91) or more per year. The other community structures like flood shelters, schools, markets, etc. offers secure storage facility to the non- raised house holds for their assets. Nearly 90% households of both raised and non-raised category had their access to safe drinking water and 80% households could take usual diet together with enough vegetables.

The Post Flood Survey of the FPP project also assessed the knowledge level of the communities which participated in the project's Flood Preparedness and Management orientation courses. It showed that knowledge on precautions, preparedness and measure usually taken before, during and after the flood to minimise risks have improved significantly. Findings of the survey showed that around 14 per cent of respondents were still unaware of the above-mentioned knowledge issues while 86 per cent respondents were found satisfactorily knowledgeable. Regarding different measures of precaution and preparedness the response was as follows-storing food during flood (70.8 per cent), saving or storing fuel (50.3 per cent), strengthening of the house structure (45.9 per cent), taking erosion protective measures for homestead (39 per cent), finding out safe place for shelter (28 per cent), collecting temporary house construction materials like bamboo, fence, polythene (21.3 per cent), storing livestock fodder (60.5 per cent), storing assets in safe place (75 per cent) and disseminating flood information and shelter place management (86 per cent) (multiple response).

People's life-styles were also changed. In the baseline survey it was found that flood and flood related problems were the major cause of temporary migration to this char land people. But after the project intervention their migration pattern has been changed significantly. Majority of the respondents (57.6 per cent) reported that none of their household members migrated anywhere during the last 2 months and those who migrated the reasons are as follows: migrated because of economic reason (23.1 per cent), flood/erosion (0.6 per cent), cyclone/tornado (0.3 per cent) and drought/crop damage (0.1 per cent). And the most important benefit they mentioned was now they were out of trauma.

The sustainability aspect becomes visible in a project life. The institutionalisation mechanism is taking a right shift. LPS members feel that their social status in the communities increased significantly – they received more respect and find that others sought them out for technical support or advice on a variety of issues. The LPS members were often invited to work as mediators and to represent the society at local events, such as marriage and religious ceremonies. When asked about the intent of LPS members to participate in the Union Parishad (UP, the local-level administration) election, from the village of Beparipara, five or six members plan to run for the position of UP member and one LPS member will campaign for UP chair. In Darar Par, the LPS president plans to compete for the position of UP member.

The most notable impacts as cited by the community people was after the implementation of flood proofing interventions, different service providers were intervening into the communities. The reasons they mention were: their habitat became secure, resource base was increasing, over economic portfolio of the community was improved, people got the knowledge and motivational power etc. and the service providers counted these changes feasible for investment.

The LPS are becoming the locus of many small economic activities such as evacuation boat management (non-commercial use during flood season and commercial use during normal periods), tree plantation activity management, and small nursery management and in every case they get a certain percentage which is earmarked for implementation of the Village Plan. The partner NGOs have started channelling their Non-FPP services through many of the LPS committees. Many of them took proactive roles for establishing linkage with other NGOs' and government service facilities. They become able to create an image of credibility of their own and places them in the middle of many service delivery systems. Many LPS have developed their village specific sustainability plan where they have identified their future vulnerabilities, how they could strengthen the revenue generation sources, how they could negotiate other agencies' resources, continue the participatory decision-making process and minimise the effects of flooding at community level, etc. Some of these plans are incorporated in the Union Parishads' development plans and by other development agencies.

Gender and women's 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 mothers' club members and community-based volunteers (CBVs) have emerged as change agents within the community. Some of them are appointed as group leaders and/or village level facilitators for other NGO service deliveries. Assessments conducted in the post-implementation period found that the mothers' club members and CBVs had successfully performed their intended jobs. They, along with the LPS members, disseminated the early warning of floods, suggested people to taking preparation to cope with the flood with less risk and fewer losses. They also helped the mothers for preparing home-made saline, arranging safe drinking water, taking preventive measures for flood related diseases and establishing improved vegetable garden. Many of them were found successful in attaining the objective of forming mother clubs as other organisations and local communities recognised them. Newly intervened NGOs or partner NGOs who took new activities demanded the involvement of mothers' club members.

Livelihoods are an important area in strengthening local people's capacity to cope with disasters. Direct and indirect support for strengthening people's resources to increase their choices and opportunities for better livelihood options is an important factor and all the project interventions are highly correlated.

Major Challenges

- The Flood Proofing communities are isolated from public delivery services and mobilisation takes time.
- Community-based disaster management needs effective planning and that only can be ensured through true community participation and awareness build-up;
- CBO (LPS) and other participating agents instrumental with clear vision, management capacity, adequate knowledge, information and true facilitation are fundamental for the success of CBDM;
- Legal status of CBOs and linking with other development initiatives;
- Capacity-building of community (esp. women) and ensuring alternative income option during the flood season;
- Empowerment and effective interconnectedness with outside;
- Integration of gender needs and women's empowerment in community-based sustainable disaster management;
- Ensuring community contribution in project and provision of resource generation at local level;
- Involving the local government in community-based sustainable disaster management;
- It is recognised that the local government is the best positioned to provide leadership
- Integrating disaster management with long-term development;
- Implementation and management of community driven sustainability plan.
- Conventional view about the community that they prefer relief supports more;

- Local coping mechanisms are ignored; While planning for enhancing capacity of community, outside organisation must learn the existing coping mechanisms and how to improve them.
- Effectively engage the women in planning and preparedness activities.
- Lack of understanding, knowledge and skill of planners and implementers in CBDM.

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Mr. Khan works as Project Team Leader of CIDA funded Climate Change Adaptation and Disaster Mitigation project in Vietnam under the Canadian Centre for International Studies and Cooperation. Mr. Khan has approximately 14 years of experience in community development and disaster mitigation in South and Southeast Asia specialising in, amongst many things, disaster preparedness and mitigation, and risk mapping as well as Community Based Disaster Management (CBDM). Mr. Khan holds a MBM, MSc. in Development Studies.

[1]/ NDMP framework document and action plan upto 2005

Capacity Building for Adaptation to Climate Change (CACC) Project

Introduction

Situated in the tropical monsoon zone close to the typhoon centre of the Western Pacific, Viet Nam is one of the most disaster-prone countries in the world. Currently, 70 per cent of the 73 million people in Viet Nam live in areas that are subject to floods and storms. For many regions of the country repeated disasters severely hamper efforts for economic development and cause a continuing cycle of poverty. This paper briefly discusses the disaster context of Viet Nam, disaster vulnerabilities, issues of community participation in disaster management and a case study on community-based disaster mitigation project.

Disaster context in Vietnam:
There are five principal disaster hazard zones in Vietnam in the three distinct regions of the country. Each zone has different topography, population density and principal types of disasters to contend with:

Region of Viet Nam	Disaster Zone	Principal Disaster Hazards
North	Northern Uplands	Flash floods, landslides, earthquakes
North	Red River Delta	Monsoon river floods, typhoon storms, coastal storm surge
Centre	Central Provinces	Typhoon storms, flash floods, drought, salt water intrusion
Centre	Central Highlands	Flash floods, landslides
South	Mekong River Delta	River flooding from upstream, typhoon storms, high tides, storm surge and salt water intrusion along the coast

Source: NDMP pilot project documents for Central Vietnam (November 2003)

In Viet Nam, storms, drought, and floods are the most destructive disasters because they occur over large areas and cause extensive human and economic loss. In 1996, severe floods occurred in all three regions of the country, causing heavy loss of lives and property. The total economic loss was estimated at more than US$ 720 million. In late 1997 and early 1998, severe drought occurred across most of the Central Provinces.[1]/

Most seriously, five tropical storms consecutively hit the Central Provinces, causing heavy rainfall and severe flooding. In July 1999 historically large flash flooding occurred in Binh Thuan Province. In November and December 1999 rains and floods of high intensity caused some of the heaviest floods ever in the history of the Central Provinces, causing deep inundation for a long period and seriously damaging any areas from Quang Binh Province.

The flash flood in 2003 in three central provinces caused 40 deaths, more than $80 million in economic loss and 300 homes were destroyed.[2]

Disaster Vulnerabilities

The rapid urbanisation and industrialisation in Viet Nam – resulting from the country's modest but highly successful social, economic and technology reforms – are putting pressure on the country's already strained natural resource base. The recent disaster occurrences have demonstrated that changes in rainfall intensity and sea level, combined with environmental degradation such as deforestation of upland areas, and exploitation of mangrove areas and shorelines for aqua-culture, have resulted in more rapid onset and longer periods of flooding. Other climatic and environmental changes such as drought and saline intrusion have also led to poor soil conditions and scarcity of water resources during the year. Communities in disaster-prone regions of the country, have had to deal with cycles of extreme climate events, which severely hamper traditional coping mechanisms. According to the United Nations Framework Convention on Climate Change (UNFCCC) technical research on Viet Nam, the long-term expected impacts of climate change include:

- Flood-related disasters will increase causing harm to life and high economic losses;
- Large areas of agricultural land (1.5 – 2 million ha) will be regularly flooded and/or salinated and more than 100 000 ha of farmland will be lost;
- Mangrove forests will be lost or flooded, salt water levels in coastal lagoons and rivers will be changed and sea ecosystems will be altered;
- Large parts of coastal cities will be submerged;
- Loss in agricultural productivity from drought or intense flooding will be greater;
- Water supply for consumption will potentially be reduced.
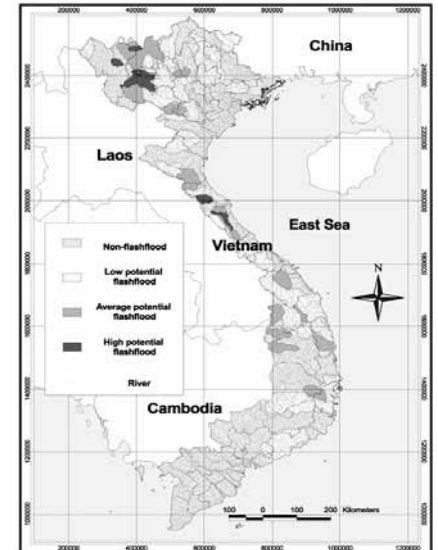
Government Strategy for Disaster Mitigation

The Second National Strategy for Disaster Mitigation in Viet Nam[3] addresses all types of disasters and focus more on non-structural issues. Some areas the second strategy intended to address include:

- Improve community awareness and local participation to ensure disaster safe communities
- More attention to disaster preparedness as well as medium-term rehabilitation and longer-term recovery
- Recognise link between poverty and natural disasters
- Integrate environmental protection into disaster mitigation and management planning
- Address the increased severity, frequency and complexity of natural disasters including cycles of flooding and drought.

Vietnam Case Study

Community Participation in Disaster Management

In Viet Nam, the government and donor-sponsored disaster mitigation activities were mostly need based, focusing on immediate solution. Despite government focus in second national Disaster Mitigation (DM) strategy, long-term vision and community participation in the planning process were often ignored or undermined at the implementation level. Consequently, the issue of sustainability of the disaster mitigation measures became prime challenge for the disaster managers in Viet Nam. After 1999 catastrophic flood in central Viet Nam, some international NGOs introduced community based approach in implementing disaster mitigation Project.[4] The lesson learned of these projects drew the attention of the government and non government organisations in Viet Nam on the effectiveness of community participation. It was realised that the effective and successful disaster reduction initiatives are often attributed to the spontaneous participation of the communities and involvement of the people in Viet Nam. However, in most cases, it can be observed that the community initiatives produce results so long as there is external support from the NGOs and international organisations. To address the sustainability issues in CBDM approach, some successful initiatives were taken by the some INGOs at the project implementation level in different disaster regions. However, there is no consensus on a common approach for the sustainability of CBDM in Viet Nam.

Capacity Building for Adaptation to Climate Change (CACC) project

The flood, which hit the Central Provinces of Vietnam in 1999, showed clearly how much the combined factors[5] have intensified the damaging affects of natural disasters with long term impacts on people and the environment. This flood caused over 700 deaths and $250 million in damage across seven provinces. In many cases it is the poorest who live in the highest risk areas in shelters that provide little protection for their personal safety and assets. The vulnerability to natural disasters has been identified as one of the main factors that keep people in the cycle of poverty.[6] The development of strategies for mitigating risk of losses from natural disasters is critical in order for the country to remain on the course of reducing poverty on a sustainable level.

In order to address these issues the Canadian Centre for International Studies and co-operation(CECI) has initiated a project "Capacity Building for Adaptation to Climate Change (CACC)" in the central province of Thua Thien Hue, Viet Nam under the Canada Climate Change Development Fund (CCCDF) of the Canadian International Development Agency (CIDA). The purpose of the project is to *"Strengthen capacity to plan and implement community-based anticipatory adaptation strategies through disaster preparedness and integration of risk reduction and mitigation into local development planning"*. The expected results are:

- Increased capacity for village groups and commune officials to assess factors of vulnerability to natural disasters and develop commune and village level adaptation strategies ('safer village' plans)
- Increased capacity of district officials to support adaptation measures

[4] after 1999 flood CECI, ADPC, etc.. introduced CBDM activities through training and awareness raising activities.

[5] Intense rainfall and raising sea level, combined with environmental degradation such as deforestation of upland areas, and exploitation of mangrove areas and shorelines for aqua-culture

[6] Government - Donor - NGO Poverty Working Group, *Vietnam: Attacking Poverty*. Hanoi: The World Bank, 1999.

- Improved strategies for relocating or addressing needs of households in areas of highest physical vulnerability
- Increased awareness among provincial and national policy-makers and development stakeholders of the impacts of climate change and viable options for community-based adaptation.

Theme of the Project
Promote ''Safer Villages'' model that includes;
- Capacity development of stakeholders on Community-Based Disaster Management (CBDM)
- Anticipatory adaptation strategy to address longer term impact of climate change and water related disasters

Major Interventions of CACC
(1) Capacity Development for safer village;
  - CBDM training for safer village planning
  - Capacity Development on best practice for disaster-resistant housing and public building
  - Strengthening outreach service on agricultural technique for mitigating impact of climate change

(2) Application of Community Adaptation fund;
  - Co-finance sub-projects identified through the ''safer village'' plan
  - Study of relocation and alternatives for highly vulnerable populations
  - Support relocation activities based on study finding

(3) Enabling environment for safer village program;
  - Awareness raising among the policy maker and implementers on climate change and disaster mitigation issues
  - Information sharing and policy feedback

Main Components of CACC

Capacity Building

Awareness Raising

Safer Village Plan

Sub Projects

Policy Feedback
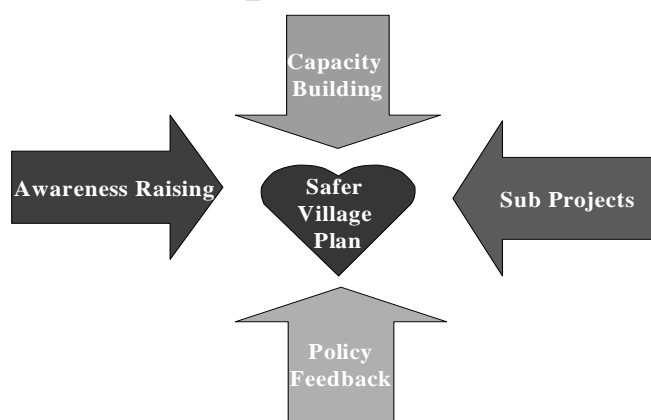
Project Achievement to Date

- Targeted communities[7/] received training on CBDM and are able to conduct community based risk assessment, identify the areas of vulnerabilities in their community, make adaptation plan for disaster mitigation. To sustain the CBDM approach a network of local trainers was established in the project areas who received Training of Trainers (TOT) on CBDM and are able to conduct CBDM. Almost half of the CBDM training participants were women. They actively participated in disaster preparedness and safer village planning processes. All villages in the project areas developed safer village plans along with appropriate subproject proposal to support their community adaptation strategies.

