

# CMDRR CONCEPTS, PRINCIPLES AND PRACTICES

Module 1

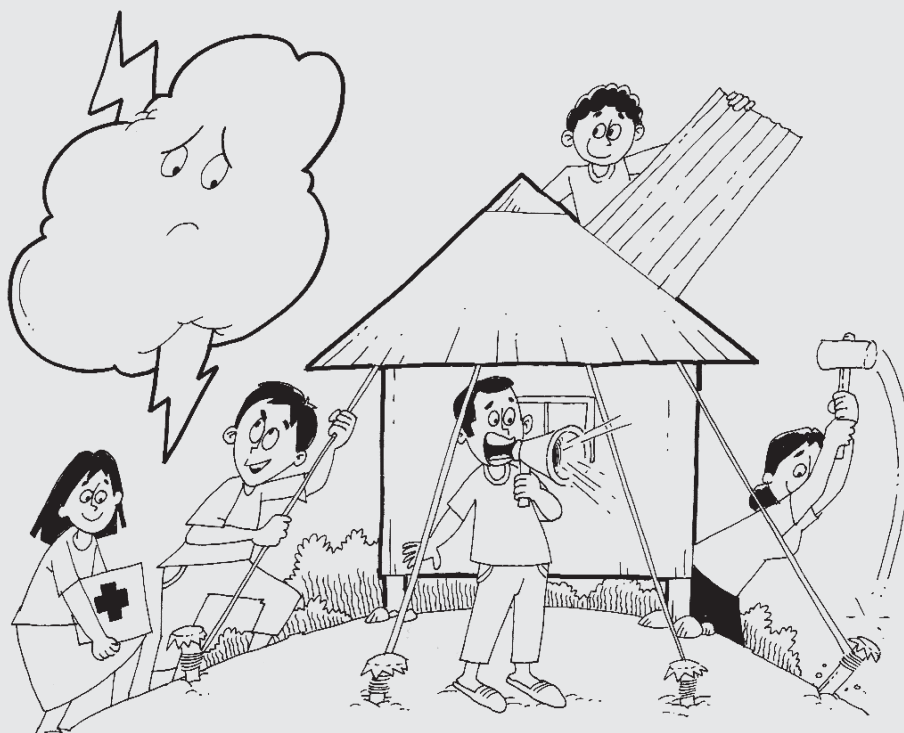
## **BUILDING RESILIENT COMMUNITIES**

A training manual on Community Managed Disaster Risk Reduction



## **BUILDING RESILIENT COMMUNITIES**

A training manual on Community Managed Disaster Risk Reduction



# **CMDRR CONCEPTS, PRINCIPLES AND PRACTICES**

Module 1

Published in the Philippines in 2013 by the International Institute of Rural Reconstruction and Cordaid.

ISBN 1-930261-35-7

This publication has no copyright and we encourage the use, translation, adaptation and copying of materials. Acknowledgements and citation will be highly appreciated.

Correct citation: IIRR, Cordaid. 2013. Building resilient communities. A training manual on community managed disaster risk reduction, Philippines.

For further information, please contact:

**Cordaid**

Postbus 16440  
2500 BK Den Haag  
The Netherlands  
cordaid@cordaid.nl  
www.cordaid.org

**International Institute of Rural Reconstruction**

Y.C. James Yen Center  
Silang, Cavite 4118  
Philippines  
information@iirr.org  
www.iirr.org

Artwork : Ariel Lucerna  
Layout : Orange and Yellow Enterprise  
Cover Design : Cordaid

Printed in the Philippines

# CONTENTS

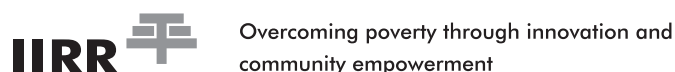
Acknowledgements	iv
Acronyms	v
User's Guide	vi
The CMDRR training course	viii

## Module 1: CMDRR Concepts, Principles and Practices

Session 1. Disaster and Development: Reflections from the ground	3
Session 2. Definition of terms	9