- Guidelines for flood and typhoon-resistant construction practice were developed and provided training to the local engineers, technical supervisors and builders on safe construction practice. Established a network of local level agriculture and aquaculture extension workers and provide them training on appropriate agri- and aquaculture techniques for disaster preparedness/mitigation. They developed safer production plans to support community adaptation strategies. An information kit to farmers was distributed to illustrate adaptation to climate change and disaster preparedness. Implementing 33 sub-projects of various kind (rescue equipment supply, rehabilitation or construction of roads, culverts, water channel, multipurpose disaster shelters, water supply and sanitation facilities, etc.) under safer village plan and safer production plan through project co financing.

Project Experience

- CBDM approach of CACC was the first experience for the communities and local officials and they actively participated CBDM process for safer village planning
- There is a strong need/demand for integrated planning with community participation for successful CBDM
- Capacity-building is the key for an effective CBDM approach
- CBDM helps to reduce project costs and donor dependency and sustainability in DM practice
- There is no clear definition of Communities and Community-Based Organisations (CBO) in Viet Nam. However, the mass organisations (CBO/NGOs) which are part of the vertical system of the National Farmers Union, Women Unions, Youth Union are well organised and active in local level development
- Disaster mitigation activities should focus on both structural non-structural measures

Concerns about CDBM Approach in Viet Nam

Though the national and provincial strategies represent progressive steps in addressing, communities' vulnerability to natural disasters, following issues

should still be addressed for comprehensive and effective disaster mitigation planning in Viet Nam:

- Emphasis on both structural non structural measures
- Integration of disaster mitigation into development planning
- Decentralised (bottom-up) planning system
- Decentralised resource allocation
- Widen capacity-building activities beyond government structures
- Integration of adaptation issues into the disaster mitigation strategies
- Government policy and commitment to institutionalise CBDM approach
- Define Community, Community based organisations

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Mr. Sian is a manager of the Disaster Management Unit (DMU) of the PNRC. He has rich experience of working directly with community in different parts of the Philippines and under different disaster scenarios. Under his leadership, PNRC DMU has conducted unique study on integrated community based risk management. He is also deeply involved in establishing international training centre in the Philippines to promote community based training in different parts of Asia and the Pacific.

[1] ICDPP or the Integrated Community Disaster Planning Program supported by the Danish Red Cross since November 1994

Harnessing the Workers' Tool Kit
for a Sustained Community-Based Disaster Management

Introduction

CBDM has been widely recognised by disaster management agencies and practitioners throughout the world as the current best, if not the most viable, approach to reducing the impact of disasters. CBDM that basically puts a premium on communities' participation throughout the process of data gathering, analysis, interventions, monitoring and evaluation has also been regarded as the bottom-up approach.

Through the years, many disaster management practitioners in different countries and contexts have had varying experiences, practices, methodologies and approaches with various degrees of success in reducing negative impact of disasters. CBDM has been applied as a strategy to address poverty as the root cause of disasters, some for effective disaster preparedness and response and among others that had a positive impact on people and communities.

However, the sustainability of CBDM's good practices and impact has been challenged, thus the United Nation Centre for Regional Development (UNCRD) has developed six (6) Guidelines and Tools especially intended for different kinds of disaster management workers that include the Generic Guidelines, Guidelines for Policymakers, National Disaster Managers, Local Disaster Managers, Trainers, and Guidelines for Community Workers.

This paper describes the results of the study and field-testing activities conducted by the Philippine National Red Cross on the usability and suitability of the UNCRD guidelines and Tools for a sustainable CBDM.

Purpose and Methodologies of the Study

While the Philippine National Red Cross believes in the need and importance of the Guidelines and Tools in CBDM, it would like to review and validate their usefulness for different key users in the Philippines. In 2003, PNRC developed its own guideline on "Integrated Community Disaster Planning"[1] as a consolidated experience of the institution in CBDM since 1994, but given the evolving lessons and good practices from others, both locally and abroad, it can compliment other guidelines specifically those of UNCRD.

The overall purpose of the study was to further enhance the Guidelines and Tools that would address practical needs and concerns of communities, disaster workers and managers towards a sustained CBDM. Its primary objective was to review the usability and suitability of the UNCRD's CBDM Guidelines and Tools in three (3) selected communities with trainers and community-based organisations, solicit comments from the central government disaster managers and policymakers of its applicability. From here, formulate an action plan for the local government's capability building and application as one of the key players in a sustained CBDM.

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 organisations, local government units, and national disaster managers and policymakers. 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.

The field-testing activities were participated in by representatives coming from the community-based organisations such as the Barangay Disaster Action Team (BDAT) and Community-Based Disaster Response Organisation (CBDRO), Barangay officials, Barangay health workers, community organisers, particularly from the service providers. The community workshops were primarily conducted in areas such as: Pinagbayanan, Calauag in Quezon province, Sta. Catalina, Minalin, Pampanga, and the municipality of Obando Bulacan that periodically experience typhoons, lahar flows, and flooding, respectively. Consultation was also held with selected members of Provincial and Municipal Disaster Coordinating Councils in Davao.

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 Department of Health (DOH), selected national and local-based non-government organisations and concerned local government units.

Community-Based Disaster Management:
a common practice in the Philippines [2]

The Philippines has been known as one of the most isaster-prone countries in Asia. It lies on the typhoon belt and experiences an average of 19-20 tropical cyclones a year. Major earthquake occurred every six years as fault zones are spread all over the archipelago. The country, comprising of more than 7,000 islands and islets, is likewise prone to floods, tidal waves, and tsunami. In recent years, environmental degradation has been widespread that caused landslides or soil erosion, deforestation, water pollution, forest fires, among others that created significant negative impact on the population and country's landscape. Specifically in Mindanao, southern Philippines, apart from droughts that affect food production, armed conflict has been a big problem that has caused massive displacements of residents.

The periodic occurrences of disasters in the country actually underscores the existence of vulnerable population in places prone to geological and atmospheric hazards. As widely recognised, people's vulnerability to disasters is caused by long-decades of socio-economic and political structures of the country, likewise people's attitudes and values that effect marginalization and inequity. Further, inappropriate development programmes and policies aggravate this vulnerable situation.

[2] NDCC presentation on the "Philippine Disaster Management System"

Based on the experiences and understanding of the various respondents of the study, CBDM practice in the Philippines is a broad and encompassing approach aimed to address poverty and people's vulnerability to disasters towards building capable and self-sustaining communities. In pursuing CBDM, key disaster management actors are guided with some principles such as people-centred development with bias to the poor or the disadvantaged groups/sectors, needs-based, neighbourhood and mutual respect, inclusive thus recognises the importance of multi-stakeholders participation, continuous process of learning, integrated, and with spiritual dimension – faith in God. CBDM practice likewise showed several broad approaches or methodologies such as bottom-up and top-down approach that ensures micro-macro link, family based, one cluster-one vision, participatory capacity and vulnerability analysis, damage needs-capacity assessment, integrated community development planning and with a long list of activities.

CBDM Guidelines and Tools:

an eye opener and means to systematise our work

The UNCRD Guidelines and Tools offer a very good reference in undertaking CBDM and to ensure its sustainability considering its gains in terms of reducing the impact of disaster events.

As a brief review, it considers seven (7) most important factors or critical elements in CBDM;
- Promote and strengthen a culture of coping with crisis and a culture of disaster reduction
- Motivation for the initiation and sustainability of the CBDM-based perceptions and choices that community and supporting agencies make
- Blending and incorporation of people's perception on vulnerability assessment
- Genuine people's participation within capacity building objectives
- Well delivered training inputs in accordance with the objectives of the project and needs of community for training
- Wider stakeholders involvement and participation
- Accumulation of physical, technological and economic assets and integration of these into regular development planning and budgeting.

Given the above-mentioned factors, UNCRD seems to recognise five (5) key or significant actors as manifested in specific users' Tools, apart from the generic Guidelines that would apply to all, these are: Policy Makers, National Disaster Managers, Local Disaster Managers, Trainers and Community workers. However, their roles and functions have to be thoroughly discussed in the Guidelines and maybe other actors can also be cited with their potential contributions to CBDM sustainability.

Consolidating the results of the series of workshops, interviews and surveys, it shows that the Guidelines and Tools are well appreciated by the respondents, in terms of content and presentation. They are, however, one in saying that further simplification and improvements can be made to make each of the user-specific Tools more useful and practical to their respective users.

Further, the various factors and points mentioned in the Guidelines and Tools are "very useful" to further advance CBDM practices in the Philippines. It would provide the disaster managers and other players with reference in terms of planning, implementation, monitoring and evaluation of CBDM undertakings. However, it needs more elaboration specifically on the "how" in more simplified terms and statements to make it more user-friendly.

As related by the different users, the Guidelines and Tools practically include the factors and principles that are actually being carried out by the various stakeholders in their CBDM work. This is to say that the Guidelines and Tools do not simply have the potential for applicability in the Philippines, but are already generally operational in the country.

On a broad-spectrum, the Guidelines and Tools are acceptable, adoptable, facilitative, and enabling to users. Its further enhancement, aimed to fit the more specific concerns at various levels based recommendations previously mentioned, would further promote its application and use all over the country as the bible for CBDM.

However, "good governance" can be considered as one of the important factors in CBDM though slightly explained regarding integrated planning and budgeting in the 7th factors under the generic Guidelines. This is in due consideration of the role of the Local Government Units (LGUs) specifically at the level of Municipal Government as autonomous and provided with enough powers under the *Local Government Code of 1991.*[3]

[3] *Local Government Code of 1991,* known as *Republic Act 7160.*

Specific Tools

Generic Guidelines: This can be the overarching framework of the different specific tools that needs more elaboration in terms of its importance and where gains are to be expected of every user. The generic guideline can serve as the basic reference materials of all the tools, therefore, basic terms, definitions, nature of key actors, roles, functions likewise limitations must be elaborated. Meanings, basic framework, methodologies including the identified sustainability principles presented in other Tools should be placed in the generic guideline to avoid repetitions in the specific Tools. Further, the premise that communities are familiar with every hazard has to be corrected. In the case of the Mt. Pinatubo eruption in 1991, no one from the local population knew that Mt. Pinatubo is a volcano that erupted 500 years ago; only the scientific community has the history of such information. Thus, CBDM must not be regarded only as a bottom-up approach but also, must be combined with a top-down approach such as a national policy for example to institutionalise CBDM at all levels that actually emanates from the top.

Guidelines for Policymakers: Policymakers acknowledged the five (5) recommended tools that include promotion and strengthening of a culture of coping crisis and a culture of disaster reduction, blending and incorporation of people's perception on vulnerability assessment, genuine people's participation, wider stakeholders' involvement, promotion of integration of disaster reduction into regular development planning, to be essential in ensuring the sustainability of CBDM, and are actually part of the current policy-making

function for CBDM.

Policy-wise, CBDM is supported by many major policies of government. Presidential Decree 1566 prescribed for national programme community disaster preparedness. On the other hand, the Local Government Code (LGC) provides for LGU relations with People's and Non-Government Organisations in the pursuit of autonomy and in the delivery of certain basic services. The LGC further reaffirms of its imperative in community-based approach for delivering basic services.

However, as previously mentioned, there must be a clear definition as to who are the policymakers so as to suit the recommended Tools vis-à-vis their nature and functions. The National Disaster Coordinating Council for example also passed policies but more related to operational policies, the local municipal and provincial councils, the congress and others that, one way or the other, formulate and passed policies. In addition, as a guideline, it does not have enough content and only serves as an eye-opener for policymakers.

Guidelines for National Disaster Managers: The five (5) Tools, such as developing public awareness, integration of local perceptions on vulnerability assessment, setting guidelines for genuine people's participation, ensuring wider stakeholders participation and integration of disaster reduction activities in the regular planning and budgeting processes were considered as vital factors towards the sustainability of CBDM, and are part of the current practice in their CBDM work as national managers.

Currently, a number of central government agencies have existing programmes that support the CBDM approach. The Social Welfare Development Department implements the Family-Based Disaster Preparedness Programme; while, the Local Government Units have Disaster Coordinating Councils (DCC) serving as an avenue for CBDM. The community-level DCCs are the Barangay Disaster Coordinating Councils (BDCCs) headed by the Barangay Chairman.

The Guidelines for National Disaster Managers, as a whole, are acceptable in terms of adoptability, and usability. The respondents, however, feel that the material could have provided more information and discussions to make it more useful to the users. These include, mechanism in the enforcement of programmes and plans on CBDM based on their mandate and limitations, also the support roles of national agencies to local government units needs discussion.

Tools for Local Disaster Managers: The six (6) specific Tools were regarded as essential factors in the sustainability of CBDM, however, the material needs to present more on the methodologies on how these factors can best guide the local disaster managers.

One of the common concerns of most local disaster managers is the lack of funding to support CBDM programmes. Though it was specifically recommended that central government should provide such support, local disaster managers through the LGUs must develop resource mobilisation

programme which have to be explained in the Tools section, such as available opportunities and how to carry out such activities. Likewise, importance of establishing updated baseline information has to be thoroughly explained since most if not all LGUs are not inclined to venture on non- visible projects. This is actually related to how to prioritise projects given the limited resources such as micro- and macro-mitigation projects. Furthermore, participatory governance can be stressed in the Tools towards building a more appropriate partnership mechanism among the local stakeholders on CBDM.

As repeatedly mentioned, the Tools should also provide a clear definition of the roles of local disaster managers as well as the main user. In the Philippines, the current disaster management structure has three levels where disasters are managed at the community level;

- The Barangay Council, which is the local authority at the community or village level;
- The mandated organisers in the area, which include groups or positions purposely established by law or by the Barangay Council to respond to specific issues like disaster, in the case of Barangay Disaster Action Team (BDAT); and health, in the case of the Barangay Health Workers, etc.
- The organised groups in the community, basically referring to community-based NGOs who take upon themselves to help in times of disaster or even in the entire DM efforts such us in the case of CBDROs which were purposely organised for CBDM.

Trainers' Tools: The Trainers' Tools are generally acceptable and actually form part of the current CBDM practices of trainers surveyed. The respondents view that the technical substance of the material is appropriate for trainers, but there is need to simplify further its content for training community volunteers. Trainers believe that the Tools, combined with existing materials/tools from PNRC, OCD, and UN, can potentially set the stage for the crafting of a standard National Training Manual for CBDM.

Specifically, the Tools should emphasise the stakeholders roles and partnerships, as well as identify who are the particular groups to be included in the five key players/stakeholder groups identified by the Tools, i.e., the community workers, local disaster managers, national managers, trainers and policymakers. Also, it can elaborate on the role of trainers as promoters, enablers, and educators of communities and other disaster management actors.

Trainers believe that the best way to train people about CBDM, and the best way to promote the approach, is by teaching it to the children, and students as part of the regular school curriculum, which can be an agenda for national or local legislation.

As part of training preparation, it is recommended that steps to conduct training needs analysis among target audiences be specific in terms of areas of inquiry as basis for lesson planning. Though the Tools discussed the importance of a reflection session on lessons learnt and undertaking assessment on the training impact, it is more helpful if it is clearly elaborated or expounded in the Tools.

Philippines Case Study

Guidelines for Community Workers: Based on the experience of communities, the ten Tools identified were indeed the factors that could make CBDM a viable approach in managing disasters. The communities have qualified these Tools as "necessary to very necessary" in sustaining CBDM, depending on community needs and situation.

The Tools are acceptable and are generally part of the current CBDM practice among community workers. Most of the activities indicated in the framework are part of the Participatory Capacity and Vulnerability Assessment activities that communities have been employing in their own CBDM efforts.

However, two of the ten identified Tools that should be improved and which the Guidelines should consider giving emphasis to, to better enable the users and the communities in general:
Based on the Guidelines, Tool number 1 which is the identification, assessment and mobilisation of the various stakeholders' needs requires deeper discussion since some communities involve only co-operating stakeholders, while others only involve those whose functions are needed in the particular activity. The other one is tool number 7, Incorporation of CBDM in the Local Development Plan and Budget, which is not happening at all, since the focuses of local development plans in terms of disaster management are emergencies and infrastructures. There is also a need to inform Barangay Councils of the CBDM concept.

Related to identification of stakeholders, community workers must be clearly defined which basically describes the parallel role of local disaster managers. The actual practice at the community has to be considered given the role of the Barangay Council, which is the local authority at the community or village level, the mandated organisers in the area, which include groups or positions purposely established by law or by the Barangay Council to respond to specific issues like disaster, in the case of BDAT; and health, in the case of the Barangay Health Workers, etc. and the organised groups in the community, basically referring to community-based NGOs who take it upon themselves to help in times of disaster or even in the entire DM efforts such as in the case of CBDROs, which were purposely organised for CBDM.

The communities also share the belief that a sustained CBDM can ultimately provide the avenue towards poverty alleviation, and that it is by addressing poverty that the vulnerabilities of people are overcome. While there is a strong view on the critical role of the community itself in CBDM, there is also clear recognition that the government, particularly, the local government units and non-government organisations also play crucial roles.

Recommendations to Improve the CBDM Guidelines and Tools
Overall Recommendations:
- Include explanation on the rationale, objectives and expected use of the Guidelines and Tools
- Provide menu of methodologies or the "how to" on specific recommended Tools, in particular how to integrate disaster management into the development planning process

- Include good governance as one of the major factors for CBDM sustainability
- Formulation of more precise indicators in each factor for monitoring purposes
- The generic Guidelines can cite specific actor that is potential to lead CBDM at various levels, like the NDCC at national level

In terms of presentation:
- Be consistent in layout, definition of terms, etc., the generic Guidelines as overarching basis of the specific user's tool.
- Simplify presentation, concise and minimise technical terms, provide glossary attached in the generic Guidelines.
- Use local perspective and add more cases specific to user.
- Each tool can be packaged in accordance to the role of specific user.
- Avoid redundancy; graphics can be used to highlight points.
- Integrate information, education and communication local experience proven to be effective. Provide more graphics, pictures and other visuals.
- Translation of the community workers tool, trainers and local disaster managers into local dialect.

For Local Government Units:
- Work for the creation of disaster management office through local legislation.
- Conduct series of education and training activities for the chief executives, members of the local legislative councils and community workers to better appreciate CBDM.
- Conduct period capacity vulnerability assessment or profiling as basis for annual development planning.
- Develop coordination mechanism to maximise local resources.
- Develop advocacy programs that would support local disaster management related projects beyond the LGU capacities.
- Improve local governance through holistic development approach that involved other local stakeholders from planning, implementation, monitoring and evaluation.

Immediate Plans
- The polished CBDM Guidelines and Tools will be recommended for adoption at the National Disaster Coordinating Council (NDCC) level as champion of CBDM
- Work for CBDM institutionalisation through drafting a bill for legislation that would put a premium on CBDM as viable approach in disaster reduction.
- Give priority in the agenda of future meetings at NDCC, National Anti-Poverty Commission and PNRC, as potential network for the Tools' promotion at various levels.

PANEL DISCUSSION:
What is Community Legacy?

One of the activities during the International Symposium is the panel discussion that would involve experts on disaster management and community initiatives from around the world. Given the statements expressed in the **Yokohama Strategy and Plan of Action for a Safer World** and UNCRD's activities in disaster management, the notion of grass-roots efforts, focusing especially on "community", has become a more common concept in disaster management. Community has become a widely used and accepted word in the context of local disaster management and planning on a global scale. Nonetheless questions often raised are, "What does community mean in the context of disaster management? What does it mean to emphasise community in disaster management?" "How can community capacity be passed down from generation to generation, becoming more innovative over time?"

In theory involving community to partake in disaster management is an increasingly popular notion. Yet, in reality, this is easier said than done. It is even more difficult to make it more sustainable and a lasting one as far as the "legacy" is concerned.

At this panel discussion, international experts are encouraged to review further the notion of "community" shedding light on this concept from various perspectives. This discussion is aimed to instigate meaningful and deep discussions from the experts, who, from their own expertise, can offer innovative and powerful ideas.

Overview of Panel Discussion

Panelist Paper:
Xavier Castellanos, IFRC, Trinidad and Tobago
Helen MacGregor, DiMP, South Africa
Zenaida Delica, CDP, Philippines

The afternoon session of the International Symposium was composed of panel discussions that were based on the detailed presentations made by the invited panellists. This year, panellists from three different continents were invited to discuss community-based disaster management (CBDM) as manifested in the traditional "legacies" inherent in local communities and their disaster management activities. Panellists from Asia, Africa, and Latin America presented their knowledge and experiences of CBDM within the context of their country and profession. Issues such as community bonds, community challenges, policy gaps, and community management in disaster management were raised and discussed. The discussion was co-chaired by Professor Ian Davis and Mr. Saidur Rahman. Mr. Rahman directed the communication flow of the discussion among the participants and the audience, while Professor Davis concluded the session with an in-depth analysis of the dialogues that had taken place. *(Professor Davis' concluding analysis is inserted separately in the Proceedings.)* In addition to the panellists' presentations, local commentators added to these presentations by sharing their views and experiences from the Japanese perspective. They added to the overall dialogue on CBDM by sharing specific examples that have been learned and acquired in Japan, which is a particularly disaster-prone country.

Muhammad Saidur Rahman
Founder/Director
Bangladesh Disaster Preparedness Centre (BDPC)
Bangladesh

Mr. Rahman has conducted extensive disaster relief and rehabilitation operations for over twenty years. His previous professional experience includes working for the Red Cross and Oxfam. He has held various management positions within these organisations such as the first Director of Cyclone Preparedness Programme and Deputy Secretary General of Bangladesh Red Crescent Society, Deputy Country Representative and Country Representative for Oxfam in Somalia as well as Bangladesh. Mr. Rahman was recently awarded the Certificate of Distinction for the United Nations Sasakawa Award.

Co-Chair:	Ian Davis, Cranfield Univ., United Kingdom
	Saidur Rahman, BDPC, Bangladesh
Commentator:	Tsuneo Katayama, NIED, Japan
	Kazuhisa Shibuya, Cabinet Office, Japan
Panelist :	Xavier Castellanos, IFRC, Trinidad and Tobago
	Helen MacGregor, DiMP, South Africa
	Zenaida Delica, CDP, Philippines

Panel Discussion I

Presenter Mr. Castellanos explained the traditional concept of community participation and co-operation that has been nurtured in Latin America, called, "*Minga*". He described how this concept has been applied in various contexts including those for disaster management activities. Having provided a clear description of this tradition, he also described the work of IFRC and how the organisation is trying to promote such a concept in its effort to empower and integrate people. Finally, he pointed out how rapid modernisation is creating a distance between people and also separating people from government. Mr. Castellanos spoke of ways to close this gap through the creation of economic and social security and mitigating people's vulnerability through empowerment.

Professor Katayama commented that it was important for any community to know what the definition of "community" is when trying to implement actions at the community level. Therefore, one of the more fundamental needs in promoting community-based activity, whether it be through the concept of "*Minga*" or other means, people must ask who is included in the definition of "community" given the context and situation. He explained his observation of how recent activities that are supposedly "community-based" tend to be built upon a vague definition of the word "community".

Mr. Shibuya commented that the concept of "*Minga*" also once existed in Japan, and that recently, the concept is becoming popular among citizens, once again, as a result of their heightened perception of natural disaster risk. He added that for a successful "*Minga*", people need to have common goals and to hold a common understanding of an issue. While previously, these goals and understanding were passed down naturally from generation to generation, this is no longer the case. Nowadays, people must make the effort to communicate issues and goals, which was not necessary in the past.

General Discussion: The ensuing discussion focused on the gap often seen in many countries between the government and communities. Some people questioned how and what strategies would be effective and should be deployed so that governments around the world could take a more active role in CBDM.

Panel Discussion II

Presenter Ms. MacGregor described the South African experience of disaster management and some of the challenges unique to the South African context and how such risks can also be turned into opportunities. She further explained the current problems that were being addressed in disaster management and the recent changes at the policy level that were occurring in promoting CBDM. She further claimed that not all "legacies" were good. On the contrary, she described some "legacies" in disaster management that should be terminated because they inflicted more harm than good.

Professor Katayama commented on the possible roles that CBDM could play for the most vulnerable people as in the case of South Africa. He explained further that given the situation in South Africa, where so many other serious issues and challenges exist, disaster management might not be a high priority. Professor Katayama questioned how disaster management could help those facing destitution and in dire need. Furthermore, he suggested that in implementing CBDM, it would be better if less jargon and fewer acronyms were used, for the sake of clarity. He felt that terms such as "CBDM", although clearly understood among experts and specialists might not be intuitively understood by lay people who are the very subject of "CBDM" efforts. Therefore, he suggested using simpler terms when working with local communities.

Tsuneo Katayama
Director General
National Research Institute for
Earth Science and Disaster
Prevention (NIED)
Japan

Mr. Katayama holds numerous experiences in deploying research projects in the field of urban earthquake management and initiatives in "Lifeline" earthquake engineering. He has led various studies and projects critically viewing the effects and needs in disaster management from a wide perspective. Mr. Katayama has also held various teaching positions from the University of Tokyo, Chuo University, to New South Wales University. He is also currently a professor emeritus at the University of Tokyo.

Overview of Panel Discussion

Mr. Shibuya commented that turning risks into opportunities was one of the main issues in disaster management. He anticipated that it would also be one of the major topics in the World Conference of 2005. Other than the South African experience, he described how similar actions were being taken in Japan. For example, he described how some Japanese communities situated near active volcanoes have learned to use hot springs created by volcanic eruptions as economic assets to boost the domestic tourism industry.

General Discussion: The discussion focused on the issue of turning disaster risks into opportunities. Some agreed that risks can be opportunities but the general consensus is not so since many people do not want to consider risks as anything other than "dangerous". However, discussions further shaped consensus that a disaster risk can be an opportunity to people and ways of making risks into opportunity should be further studied. Others raised a topic of what can be done to work with communities that are not always willing to co-operate with government and NGOs.

Panel Discussion III

Presenter Ms. Delica described her experiences in community-based disaster risk management in the Asian region. She explained the reasons why many of the Asian countries are vulnerable to natural hazards and experience natural disasters. Ms. Delica emphasised that communities must not only participate in community risk management activities but also actively manage these activities. Communities must be organized and mobilized to act efficiently for community risk management. Ms. Delica emphasized the importance of not only the bottom-up approach but also the top-down approach in disaster management if it were to be successful. She claimed that without support at both ends of the spectrum, disaster management activities cannot be comprehensive unless all people are accountable for their actions.

Professor Katayama commented that what is required for CBDM is a strong political will that can drive the government to make CBDM a reality, to fill the gap between communities and governments. While the bottom-up approach, the fundamental idea behind CBDM, is important, so is the top-down method. Without action from the top, CBDM will not be complete, given one caveat. Professor Katayama claimed that the top-down approach must be directed and managed by decision-makers who are genuinely concerned about achieving a disaster-free society and sincerely believe that such society is not a luxury but a realizable norm.

Mr. Shibuya commented that communities should manage and be accountable to their risk management activities, because they are ultimately most affected by disasters. He further emphasized that disaster management activities should relate to the "day-to- day" activities of the community. Therefore, he claimed that people need to be, most importantly, "empowered" to cope with disasters so that they take care of themselves. Mr. Shibuya further explained five major steps for successful disaster risk management: (a) Assessment; (b) Planning; (c) Implementation; (d) Evaluation; and (e) Reassessment.

General Discussion: The discussion focused on issues such as ways and strategies to close the gap between government and people so that CBDM can be realized and effective. Also, exchanges took place on the importance of diversity and pluralism when executing CBDM activities. Further discussions referred to the importance of mobilizing people and achieving good working relationships between the people and the government.

Xavier Castellanos
Disaster Preparedness Delegate
International Federation of the Red
Cross and Red Crescent Societies
(IFRC)
Trinidad and Tobago

Mr. Castellanos is an active member with IFRC undertaking various projects related to disaster management and, in particular, in the areas of communication, education, training and capacity building. Prior to this current position with the IFRC, Mr. Castellanos was also an Information Delegate of Regional Delegation in Guatemala IFRC. He was also a facilitator in many training programmes in the Caribbean and Latin American region. Furthermore, Mr.Castellanos has previous experience in the field of media and communication as a television producer. Mr. Castellanos holds a degree in Communications for Development, specialising in Communication and Health.

From Policy to Action

One of the most interesting examples of community involvement and organisation that I have personally experienced, happened in the Andes, in South America, where a significant number of indigenous communities reside. There is a common word used in their native language, Quichua, a word that has the power to mobilise the people of the community to engage in specific activities that benefit them and the word is "Minga".

Minga, has been used by Andean communities for generations, for one purpose - collaboration on specific tasks such as building roads, harvesting, cleaning, and so on. Just one word encompasses the concept of collective work from the members of the community for the good of the community itself or at the request of another member of the group. It is clearly understood that if a person gets the support, he/she also has the obligation to support the others, whenever required.

This tradition has continued for centuries. In fact, it has spread to urban areas, and it is still possible to hear a Mayor, or well-recognised politician, use the word "Minga" when trying to win the support of people for a cause that will ultimately be to their shared benefit. Once the word is mentioned, people automatically understand that whatever the task is, there will be participation from everybody for a good cause. However, as communities become more urbanised and globalised, "Minga" has started to lose its meaning and impact.

I found this example fascinating because indigenous knowledge and practices have a huge impact at the community level, especially if a common goal is shared and when one word means so much.

Let me share my thoughts on what the word "Minga" involves from my experience:
a. Community organisation;
b. Community leaders with a credible voice;
c. Trust and acceptance;
d. Code of conduct ruling the "minga" before, during and after;
e. Solidarity and later reciprocity to support others;
f. Mobilising and empowering;
g. Ownership and respect;
h. Planning;
i. Teamwork;
j. Effective communication;
k. Independent actions towards concrete results, and;
l. Collective care and humanity, etc.

It seems to be clear that key elements on how communities behave and are built, lies in how groups of people evolve together - sharing experiences, looking after one another, creating long term engagement, accepting rules and visions, and respecting those minimum patterns, behaviours and values towards building a good community environment.

Active participation in the day-to-day development of countries sometimes forms part of local and central government policy, but community participation and integration in the development of policy, is something that is required in the long term. Generally speaking, in most of the countries in the Latin America and the Caribbean (LAC), there is little community organisation and participation in decision making and policy. This is because there is a breakdown of societies coupled with cultural and educational impoverishment that often goes hand-in-hand with economic exclusion.

The question that we constantly face is how do we get the "excluded" to participate more? Therein might also lay the answer that we are looking for because if we take the example of the "Minga" – the solidarity offered is solidarity that grows and this leads to interdependency, participation and trust, which are all substantial elements for success.

Integration, participation and awareness-building should become instruments towards ownership and empowerment at the community level, while incentives towards sustainable risk reduction practices by communities, must be incorporated into the disaster management strategy in the government local or national master plan. Disaster master plans with risk reductions should become the heart of the country's development strategy. If that is possible, then legislation becomes more relevant.

The question here is no longer whether community involvement in reducing risk is needed – but how to ensure that communities participate in sustainable risk reduction activities which are an important part of local and central governments' master plans.

The challenge now is to make sure that governments agree to incorporate risk reduction initiatives as part of sustainable development and capacity-building, and include it in their planning and budgeting as part of poverty reduction. This commitment can only be effective through good government and management based on principles of participation and responsibility, which are relevant for all type of organisations and institutions.

- Community participation should be seen as the strategic focus;
- Community education based on risk and vulnerability reduction should be holistic and reflect disaster management, health and capacity building initiatives;
- Specialised training should be given to local government and communities on vulnerability and capacity assessment techniques;
- Advocacy with and for the communities should be promoted with local authorities and organisations, and;
- Institutional and policy awareness should be highlighted to make governments aware of how risk reduction reduces the human, economic and social losses caused by disasters.

International agencies should also see the community as the main beneficiary and actor where community based disaster management initiatives are developed. In most cases, the implementation of projects is fully based on

Panelist Paper: X. Castellanos

community participation. Organisations such as, the European Community Humanitarian Aid Office (ECHO), one of the main donors for the International Federation of Red Cross (The Federation) in the Caribbean, who clearly stipulate in article 17 of their Essential Procedures for the Implementation of Humanitarian Operations the following:

a) promote the participation of beneficiaries in the formulation, implementation and evaluation of humanitarian aid operations;

b) endeavour to base humanitarian aid operations on local capacities, respecting the culture, the structure and the customs of the communities and of the countries where the humanitarian aid operations are carried out, without prejudice to the fundamental rights of the person.

The "Code of Conduct" for the International Red Cross and Red Crescent Movement and nongovernmental organisations (NGOs) in disaster relief seek to guard our standards of behaviour. It is not about operational details, rather, it seeks to maintain the high standards of independence, effectiveness and impact to which everyone aspires. It is a voluntary code, enforced by the will of organisations accepting it to maintain the standards laid down in the Code. To date 227 organisations had signed up to the Code.

The Federation's policy on disaster preparedness states: "Improve the ability of vulnerable communities to cope with disasters through community-based disaster preparedness strategies that build on existing structures, practices, skills and coping mechanisms. Recognising that a community-based approach is the best guarantee that improvement in disaster preparedness will be realised and sustained, the assisted population must participate in the planning and preparation for disasters. All activities and programmes should be sensitive to issues of gender, generation and the needs of vulnerable groups, such as the disabled."

These three examples show how international agencies' policies actively encourage community participation in disaster management initiatives. Conversely, local or national governments vary enormously in their level of commitment towards risk reduction and community participation. Based on the experience in LAC, a commitment to civic participation and a transparent decision making process that ensures long term sustainability is required. The gap between policy and implementation seems to be the main difficulty that local and national governments face when disaster management activities need to be implemented at community level. This may be, because of the nature of governments that are more used to dealing with bureaucracy than they are with dealing with the most vulnerable communities.

Nevertheless, the impact of disaster management activities can be bigger than originally expected. In Jamaica for example, a community based disaster management project that was implemented by the Red Cross reduced the "gap" between government and communities through a project where the Social Development Commission; the Office of Disaster Preparedness and Emergency Management (both government agencies); jointly with the Jamaica Red Cross implemented a community-based disaster management project in

six communities. Each one of the actors put in place their capacities, and through a participatory process, grass-roots volunteers from the Red Cross contributed to the facilitation of a project where policy, planning, and action were combined towards a common objective to save lives.

In my opinion, government and international agencies' notion of "community" is perfectly well understood. What needs to be considered now is how to reduce the "gap" between vulnerable communities and government bureaucracy. Partnerships between all the stakeholders, starting from the core of the community to the government and humanitarian and developing agencies may contribute to a wider impact and a more accountable use of funding.

Vulnerability relates to insecurity and insecurity to needs. Community needs can be reflected either by individual needs or collective needs. Both can have different interests. Nevertheless, the interaction of different members of the society makes it possible to create a meaningful environment that will in turn enable and shape individuals to appreciate, understand and value collective needs as a priority. I am making reference to a process that goes from the individual to the collective experience and which pools individual resources for collective social transformation.

This process is a result of the interaction and co-operation of a group of people acting together, which in turn activates a powerful force capable of generating empathy, solidarity and creativeness. A force that brings individuals to collective needs where different knowledge, practices, values and beliefs combine to create more powerful, more sustainable, solutions.

neutrality

In order to continue to enjoy the confidence of all, ...national Red Cross and Red Crescent Movement... ...es in hostilities or engage at any time in controv... ...olitical, racial, religious or ideological nat...

Central governments in the LAC Region are probably too far removed to recognise the possibility of this happening in everyday work on community issues. However, if local governments recognise this, the interaction of municipalities with the vulnerable communities will be closer and needs will be better understood and recognised. Decentralisation is also important since responsibilities shift to the local level, where there is a lack of funding, resources, and skills.

We need to encourage educational processes where the main roles would be played by people who are living in a situation of vulnerability. This turns individuals into participants in a process and they can then find a meaning to their actions and ways to reflect on their own reality. But not all processes assure the presence of individuals, especially processes used by many of the decision makers that deal with policy or planning. This is when a bottom-up mechanism is so important since it allows proactive communities to voice their problems and make decision makers aware of their needs.

Particular importance should be given to a process where all people living in a community can participate.
1. It must relate to the participants' problems or it should increase their awareness;
2. It must reflect the reality that the community is experiencing;

3. It must be dynamic and people should feel motivated to participate;
4. It must help plan the activities that should be carried out to achieve the desired solutions;
5. It must develop capacities so that individuals at the group level, develop the capacity to make decisions to solve their most important needs.

The above needs should be linked once again to the willingness of governments, to encourage the issue of risk reduction as a matter of development. Natural disasters like hurricanes George, Michelle, and Lili in the Caribbean and hurricane Mitch in Central America and earthquakes in El Salvador and Peru in the recent years have shown that a great percentage of budgets initially assigned to development issues are then redirected into rehabilitation and reconstruction. In other words, development plans are affected, funds for development ended during the reconstruction phase, and in some cases, communities simply had the original risks rebuilt due to lack of clear policy and orientation towards risk reduction. Therefore the questions of sustainable livelihood integrated into risk reduction cannot be perceived as a "bottom-up process" only. It requires a holistic approach and needs to be addressed at different levels.

In the Caribbean for example, the Association of Caribbean States noted that the promotion of sustainable livelihoods is possible within government programmes. They also noted that the concept should be classified as "priority" and included in government strategies for risk reduction. This will, leave agencies or national offices responsible for handling the subject, thus giving more possibilities that policy will be converted into action.
What encourages me, in this statement, is the clear interest given to the subject, and the intent to promote dynamic and concrete actions. For policy to be translated into action, more tangible assets, either physical and financial or nontangible assets, such as training in disaster management, representation on decision making, etc., must become common indicators of sustainable disaster management approaches. Local governments as well as different NGOs must be able to build linkages with community stakeholders, and establish an approach that sits between disaster and development. This was emphasised during the Inter-American Conference of the Red Cross Societies which was held in Santiago in 2003, with the presence of thirty-five national societies for the LAC Region which established a key document (The Santiago de Chile Commitment) which suggests going beyond the vision of a continuum from disaster to development and adopting a vulnerability to development process, in which the approach sees **people** as the starting point of all interventions and capacities are enhanced towards reduction of the risk.
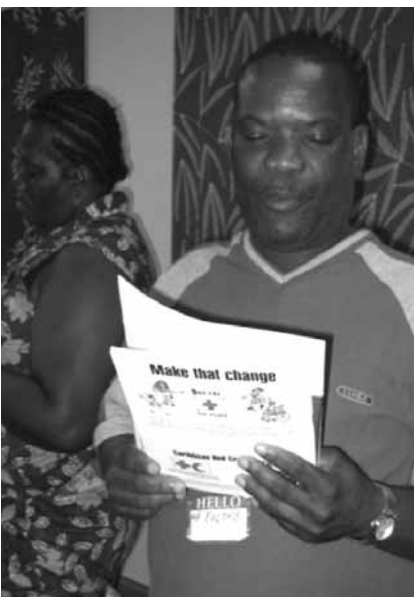
This brings me to a final analysis which is related to human security and community-based disaster management. As mentioned before, vulnerability is very much related to insecurity, and uncertainty.

How can we develop personal capacities in conditions of uncertainty? It is not possible if we do not offer the minimum security. Security overcomes uncertainty and once people accept their own potential they are more capable of facing vulnerabilities. The rationale behind a community-based disaster

management approach is to deal with those issues and empower communities to take decisions that will positively or negatively affect the community, but most important, decisions will be made by the community themselves. This in turn will encourage a transformation from an attitude of indifference and passive acceptance, to one of problem solving and action

The LAC experience has shown us that the true teachings of the community allow people to establish sustainable livelihoods, by means of participatory, democratic and flexible processes. "Minga" could be the practice that bridges the gap between policy and action and which helps guide us towards sustainable disaster reduction initiatives.

Policy

Action

MINGA

"Minga" could be the practice that bridges the gap

The Challenges in Achieving Sustainable Community Based Risk Reduction: A Southern African Perspective

The Southern African Disaster Risk Context

Disaster Management in southern Africa has been characterised by a legacy of emergency response and relief, which has often failed to support the local capacity of communities to sustainably reduce their risk through prevention and mitigation. The greatest reflection of this is that despite substantial resources being made available for sustainable development and for emergency response and relief, financial resources made available for the incorporation of risk reduction in developmental planning are far fewer. Currently, in southern Africa millions of dollars are being provided for emergency food assistance to an estimated 14 million people facing acute food insecurity, as a result of political, economic, and climatic factors. However, securing comparable financial resources for prevention and mitigation is difficult, as risk reduction principles are not sufficiently incorporated into developmental plans or programmes.

Regional and national efforts to address this situation have included changes at a policy level with both the Southern African Development Community (SADC) and central governments making policy commitments towards an 'integrated and coordinated approach to disasters and risks that not only reduce disaster losses, but also have broader benefits to communities at-risk' (South African DM Framework). The *South African Disaster Management Act* (2002) identifies disaster prevention and mitigation as its core principles in "achieving the goal of disaster risk reduction, in which vulnerabilities and disaster risks are reduced and sustainable development opportunities strengthened".

At the centre of South African disaster management legislation is the incorporation of disaster prevention and preparedness into developmental policy, planning and programmes.
In light of this the South African Disaster Management Act has stipulated that **all** government departments must integrate vulnerability reduction measures into ongoing programmes as part of their disaster management plans. At the local level, the incorporation of disaster risk principles into development plans is achieved through the Municipal Systems Act, which identifies disaster management plans as core components of municipal integrated development plans (IDPs). This is particularly significant, as disaster management is not mandated at the municipal level, and so allows for cross-sectoral funding of developmental and risk reduction programmes at the local level.

The Challenges in Achieving Sustainable Risk Reduction at a Community Level

Southern Africa faces the challenge of rapid urbanisation, the effects of global

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climate change, the impact of HIV/AIDs, challenges of emerging systems of democratic governance, challenges faced by post-war contexts in Mozambique and Angola, protracted droughts and increasing environmental degradation, all of which are increasing disaster risk at a staggering rate. In southern Africa there is an increasing awareness that small- and medium-scale events are increasing in frequency and magnitude, with losses being borne largely by poor and socially disadvantaged urban or rural communities. These communities are often unsupported by local, national or international agencies, except in times of a chronic emergency. As a result many communities develop local mechanisms for coping and adapting, such as social support networks or by diversifying their livelihoods. The challenge however, is that these practices are often not appropriate or sustainable, as they are seldom supported by local development plans and thus, force communities into a situation of coping in times of an emergency as opposed to reducing their risk through ongoing prevention and mitigation.

At the centre of the *South African Disaster Management Act* is an explicit focus on the reduction in vulnerability of "disaster-prone areas, communities and households". In southern Africa this is particularly significant as the rapid rate of social change, driven largely by the fastest rate of urbanisation in the world, means that the notion of communities is changing dramatically. As a result, the concept of households at-risk has been introduced as it allows for a greater differentiation of risk between households. An example of this can be found in one of Cape Town's informal settlements, where there are over twenty-nine "community" representatives. In this case it is more useful to work with the households most at-risk, than with the "Wallacedene community" as a whole.

Achieving Sustainable Community-Based Disaster Risk Reduction: Lessons from Southern Africa

The notion that "community" based approaches build or enhance the local capacity of communities and households to reduce and manage their risk is increasingly recognised as a more effective approach of averting long-term disaster losses. This approach involves the active participation of communities in the design and implementation of programmes in collaboration with a wide range of stakeholders to ensure that communities and households take ownership of initiatives. Explored below are a number of key strategies to ensure the sustainability of community based disaster risk initiatives. These strategies are drawn from lessons learnt in southern Africa.

- **Co-operative governance : participation of a wide range of stakeholders**
  The active involvement of the private sector, NGOs, traditional leaders, technical experts, volunteers and the community is critical to ensure co-operative governance. In South Africa, increased co-operation and coordination between these stakeholders and different spheres of government should be achieved through proposed Disaster Management Advisory Forums. At a community level, this may also involve establishing local committees or working with existing institutional structures. It is however, important that the roles of relevant

Panelist Paper: H. MacGregor

stakeholders are clearly defined and that any committee or forum neither opposes nor duplicates existing institutional structures.

- **Inclusive of the most at-risk households**
  All risk reduction initiatives need to be inclusive of the most at-risk households. This may include households who are silent either due to social or political marginalization and may include women, children or the elderly. In southern Africa the high incidence rate of HIV/AIDs amongst young and adult populations has resulted in an estimated four million AIDs orphans in six countries alone,[1] many of whom will have to assume the responsibility of heading the household. Child-headed households are most at-risk, as they may experience chronic food insecurity and will often adopt high-risk survival strategies such as transactional sex which places them in even greater risk.

Reduce the Risk of Recurrent Small and Medium-Scale Events

In southern Africa there is a recognition that the number of small- and medium-sized disaster incidents are increasing. In the MANDISA database[2] (Mapping and Monitoring of Disaster Incidents in South Africa) over 12,500 incidents were recorded for the Cape Town metropole between 1990 and 1999, with a high percentage of single dwelling fires in informal settlements and only six declared disasters. This illustrates the reality of "everyday risk", which is reflected in disaster losses triggered by small- and medium-scale recurrence. Given a disaster risk profile characterised by a high frequency of small- and medium-scale events, it is clear that risk reduction efforts should focus on building the resilience at a community and households level.

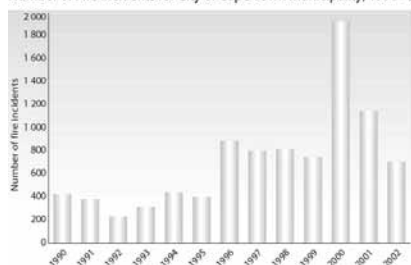Number of Fire Incidents for City of Cape Town Municipality, 1990 - 2002

Strengthen Existing Capacities within the Community Through Active Participation

In the majority of emergency situations communities are reliant solely on community coping strategies before relief aid arrives. The strengthening of these strategies is therefore critical in not only saving lives but securing assets, and therefore reducing disaster losses. In Mozambique, the German Agency for Technical Co-operation (GTZ) in collaboration with the local district authorities and eight villages initiated an early warning and preparedness programme for cyclones. The programme has strengthened existing early warning systems, through improved communication of early warnings using the local radio station, river water markers and three different coloured flags to notify households of an encroaching cyclone. The active participation of all stakeholders is critical in strengthening the communities' capacity to not only improve early warnings and preparedness planning but, in addition to this, reduce long-term risk through prevention and mitigation. To avoid duplication or mismatched programmes capacity-building programmes must strengthen local indigenous knowledge, cultural taboos or social practices/in order to blend in with the local social and cultural context.

Strengthen Regional Co-operation

Disaster risk is not constrained by national boundaries and therefore disaster

management plans need to be developed with a regional focus. At a regional level, the Southern African Development Community (SADC), in collaboration with the United Nations Development Programme (UNDP), has developed a multi-sectoral disaster management strategy. One of the integrated strategies presented for managing droughts and floods in the SADC region has been the Water Sector Coordinating Unit, which assists in the development of co-operative agreements on shared river basins within the region. Such regional policies are particularly significant in cases such as the Mozambique floods in 2000. The failed notification of water being released from the Chikamaba Dam in Zimbabwe resulted in Mozambican riverine communities being flooded without adequate warning. In this case the regional co-operation agreements will include sharing of early warning information. Furthermore, the development of joint standards of practice across countries to ensure that there is uniformity in standards of humanitarian assistance and mitigation across the region is also included.

A New Way Forward: Transferring Risks into Opportunities

Many households make conscious choices to live in conditions of known risk, having calculated an acceptable level of loss in relation to their livelihood opportunities. One case is of small-scale Mozambican farmers living and farming in close proximity to the river due to the high nutrient soils and easy accessibility to water. The risk of annual cyclone-induced flooding is however high, with increasing efforts by local authorities to encourage farmers to move to higher ground. The consequences of relocating without adequate alternatives, such as irrigation, place these farmers at risk of drought, with direct consequences for their livelihoods. In such a situation empowering communities and households to manage and reduce their risk, can in turn assist them in seeking sustainable livelihood opportunities that otherwise may pose a potential threat.

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Panelist Paper: H. MacGregor

Community Risk Management - A Living Legacy

Introduction

Amidst vulnerable conditions, it is the communities' natural tendency to protect themselves from the harm and danger posed by various types of hazards, be they natural or human sourced or a combination of both. Therefore it is imperative that communities in areas prone to hazards enhance this inherent capacity and make themselves robust so that they are not only "disaster resilient" but "disaster resistant" communities. This short paper will deal with the fundamental features of Community-Based Disaster Risk Management (CBDRM) or Community Risk Management (CRM) for possible replication in other hazard prone areas. As CRM is practical and has proved to have saved lives on many occasions, it can be considered a living legacy.

Relevance of CRM

Why are some communities in Asia at risk? First, communities are situated in hazard prone areas: seismic, coastal, mountain slopes, watersheds and urban centres. Second, there is something wrong with the way communities are designed and built in these hazard prone areas. Third, the socio-economic and political processes in most countries aggravate the vulnerable condition of the communities.

As a response to these situations, local people organise themselves to fight disasters in various forms that we may call preparedness and mitigation. Experiences in fighting against disasters highlight the importance of the role of local communities as it is an acknowledged fact that whatever the scale of hazards, big or small, it is the local community that either suffers the brunt of or survives from hazards' devastating effects. The population at the local community are the ones affected and as such they become the first responders, who manage the emergencies at the household and at the community level. However, readiness (and capacity) is insufficient, if vulnerabilities are too great, and if the scale of hazard is too big, then the risk is too high, emergencies may not be managed locally, the communities may not cope, disaster will occur. By managing emergencies well, they prevent the escalation of these emergencies into disasters. But more than this, local communities take measures to manage risks long before the hazards strikes. In this light, disaster risk management is most appropriate and relevant at the community level.

Fundamental Features of CBDRM
Community Awareness
It is important that communities at-risk come to realise and understand that they live in areas of risks, know the specific dangers that they are exposed to and the warnings that are issued, and know the appropriate actions to be taken to protect their lives and minimise property damage. People's experiences in disaster make them conscious of the danger they face on a daily basis. They compel people to become more proactive and work together. Awareness

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Ms. Delica has an extensive experience in management and training, especially in Community Based Disaster Risk Management. She has been the Executive Director of a national agency, Citizens' Disaster Response Center for 10 years. She has also worked with the Asian Disaster Preparedness Centre for four years (1999-2003). Currently she provides consultancy services to various agencies through CDP. She holds a Masters Degree in Public Health (Adventist University of the Philippines), in Development Practice (Oxford Brookes University with a course on Refugee and International Humanitarian Law from Oxford University), a degree in Business Administration and a degree in Sociology.

leads to action. Collective memory of past negative and positive events motivate them for collective action.

Community Organising

People are interested to protect themselves from harm and suffering through community activities. However, before they can be systematically mobilised for disaster risk reduction activities, they need to be organised first. Organising is bringing people together within the same community to enable them to collectively address a common problem or issue, or collectively pursue common aspirations. Risk reduction activities should be community managed, not simply community based. Community based could mean that disaster risk reduction programmes, though based in certain localities are essentially managed by NGOs or local government agencies. Local people participate only in the outsiders' agenda. That is why community organisation is crucial to ensure that community participation scales-up to management of people's resources for their own benefit and safety. Organizational mechanism should be in place in every community for sustainability. Community organisation is the focal point for local leadership, responsibility in risk reduction programmes and networking.

The important role of NGOs and Local government

In CRM, while the local people are the primary actors, NGOs and local government have important facilitative roles from situational analysis to the planning and implementation of risk reduction measures. Disaster resistant communities are difficult to attain by individual communities alone. The enormous requirement demands the involvement of the local government, who in turn should enlist the support of all stakeholders. It is at the local governance where the integration of risk management and development planning takes place.

The Supportive Role of Central and Principal Government

CBDRM approach requires political will at the national and province level to formulate new policies and guidelines and allocate resources to institutionalise mechanisms that support risk management activities. Policy-making should be more bottom-up than the usual case, with greater stress on what can be learned from CRM successes and how best to enable, sustain and scale it up.

An all-inclusive approach

While it is recognised that community participation and empowerment is the fundamental principle in CRM, a top down or directive approach is also necessary to enforce laws and regulations, for example in the area of environmental protection.

Adequate support mechanism

There is a need to provide support to research, documentation of CRM cases and promotion of CRM practice. Funding is an essential lubricant for successful CRM. There is a need to re-examine the funding scheme: how much really goes to community risk management?

Development and Progressive Framework

The aim of CRM is to maintain public safety and safeguard development gains. The requirement from CRM is to institute sustainable mechanism to manage risks (reduce people's vulnerability and increase their capacity). The strategy of CRM is to develop disaster resilient and disaster resistant communities. The increasing human and property losses from disasters remind us of the need for proper development planning that would ensure the

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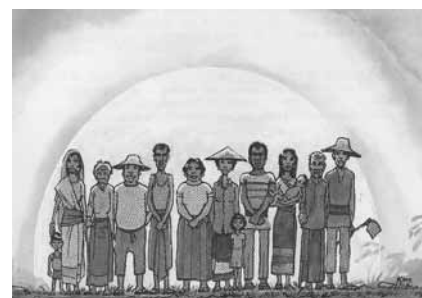
designing and building of communities in safe areas in the future. Since it is nearly impossible to rebuild housing and facilities and relocate communities to safe areas, there is a need to improve the traditional disaster risk management programme and planning – mitigation, preparedness, response, and recovery that make communities more disaster resilient.

Disaster resilient communities are "flexible and elastic". Resilient communities can be compared to bamboo. The bamboo withstands even the strongest typhoons as it sways with storm winds. This means that communities that are hit by a disaster are able to spring back and resume their original form and readily recover and adjust easily. They are able to cope. This is a result of community disaster preparedness plan.

Disaster resistant communities are communities in which residents are aware of the hazards; know how to, and have the skills to protect themselves, their families and homes, their properties and livelihood from the impact of a hazard. Hazards seldom become disasters. Such a state comes about as a result of mitigation and preventative measures outlined in a comprehensive plan that takes into consideration every aspect of community existence: including primarily public safety, good health and robust socio-economic life. A disaster resistant community can be compared with a healthy person who can resist the invasion of Severe Acute Respiratory Syndrome (SARS) or some other virus because the person is well nourished and robust and in a state of well-being. It requires political will from government leaders to formulate strategic direction and tactical guidance to lead planners in hazardous areas to attain disaster resistant communities.

To achieve a disaster resistant community is to address the vulnerability question, both the structural and non-structural aspects of society. Donald Geis (Natural Hazards Review, 2000) suggests the following ten inherent principles as a core guide in attaining a Disaster Resistant Community (DRC):
- The need for a holistic and integrated approach
- The redevelopment of existing communities in consideration of the natural and built environment
- The process of creating DRCs must be within the context of an overall larger and integrated process of creating sustainable quality life communities
- The local government's role should be recognised as it is at this level that the planning development process occurs
- A DRC must be built up from the grassroots level, respecting the unique qualities of each community.
- The disaster risk management function should be enhanced by providing the best support for developing risk reduction measures.
- The additional benefit of a DRC – environment, social and economic opportunities can motivate and empower communities and actually implement it.
- Living in communities as safe as possible from natural hazards should not be considered a luxury or bonus, but a basic necessity, as basic as a human right.
- The process of creating a DRC is the single most important tool

available for reducing the exponentially increasing cost related to natural hazards.
- The core focus of a DRC is to minimise human, property and environmental losses and social and economic disruption.

Learning from Practice

Though communities may have many commonalties, no communities are alike. However, there are lessons from one community, which can be studied and applied to another community setting. Recent lessons learned in one community could have been long practised in another relatively advanced community. These achievements and lessons in the community-based disaster risk management praxis can be considered a legacy to the overall disaster management

Experiences of hazard-prone communities in collaboration with NGOs and local government on community based disaster risk management (CBDRM) proved that it has gained ground in some developing countries in Asia such as the Philippines, Cambodia, Viet Nam, Lao PDR, Nepal, and India. While there are significant gains in this respect, the practice is not yet widespread. Lessons in CBDRM practice need to be studied and examined for possible application. The commitment and support of the national government to encourage and empower all local government and communities to undertake CRM is still a big challenge for the CRM advocates. The task is huge.

Lastly, community and local government partnership need to be sealed through broad based social mobilisation and coordination. Decision makers and policymakers should welcome the CRM successes and provide support mechanism to scale it up. Investing in the communities' social capital, participatory disaster risk management planning and appropriate management structures and implementation and coordinating mechanism are the key factors for successful CRM. However, in the final analysis, the overall success indicators of CRM is how resilient the communities are during times of disaster and more so, how the communities are finally able to resist disasters.
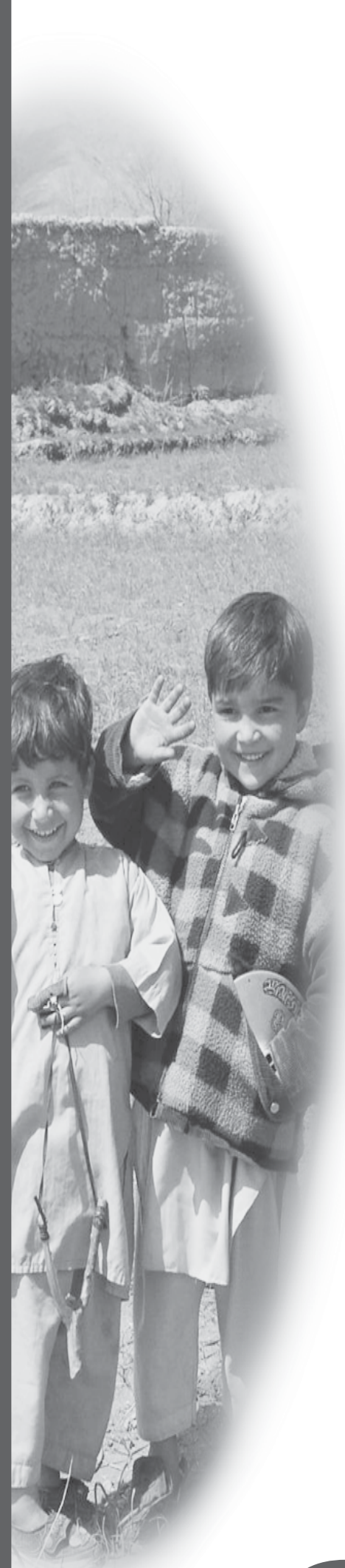
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Panelist Paper: Z. Delica

ENVISIONING
THE UN WORLD CONFERENCE
ON DISASTER REDUCTION

Professor Ian Davis, of Cranfield University in the United Kingdom, is a renowned academic in the field of disaster management, promoting a holistic approach in building safer society through, including but not limited to, architecture, planning, and literature. Professor Davis participated in this year's International Symposium on "Community Legacy in Disaster Management" and the two-day Working Group Meeting that was held to further discuss the important issues on community-based disaster management. Especially, at the symposium, Professor Davis contributed his critical analysis at the panel discussion as a co-chair. Based on the discussions and issued raised at the International Symposium and the Working Group Meeting, he has established this report building on some of the more central issues and challenges extracted at this event. As this year's International Symposium is a "Pre-Event" to the World Conference on Disaster Reduction (WCDR), Professor Davis raised and dwelled on these issues in anticipation for further dissemination and debate at the WCDR.

Ian Davis
Professor Emeritus
Cranfield University
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Mr. Davis teaches at Cranfield Unversity and is active as a university lecturer, researcher, architect, planner, writer, specialist in building and physical planning in Hazard-Prone Areas. He also is an expert in emergency shelter, reconstruction planning, refugee settlements, disaster management and risk reduction and the development of training in these fields. He co-authored 'At Risk: Natural hazards, people's vulnerability and disasters', [1994], with Piers Blaikie, Terry Cannon and Ben Wisner. In 1996 he became the only UK citizen to be awarded the United Nations Sasakawa Award for his contribution to International Disaster Prevention.

Issues and Challenges for
Community Based Disaster Management

BACKGROUND

In February 2004 the United Nations Centre for Regional Development (UNCRD) convened a Working Group Meeting and International Symposium on "Community Legacy in Disaster Management" to consider the *'Sustainability of community Based Disaster Management'.* The meeting brought together a global community of 44 persons from 17 countries to share their wide experiences of disaster management at local levels and focus their attention on a central issue. This was the need to collectively identify key issues as well as to throw light on the needs and challenges at the community level in managing disasters and reducing disaster risks. This 'stocktaking task' is an essential exercise in preparing to grasp the unique opportunities that will be presented by the World Conference on Disaster Reduction (WCDR) to be held in Kobe from January 18-22, 2005, precisely ten years after the Great Hanshin-Awaji Earthquake of January 1995.

Therefore this report attempts to reflect on the broad findings that emerged from this consultation, in order to clarify the central issues and challenges that need to be disseminated and further debated at the WCDR. The summary is structured around the strengths and weaknesses in Community Disaster Management and it reflects the stimulating contributions and insights from the participants as we considered together he lessons that have been learned from the recent past. We also tried to identify some of the formidable challenges that lie ahead.
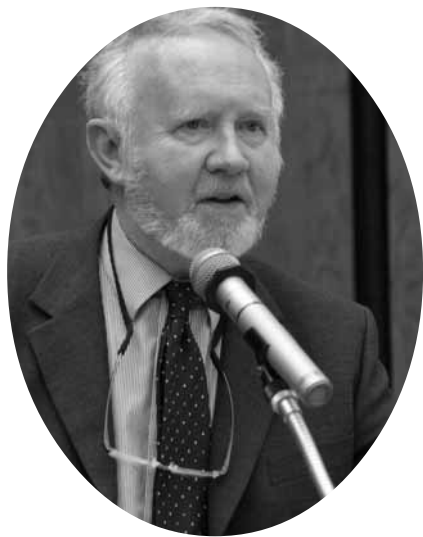
In writing the report I am particularly grateful for the wisdom and experience shared by the participants to the workshop as well as to the staff of UNCRD. The active support and insights of Rajib Shaw and Eiko Narita have proved invaluable.

INTRODUCTION

At the conclusion of the Yokohama Conference on the Reduction of Disaster Risks in 1994 the conference endorsed the *'The Yokohama Message'.* Those of us present at that final session nodded our heads approvingly as these lofty sentiments were read out from the platform:

> *"Community involvement and their active participation should be encouraged in order to gain greater insights into the individual and collective perception of development and risk, and to have a clear understanding of the cultural and organisational characteristics of each society as well as its behaviours and interactions with the physical and natural environment. This knowledge is of the utmost importance to determine those things which favour and hinder prevention and mitigation and encourage or limit the preservation of the environment for the development of future generations and in order to find effective and efficient means to reduce the impact of disasters".*

IDNDR 1994

The luxury of hindsight enables us to read this ten year old message and reflect on its rather limited vision and slightly patronising tone. The Yokohama Message *'encouraged'* community involvement in reducing disaster risks, and sought for a clear (and passive) *'understanding'* of a given society's characteristics, behaviour and interactions with the environment.

Five years after the Yokohama Conference the IDNDR Programme Forum was held in Geneva. This gathering was convened to review progress as the International Decade for Natural Disaster Reduction (IDNDR) was drawing to a close. It was significant to note in the Forum Report the significant progress that had been made since Yokohama in relation to the need to give a priority concern for community action:

> "…the people most vulnerable to disasters are the poor, who have very limited resources to avoid losses. Environmental degradation resulting from poverty exacerbates disaster impacts…Innovative approaches are needed; emphasis should be given to programmes to promote community level approaches"
>
> IDNDR 1999

If a new '*Message'* is to emerge from Kobe in 2005 concerning community involvement in reducing risks it will certainly be infinitely more 'upbeat', more active and certainly more positive than the 1994 Yokohama Message, and it will build from the active approach defined in the Geneva Forum in 1999. This became very clear during the course of this consultation which was characterised by a continual flow of evidence of the positive impact of disaster management at community levels.

During the past decade policy changes in National Level Disaster Planning in most countries that take disaster risk reduction seriously have belatedly recognised that *'all disasters are local in their impact'* and therefore if disaster plans do not start from the ground level they simply do not work effectively.

In addition, a rich and wide diversity of community based projects have occurred at a global scale in such areas as community preparedness planning, early warning systems linked to community evacuation procedures, strengthening unsafe village housing and school buildings, educating children in a 'national curriculum' of protection measures and water harvesting in drought prone areas. Agency programmes with a priority concern to focus on the community needs will also be documented in the WCDR, such as the innovative Red Cross focus on community level risk assessment. This has a balanced focus, using tools to assess vulnerabilities in parallel with an assessment of latent capacities within communities that can address some of their own problems. I also expect the vital UNCRD emphasis over the past five years to promote actions at the community level will be described as a model programme for possible replication by national governments and international agencies.

Thus with the weight of community based evidence that will be assembled, it is likely that the conference will strongly echo the observation by Franklin MacDonald, (until recently the National Director of the Ministry of Planning

and Conservation, Government of Jamaica), as he reflected on almost 30 years of disaster experience within the Caribbean region :

"The best defence against disaster is a well prepared local community"

KEY ISSUES AND CHALLENGES

The remainder of this paper is made up of issues that surfaced during the consultation. In the summary I presented at the conclusion of the session I structured my observations around the strengths as well as the weaknesses that had been identified by participants. Therefore this format will also be used in this report. Throughout the report I have made extensive use of the comments of colleagues who participated in the consultation.

After each strength or weakness a 'challenge' is proposed for assisting groups. These challenges may assist in formulating a priority agenda for future progress, with the support of the impetus presented by the WCDR. These 'challenges' are stated after strengths as well as following the weaknesses. While it is obvious that weaknesses pose major challenges that need to be addressed, it is clear that challenges are also posed by 'strengths'. So often progress is announced in a given area, presented as a significant 'strength', but is subsequently found to be a 'short-lived' gain with results that were purely temporary and never 'internalised' or 'institutionalised' into the culture with any degree of permanence.

STRENGTHS OF COMMUNITY RISK REDUCTION

1. Resilient Communities

During the meeting the concept of 'resilience' received emphasis. Zenaida Delica from the Center for Disaster Preparedness in the Philippines showed the participants a slide of a bamboo *"Disaster resilient communities,"* she reminded us *"are flexible and elastic. Resilient communities can be compared to bamboo. A bamboo withstands even the strongest typhoons as it sways with storm winds."* This means, that communities that are hit by a hazard, which then becomes a disaster, are able to spring back and resume their original form and readily recover and adjust easily. Thus they are able to cope and this is as a result of a communities' disaster preparedness plan and its coping strength.

This picture of a bamboo swaying in a strong wind is a potent metaphor of an organism that can readily bounce back, just as Kobe recovered from a massive shock in the short space of under five years. The ability to recover, and this word "resilient communities" is likely to echo around The Kobe Conference Centre in January 2005, since this is a concept which so many disaster theorists and practitioners are currently working on. The pressing concern is how to assist a community to become strong enough to absorb shocks and bounce back, and then bounce back even stronger than before a disaster.

Sohel Khan , the Project Team Leader of the Capacity Building for Adaptation to Climate Change (CACC) in Vietnam, described projects that were concerned with the creation of resilient and safer villages. This was a particularly

interesting attempt to consider the 'collective security' of an entire settlement through a combination of structural and non-structural risk reduction measures. A feature of this programme is its emphasis on improved outreach for agricultural extension techniques and the development of practices to reduce livelihood losses from disaster impact.

Khan 2004

The notion of resilience has grown in recent years to become a useful approach to disaster management since it has an all-embracing aim and focus that relates to the three closely linked aspects of disaster management:
-   Phase 1. Pre-disaster context,
-   Phase 2. Immediate post-disaster context,
-   Phase 3. Recovery/ reconstruction context.

'Resilience' focuses on the ability of communities and their property to adapt to the disaster forces, to cope with the disasters by absorbing the stresses of extreme hazards and to bounce back from the traumatic experience by recovering their form. Resilient communities demonstrate the following characteristics:
-   Phase 1. Pre-disaster context,
    (**reduced failure probabilities** *due to the introduction of risk reduction measures*)
-   Phase 2. Immediate post-disaster context,
    (**reduced consequences from failure**, *such as fewer lives lost, reduced damage and community disruption due to a focus on preparedness planning and improved emergency management practices*)
-   Phase 3. Recovery/ reconstruction context.
    (**reduced time for recovery** *due to a focus on fast but safe reconstruction and recovery of livelihoods*)

The CHALLENGE is to implement wide ranging measures within communities that focus on the development of four key requirements:
-   **robustness,** *(strong community organisation and strong buildings and infrastructure that aim to withstand disaster forces)*
-   **redundancy,** *(building into community disaster plans alternative ways to meet community needs following disaster)*
-   **resourcefulness,** *(creative plans and innovative procedures that maximise the capacity of the community)*
-   **rapid recovery,** *(ways to optimise the time for recovery following disaster)*

This CHALLENGE can be visualised on the following graph *(Fig 1.)* **where the aim, as well as challenges in creating resilient communities can be graphically visualised in all three phases of Disaster Management. The following text seeks to explain how this graph works.**

Davis 2005

1. The **Horizontal Axis** represents elapsed *time*, probably representing a number of years from the start on the left hand side to the finish on the right hand side.
2. The **Vertical Axis** represents the quality of the community, including its social and economic resilience and the safety of its property including
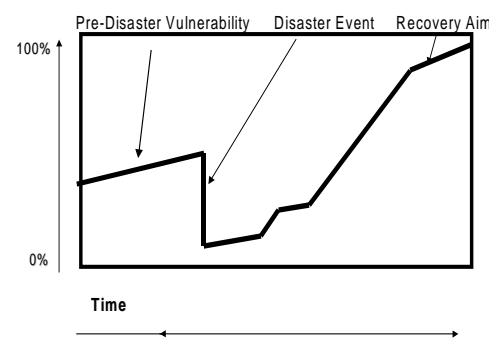

Fig.1 - TIME-LINE OF A COMMUNITY PREPARING FOR, EXPERIENCING AND RECOVERING FROM A DISASTER

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buildings. The axis represents zero quality at the base moving up to 100% or optimum quality at the top of the axis.

3. The **line in the centre of the graph** represents a developing situation for a given community over a space of time from before a disaster event (Phase 1), during a disaster (Phase 2), and recovering from a disaster (Phase 3)

   - **Phase 1**

   The first section represents **pre-disaster vulnerability**. The graph represents a community within a developing country with considerable resource limitations, thus it starts only half way up the quality scale at about 40%. This particular community is vulnerable to future disasters since it lacks safety measures. However it may have attempted to introduce risk reduction measures in order to build a more resilient community able to sustain shocks. The line is not horizontal; it rises slightly as time passes. Most societies are seeking to improve year by year with gradual increases in the quality of life, improvements in livelihoods, developments in community safety etc.

   - **Phase 2**

   The second section represents the shock of a severe **disaster event**. Thus the line drops vertically representing a sudden loss of 'quality'. The obvious aim here is to reduce the drop to a minimum by improving emergency management through effective preparedness planning. This is in order to save lives and reduce damage so that the community can become sufficiently resilient to cope with the disaster impact and bounce back.

   - **Phase 3**

   The third section represents **disaster recovery**. There is an ambitious double aim here for the community. Firstly to recover rapidly *(reducing the length of the horizontal recovery line)*. The second aim is to recover <u>above</u> the level at the time of the disaster, since this was a condition of vulnerability *(expanding the vertical line above the 40% quality level at the starting point of the graph)*.

   It is recognised that Fig. 1. is an exceedingly optimistic model since it is a rare event for rapid disaster recovery to occur, and even more exceptional for recovery progress to reach an enhanced quality level that rises above the pre-disaster vulnerable norm.

   The issues raised by Fig 1.vividly remind me of the first Management Training Course I led in Oxford back in 1982. A senior Red Cross official was making a presentation on Disaster Recovery and he stated that the key principle must be to **'restore normality'** This prompted an exclamation from a perceptive Jamaican nutritionist who was sitting in the back row of the class. *"I am afraid you are wrong"* she shouted emphatically, *"..in my country we have people who live in cardboard boxes, that is their 'normality', so are you seriously suggesting that in the recovery plan we put them back in these boxes? No our 'normality' is the same as 'vulnerability' and in recovery planning you must surely aim to reach a higher standard than the pre- disaster norm"*

2. Community Coping Strategies

Helen Magregor of the Disaster Mitigation for Sustainable Livelihoods Programme in the University of Cape Town made a perceptive observation that many communities:

> *".. develop local mechanisms for coping and adapting such as social support network, so by diversifying their livelihoods. The challenge, however, is that these practices are not often appropriate or sustainable, as they are seldom supported by their local development plans, and thus force communities into a situation of coping in times of an emergency, as opposed to reducing their risks through on-going prevention and mitigation."*

She is saying that some communities, all they can do is to barely survive. And yet they have got to go beyond these coping mechanisms to reduce their risks, and for this to happen they need to be supported by local development resources that have been identified in the disaster plans. This requires some outside interventions to support it. Thus we really have got to move beyond just the issue of "survival", into something much more practical, much more far-reaching, something that is sustainable over time.

The CHALLENGE is to recognise the value of community coping strategies as the key mechanism to make them resilient to the 'shocks and traumas' of disaster impact. However to be of any long term value these capacities need to become 'institutionalised' and incorporated into local government disaster plans.

3. Mutual Support

Xavier Castellanos Mosquera, the Regional Delegate of the International Federation of Red Cross Societies (IFRCS) introduced participants to the concept called 'MINGA' that he had observed in Equador and it captured our imagination. This is an ancient system of self-help and mutual support that developed in the Andean Countries of Latin America, and still survives in certain areas. 'MINGA' encompassed certain values that are the foundation blocks of effective community based programmes: common goals, collective care, shared understanding leading to shared ownership and mutual respect.

Castellanos suggested that 'Minga' involved a broad collection of qualities and attributes:

> *Community organization;*
> *Community leaders with a credible voice;*
> *Trust and acceptance;*
> *Code of conduct ruling the "minga" before, during and after;*
> *Solidarity and later reciprocity to support others;*
> *Mobilizing and empowering;*
> *Ownership and respect;*
> *Planning;*
> *Teamwork;*
> *Effective communication;*
> *Independent actions towards concrete results, and*
> *Collective care and humanity, etc."*
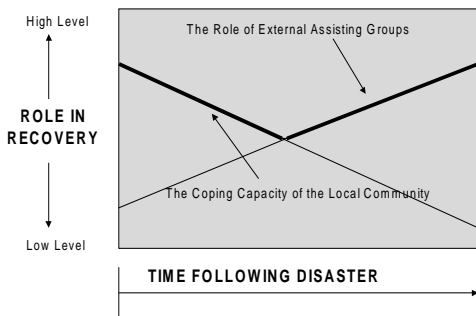
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Fig.2 - GRAPH SHOWING THE DECLINE IN COMMUNITY COPING AS EXTERNAL ASSISTANCE INCREASES

From his extensive experience in leading community programmes in Latin America he concluded that the way:

> "…communities behave and are built, lies in how groups of people evolve together - sharing experiences, looking after one another, creating long term engagement, accepting rules and visions, and respecting those minimum patterns, behaviours and values towards building a good community environment."

Castellanos 2004

This CHALLENGE places assisting agencies on the 'horns of a dilemma' that lies at the very heart of their mandate. How can assisting groups strengthen traditional community coping stategies, (such as 'MINGA') when these vital social, economic and physical mechanisms can be eroded or displaced by the presence and actions of these external assisting groups? *(See Fig. 2)*

4. Public Learning

Within the past decade there has been a rapid growth in formal and informal attempts to promote genuine learning about disaster threats in order to change behaviour patterns to protect lives and property. A wide variety of communication methods have been adopted. Typical examples include the creative use of radio, with soap opera stories of a community facing a disaster threat becoming very popular in Central America, a 'National Disaster Day' with preparedness drills and street theatre in Colombia, puppet shows being used extensively in China, the development of disaster games in the Caribbean and the implementation of a comprehensive school curricula for all ages of school children in Iran in relation to earthquake risk that include a disaster song for primary school kids.

Recognising that in many developing countries half the population will be under 20 years old, programmes that focus on school children may be effectively used to communicate information and advice to their parents and grandparents, and through this strategy communicate vital information to a large proportion of the entire population.

Md. Shofiqul Alam, Acting Project Coordinator of the Flood Proofing Project of CARE, Bangladesh described the value of a 'participatory learning approach' that had identified a series of flood proofing measures appropriate for isolated flood-prone communities. Through this process poor people living in the high risk areas of Bangladesh had gained more access to social networks and information, and as a result their loss of assets and food stocks had significantly decreased. Alam 2004

'Public Learning' brings all manner of benefits to any community well beyond the sphere of disaster management. Umberto Eco has eloquently expressed the way the growth of knowledge can actually strengthen social relationships and build communities:

> "…the exercise of knowledge creates relationships, continuity and emotional attachments. It introduces us to parents other than our biological ones. It allows us

to live longer, because we don't just remember our own life but also those of others. It creates an unbroken thread that runs from our adolescence (and sometimes from infancy) to the present day. And all this is very beautiful."

<div align="right">Eco 2004</div>

The CHALLENGES posed by these initiatives in public learning are extensive:
1. **How to make certain that the recommendations for safety measures and behaviour are <u>technically accurate</u>;**
2. **How to maintain public education in a state of <u>vigilance</u> in situations where there are long-return period disasters;**
3. **How to switch the emphasis from the rather passively named 'public awareness' to the much more active description, <u>'public learning'</u>.**
4. **How to <u>test the effectiveness</u> of these programmes, to determine what changes in behaviour have followed the education and what levels of family adaptation to the threat to enhance their resilience to disaster impact have taken place.**
5. **How to shift the focus of education from 'individual learning' to <u>'community learning and adaptation'</u>.**
6. **How to make certain that the approaches to public learning are <u>socially acceptable and culturally appropriate</u>. Many of the present posters and leaflets appear to be taken from the excellent US Federal Emergency Management Agency (FEMA) templates with minimal local adaptation**

5. Integration of Disaster Planning

There are two forms of integration needed in Disaster Planning. The first is to integrate the three elements of Risk Reduction, Emergency Management and Recovery Management into a single entity called Disaster Management. *(See Fig 3.)* This integration is necessary in view of the close interactions between these three elements. It is also essential to develop an integrated funding strategy so that more balanced funding is allocated to emergency management and risk reduction.

Magregor presented a paper during the consultation and commented on this imbalance within South Africa:

> *" Disaster Management in southern Africa has been characterized by a legacy of emergency response and relief, which has often failed to support the local capacity of communities to sustainably reduce their risk through prevention and mitigation. The greatest reflection of this is that despite substantial resources being made available for sustainable development and for emergency response and relief, financial resources made available for the incorporation of risk reduction in developmental planning are far fewer. Currently, in southern Africa millions of dollars are being provided for food emergency assistance to an estimated 14 million people facing acute food insecurity, as a result of political, economic and climatic factors"*

Macgregor also highlighted another widespread international failure, the lack of integration of disaster risk reduction within development planning.

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Fig.3 - THE DISASTER MANAGEMENT TRIANGLE

"… securing comparable financial resources for prevention and mitigation is difficult, as risk reduction principles are not sufficiently incorporated into developmental plans or programmes".

Macgregor 2004

A further problem with the lack of integration is that relief managers may be oblivious to the reality that some of the decisions they make in the first days following a disaster can have long term consequences for recovery operations. Also the community involved in emergency management need to be much more closely linked with risk reduction in order to form vital links between the observation of damage that is the remit of emergency staff and the development of measures to reduce such damage in the future.

The second level of integration is necessary between planning and decision making at both the centre and at local levels. In recent years the emphasis on community based actions has been accompanied with a 'bottom-up' approach to disaster planning. However this requires a parallel, and fully integrated national disaster management system. Centralised systems will inevitably be 'top-down', with resources flowing from the centre to the local level. Community Based Disaster Management requires a strong political will that will drive the national policy to make actions on the ground take place and fill the gap between communities and governments.

**The CHALLENGE is how to fully integrate the elements of disaster management that are frequently totally separate entities.
In addition the CHALLENGE is to effectively integrate the 'top-down' and localised 'bottom-up' planning systems.**

6. Protecting Critical Facilities within Communities

A significant trend within the past decade has been the focus on reducing risks to buildings and infrastructure that are regarded as being of special importance for a given community. This process mainly occurs at national levels of disaster planning where key resources such as critical infrastructure, buildings of multiple assembly, schools, medical facilities, communications facilities, airports etc. are protected to higher levels of safety than say domestic buildings with a single family occupation.

The rationale for this approach is based on the political awareness that while it is not economically possible to make **all** buildings and infrastructure safe, it is possible for even the poorest of societies to make their critical facilities safe.

Now the process is underway at community levels with particular focus on the protection of school buildings. Active programmes are in place in Nepal, India, the Caribbean, and Iran etc. School buildings are regarded as critical facilities for four vital reasons:
1. They are multiple occupation buildings;
2. They serve a number of community functions;
3. They can fulfil vital emergency functions following disasters

4. They house the future of any community with their lives ahead of them

The protection of school buildings is particularly important in relation to earthquake risk since unlike floods; volcanic eruptions and wind storms, there are no warnings of impending disaster available, (other than possible fore-shocks. Thus an orderly evacuation before a disaster is not possible and the best way to protect the occupants of schools from earthquake impact is through safe structural design as the school is built or through a strengthening programme (retrofitting)

The CHALLENGE is how to expand school safety programmes to all communities, say within a specific time frame of perhaps no more than ten years. A further CHALLENGE will be to build into school building safety programmes an additional component to educate the children in ways to reduce disaster threats.

(see the above Issue and Challenge 'Public Learning')

7. Performance Standards

Within the past decade there has been the growth of standards, indicators and performance targets. 'The SPHERE Standards and the 'Code of Conduct' have provided effective examples of good practice in Disaster Management Castellanos notes the rationale that gave rise to this widely accepted standard:

> *The "Code of Conduct" for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations in disaster relief seeks to guard our standards of behavior. It is not about operational details, rather, it seeks to maintain the high standards of independence, effectiveness and impact to everyone aspires. It is a voluntary code, enforced by the will of organizations accepting it to maintain the standards laid down in the Code. To date 227 organizations had signed up to the Code.*

Castellanos 2004

The CHALLENGE is that in order to secure donor money these targets are moving from being discretionary to obligatory, and this places at risk the important process of 'self assessment' . The challenge is not to lose without trace this concept of 'self-learning', rather to determine how to ensure it remains and gains strength?

The underlying CHALLENGE is how to maintain a balance between control and trust? This dilemma can be visually represented as a balancing act where the more control is exercised by authorities the less trust is placed in individual persons and agencies to use their own professional standards. *(See Fig. 4.)*
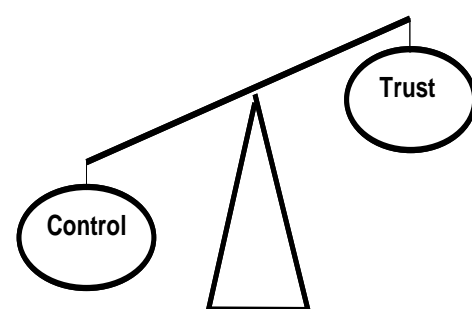

Fig 4 - THE BALANCING ACT BETWEEN CONTROL AND TRUST, HANDY 1995

WEAKNESSES OF COMMUNITY RISK REDUCTION

8. Sharing Knowledge

A paradox was noted: at present the communication of information and knowledge never been easier to achieve due to developments in IT and yet

despite such rapid advances in technology that are becoming more evident within communities, knowledge now has to be 'gained' rather than be smoothly passed from one person to another.

The CHALLENGE is to determine for any given context the most effective way, (or ways) to transfer and apply useful and usable knowledge to reduce risks through the Internet, local training, posters, TV and radio programmes and school curricula

9. Addressing small-scale disasters

A key indicator of the way the donor agencies have set the past agenda for disaster assistance can be observed in the way they have focussed their energy and resources on large scale disaster events that grab the headlines of the media in their own countries, rather than to address smaller community level disaster events.

This focus on major events is logical at the international level for obvious logistical reasons 'local problems need local solutions'. However, the preoccupation with mega disasters of the international humanitarian community can also be observed in National Disaster Planning and Management with the consequent neglect, or lack of general awareness of the overall significance of small scale events that cumulatively add up to major threats to lives, livelihoods and property.

These small scale events are in two categories. First 'everyday risks' that are symptoms of poverty such as a lack of education, inadequate clean water supply or sanitation, and health insecurity. Secondly there are micro-level natural and human made threats such as village fires, house subsidence, localised tornado impact or a collision of two buses with vehicles falling into the ditches beside road embankments. Such everyday risks, in both categories need to be reduced through either community level risk reduction to address, for example, road safety or development programmes to address, for example, the lack of opportunities for primary education for girls.

Helen Macgregor has observed that in South Africa:

> *"…there is a recognition that the number of small and medium sized disaster incidents are increasing. In the MANDISA database [1] (Mapping and Monitoring of Disaster Incidents in South Africa) over 12500 incidents were recorded for the Cape Town metropole between 1990 and 1999, with a high percentage of single dwelling fires in informal settlements and only six declared disasters. This illustrates the reality of 'everyday risk', which is reflected in disaster losses triggered by small and medium scale recurrent. Given a disaster risk profile characterized by a high frequency of small and medium scale events, it is clear that risk reduction efforts should focus on building the resilience at a community and households level.*

Macgregor 2004

To secure this resilience to enable communities to 'bounce back' and thus reduce the consequences of disaster impact, detailed, up to date preparedness plans need to be in place to improve emergency response to local disasters.

[1] MANDISA was conceptualized and developed by the Disaster Mitigation for Sustainable Livelihoods Programme (DiMP), UCT in cooperation with Afrigis.

This requires local disaster planning in order to identify local resources for emergency management.

The UNDP Global Report: '*Reducing Disaster Risk, A Challenge for Development*' published in 2004 is probably the first UN publication to highlight the issue of small scale disasters and their massive collective impact that may inhibit the development of sustainable livelihoods. The UNDP report usefully disaggregates the composition of a typical major disaster:

> *" Typically, an apparently simple, large-scale disaster will be composed of an array of smaller contrasting hazard types. Hurricanes, for example, can trigger local floods and landslides. Building disaster risk reduction into development planning means taking into account large and small hazards."*

<div align="right">UNDP 2004</div>

The CHALLENGE is to expand the focus of concern to look at disaster threats at the micro, household level as well as at the macro national level.
Community level disaster management is particularly appropriate to address small scale threats. As communities prepare for such events and seek ways to reduce such risks they will assist in planning for the less frequent large scale disaster events.
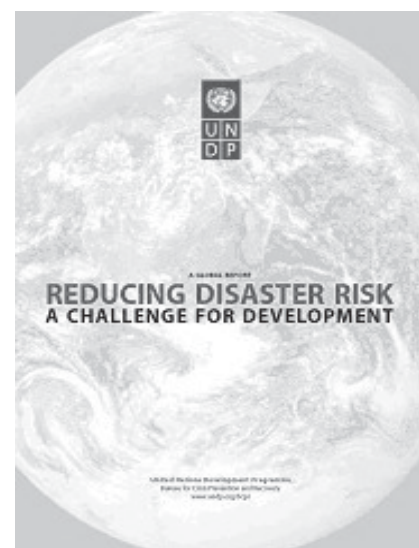
<div align="center">www.undp.org</div>

10. Fragile or Non–Existent Communities

Many of the concepts being developed for community disaster management programmes tend to assume that there are stable, cohesive communities with committed leaders able to manage or support such initiatives. However, it is clear that in many marginal urban areas there may be no community at all, just isolated families coming in or passing though without any vestige of a community spirit and without leadership. For example in certain areas of South London where there is a high proportion of immigrant families, the average rate of residence for the entire community is only six months.

It may be helpful to relate this challenge of how to communicate with fragile or non-existent communities to a specific location, slum communities in India, a country that contains 70 percent of the world population. In 2004 seven out of ten Indians live in rural areas leaving three out of ten in urban areas. And within these overcrowded towns and cities at least a third of the urban population inhabit slums. These slums are expanding at a totally uncontrolled and unprecedented growth rate of 10 percent per annum. Thus, stated in rather graphic and almost terrifying terms the entire slum population of India will double in just ten years time. <div align="right">Parikh 2004</div>

In 1980 the slum population of Mumbai (Bombay) had reached a total of 45% of the city, but by 2004 it has almost reached 66% and it is projected that in just 30 years time, in 2034, 90% of the entire city will be made up of slums. The overall population growth rate of Mumbai has been as dramatic as any global city. In 1996 the urban population was 15.7 million, with a projection that it will reach 26.2 million by 2015 with about 24 million of the urban population 'living' in a vast sea of overcrowded, and highly vulnerable slums. <div align="right">Wisner 2003</div>

These projections inevitably have major implications for any hazard prone city such as Mumbai . In addition to all the environmental health threats that affect all slum areas, the city is prone to three severe hazard threats: earthquake, flood and cyclone threats. The Mumbai Disaster Plan revealed extensive areas of acute vulnerability, particularly in the low-lying slum areas of the city. At a conference in 1998 in Mumbai the city authorities admitted that they did not possess an effective cyclone evacuation plan, given the vast number of people needing to be moved, the lack of transportation to move vulnerable families and the lack of safe places to which people could be relocated.

The population projections based on past population expansion in urban areas now indicate that in sixteen years time in 2020 the world slum population will be around 1,500 million. Thus there is a minimal expectation that one of the UN Millennium Goals set in 2000, 'to improve the quality of life of 100 million slum dwellers by 2020' stands the faintest chance of being realised.

The CHALLENGE is to devise innovative community based disaster management programmes that will be effective in these complex and demanding marginal conditions. This question raises another critical issue. Is it possible in such conditions to start by *building* a community that can work together constructively as a cohesive unit before even contemplating the development of resilient disaster management programmes.

The CHALLENGE is to devise ways to work within such fragile and volatile environments that are made up of individuals who are unlikely to have had time to develop a community concern, or even knowledge of their neighbours. In such places this lack of community spirit may prove to be one of their most critical vulnerabilities.

11. Mobilising Communities

We have heard reports of well designed programmes where certain key ingredients are functioning and 'in place': good technical advice, adequate financial resources, and government approval, yet they failed on one critical count. This was the absence of a mobilised community, or of committed leadership prepared to invest in the project and maintain it over time.

Participants to the consultation heard Castellanos discuss in some detail the problem in securing high levels of community mobilisation. He noted that a lack of motivation in communities may be traced right back to national policy to the participation of communities in decision making:

> *"Active participation in the day-to-day development of countries sometimes forms part of local and national government policy, but community participation and integration in the development of policy, is something that is required in the long term. Generally speaking, in most of the countries in the Americas and the Caribbean, there is little community organization and participation in decision making and policy. This is because there is a breakdown of societies coupled with cultural and educational impoverishment that often goes hand in hand with economic exclusion."*

He then addressed the issue of 'exclusion' and how to mobilise excluded groups to become actively involved:

> *"…the question that we constantly face is how do we get the "excluded" to participate more? Therein might also lay the answer that we are looking for because if we take the example of the "Minga" – the solidarity offered is solidarity that grows and this leads to inter-dependency, participation and trust, which are all substantial elements for success".*

Castellanos proposed an approach that encompassed integration, participation and awareness building. He suggested that these three concepts need to become:

> *"…the instruments towards ownership and empowerment at the community level, while incentives towards sustainable risk reduction practices by communities, must be incorporated into the disaster management strategy in the government local or national master plan. disaster master plans with risk reductions should become the heart of the country's development strategy"*
>
> Castellanos 2004

Fig 4 - THE CHANGE-OVER OF RESPONSIBILITY FOR PROJECT MANAGEMENT

(Graph based on a model presented to the participants by Zenaida Delica)

Participants were shown a graph that indicated the gradual development of community 'ownership' as the role of the external agency support declined.

This graph is an optimistic description of a change over of 'ownership' However, this ideal pattern may not occur for various reasons that can include community apathy or project leaders being unwilling to share authority. This is an area where 'tokenism' can loom very large. Most practitioners working for some years in the development or disaster management field will have experienced officials, (or perhaps even ourselves) exhorting the values and virtues of participative management in order to mobilise unmotivated communities, while at the same time resorting to a decidedly heavy handed top-down approach. These approaches can occur in some unlikely places and persons as a result of hypocritical or paternalistic attitudes. Alternatively, a top-down approach may grow from acute frustration with the lack of a community's desire to take responsibility or accept ownership of 'their' project and the need to make decisions to enable projects to materialise.

The importance of participatory decision making was stressed throughout the consultation. Castellanos reminded us of the particular importance that :

> *"…should be given to a process where all people living in a community can participate and it must relate to the participants problems or it should increase their awareness, so it's got to be specific. Secondly, it must reflect the reality that the community is experiencing. So it's got to be anchored in their own experience. It must be dynamic: that people should feel motivated to participate"*

This is the ideal, but the concept of participatory decision making has its enemies from officials with entrenched convictions that they must exercise authority. In my summary given at the conclusion of this session I shared a joke with my colleagues, (rarely a wise idea in an international gathering!) A colleague working in disaster management in Colombia once told me that in his country the verb 'To Participate' runs on the following cynical lines:
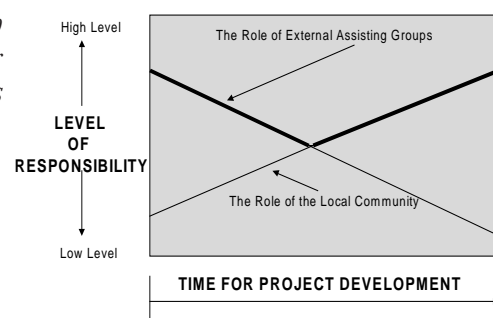
" You will participate;
He will participate;
She will participate;
We will participate;
They will all participate;
Everyone will participate, but…

I will always decide…"

The CHALLENGE is to better understand community dynamics and community leadership in order mobilise individuals as well as communities in an effective manner so that they become a key active stakeholder in projects to reduce disaster risks. Therefore assisting groups need to enter a project with the clear aim of gradually reducing their level of leadership and responsibility as the local community expands to assume such roles *(as indicated on Fig. 4)*

The CHALLENGE (in the proposal of Xavier Castellanos**) is to develop instruments that will promote ownership and empowerment at the community level. To achieve this aim incentives will be needed to promote sustainable risk reduction practices by communities, and these must be incorporated into the disaster management strategy in the government local or national master plan.**

12. Coping with the Complexity of Risk Reduction

Experience is suggesting that to implement risk reduction measures is a complex inter and multi-disciplinary process where there are a demanding set of pre-requisites to secure.

Within the earthquake engineering community the following list of requirements has been proposed:

Effective action to reduce Disaster Risks only takes place when:
- The problem to be addressed is recognised and is well defined;
- There is a belief that something politically acceptable can be done;
- There is a technical and social solution which policy makers regard as practical and feasible;
- There is a group of energetic and well informed policy advocates;
- There is 'window of opportunity', such as the aftermath of a major disaster, to introduce change, such as new legislation;
- The safety measures do not impose severe social and environmental costs on the affected community;
- The affected community are fully involved in the entire process.

Davis 2002

The CHALLENGE is to recognise the technical, social, economic and political demands of risk reduction and to seek to build up a 'critical mass' of concerned persons to develop such programmes.

The CHALLENGE is also to avoid 'donor driven' projects where safety measures are developed and implemented with minimal involvement of the recipient community.

CONCLUSION

These twelve challenges constitute a formidable agenda for the expanding community of concerned individuals and agencies who are seeking to improve disaster management, in all three of its elements: Risk Reduction, Emergency Management and Recovery Management. However it is possible to draw encouragement from what is currently being undertaken at the community level since this scale and diversity of activity could never have been envisaged a decade ago.

One of the participants in this consultation expressed the hope that decisions should be made by the political leaders who want to make this world a disaster-free society, enlightened decision makers who believe that this aim is not a luxury but the norm that all societies should expect.

Predictably there was unanimity concerning the ingredients of effective community action. These included the need to develop local capacities, to encourage community decision making, for local groups to identify their own needs and to identify incentives that can build and sustain motivation at the community level.

The 'pulse' of the consultation can be gathered from the keywords that were frequently used . Most were *'positive'* expressions:
- **'Community'**, but precisely what do we mean by the word?
- **'Sustainability'**, we grappled with the need to make certain that risk reduction would take root within vulnerable societies;
- **'Resilience',** this was a usefully active word with associations of absorbing shocks and bouncing back rapidly
- **'Participation'**, we all recognised its importance but were aware that it remains for many communities a remote dream given centralised governmental decision making;
- **'Stakeholders',** was a useful way to recognise the multiple players and owners of a given project;
- **'Building Capacity'**, became a key concept, but we were less clear as to how to achieve this goal;
- **'Protection of Livelihoods',** was regarded as a vital way to help communities cope with disasters and reduce their risks;
- **'Integration',** was a key theme with varied applications that included the 'Integration of Local Government with Local NGOs', the 'Integration of Risk Reduction measures into Development Planning and Practice' and the 'The Integration of Small Scale Disaster Risks with Big Scale Disaster Risks' . This was a useful concept that widened our concept of a disaster down to the individual household level.
- **'Accountability',** was emphasised as a vital relationship between those who help and those who are receiving it.

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The only *'negative'* word that appeared throughout all presentations and discussions was:

- **'Vulnerability',** was mainly considered in relation to the exposure of individual people and their communities. However, we recognised the need to widen vulnerability assessment to include its wider application to Buildings and Infrastructure, Economies, the Environment etc.

This consultation confirmed that in Kobe next year it will be possible to 'celebrate' significant and solid progress since the Yokohama World Conference in 1994. Yet the participants in this meeting were not complacent. Every person round the conference table was well aware that the positive examples of progress we can identify from our respective countries alas remain far below what is needed in responding to the challenge of escalating global vulnerability. This was aptly described in our meeting as an attempt to reach a rapidly 'moving target', as risks multiply within an increasingly dangerous, overcrowded and urbanising world.

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APPENDIX

Special Reports on Iran-Bam Earthquake

The special reports were presented by Mr. Fukasawa and Mr. Murai regarding the recent earthquake that occurred in the city of Bam in Iran. The abridged version of the special reports have been included in the Proceedings to shed light on the recent incident and its update of recovery efforts.

List of Participants

Newspaper Coverage

Symposium Photos

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Mr. Fukasawa began his career with the Ministry of Transportation upon graduating from the Graduate School of Science and Engineering, Tokyo Institute of Technology. Prior to the current position at DRI, his previous experiences include working for the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) in Geneva, and Ministry of Transportation in Japan.

After the earthquake that took place on 26 December 2003 in Bam, Hyogo Prefecture dispatched a mission 10-19 January 2004. The earthquake was rather small, but the city was almost completely destroyed. It was not only the dried-mud brick houses but also steel buildings that were destroyed through this earthquake. Schools and hospitals were destroyed. Therefore, one can imagine what the effects of earthquake would likely be if it were to occur even in a modern city such as Tehran.

As much as the buildings have been destroyed, people's livelihoods have also been heavily affected. As people may be aware, Bam is known for its production of dates from palm trees. This production is one of Bam's main sources of income. However, due to the earthquake the refrigeration system has been destroyed, hence, gravely affecting even the livelihood of these people. If the refrigeration system is not recovered by June or July, their effort throughout the year in collecting the dates would have been wasted in vain.

The first and foremost problems that need to be addressed are the creation of shelters and cleanup of the massive debris. Relevant organizations and government offices for reconstruction were starting to take actions and make decisions during our visit. It seems that, from my perspective, community-based disaster management and assistance from economic development perspective to be the most appropriate and effective form of assistance. I would like for this Bam experience and lessons to be disseminated to the rest of Iran as a nation that faces severe earthquakes once every decade or so.

Therefore, a good capacity building and information dissemination activities would be appropriate to implement as the next step. Also community's livelihood support such as palm tree re-production could be another effective effort that we could do for assistance. In doing so, I would like to reflect on the project that UNCRD was involved in Gujarat, India, because it touches upon the very issues pertinent to Bam. Therefore, I would like to collaborate with UNCRD to implement similar activities in Bam. Also, we could assist with JICA's educational programme on disaster management so that such knowledge could be disseminated not only in Bam but in other parts of the country.

Citizens towards Overseas Disaster Emergency (CODE) was established in the aftermath of the Great Hanshin Awaji Earthquake. After 1995, CODE has been involved in 30 incidents of natural and man-made disasters all over the world.

Recently, people in Bam tremendously suffered another incident of earthquake. The message that I want to emphasize today is that people die when buildings collapse: this is a simple law of physics. I cannot emphasize strongly enough that it is extremely important that buildings are constructed in a way to resist earthquakes. In the case of Bam, it is my understanding that not only the adobe houses were destroyed this time but also many modern buildings. In fact, many other types of buildings were also destroyed. This is because they were not built to resist earthquakes, even though constructing earthquake resilient buildings is not so difficult a job. Therefore, I believe that building a culture of construction for earthquake-resilient buildings is what needs to be echoed time and time again and acted upon.

As for the recovery process, a starting point is to acknowledge that this city is a major producer of dates in the world market. If water could be secured before summer time, there would be a great chance that the livelihood of the people could be secured. In addition, this would lead to the protection of Bam's tradition and traditional architecture of Bam, nearly 4,000 years old according to experts. Also, providing shelters is another very important element in the recovery process, to provide shelters that are earthquake resistant.

From this incident, I would like for people to view the victims not as numbers for body count but as humans who lived. The number of casualties is not an element for record keeping. In an earthquake, a person loses multiple members of his/her family. Now this person must face such reality. The reality of loss may be a severe way of thinking, but a necessary step in achieving the recovery process. Therefore, I urge all of you to get involved in disaster management so that the 40,000 lives that were lost were not lost in vain.

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Mr. Murai has been actively involved in the field of disaster mitigation since the occurrence of the Great Hnashin-Awaji Earthquake in 1995. Since then, Mr. Murai has traveled around the world to share his reconstruction experience of Kobe, in hopes for informing other disaster-hit nations and cities about the recovery process that may be useful.

Special Reports on Iran-Bam Earthquake

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教訓、防災に生かす

「神戸参考に」決意新た

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震災直後の街並みを再現したジオラマを興味深げに見学するシンポジウムの参加者

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「バングラデシュも対策不可欠」

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井戸知事（右）と会談するイウシュフ・バングラデシュ防災大臣

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身近な防災の大切さ実感

国際シンポ

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貧困と災害 悪循環断つ
バングラデシュ
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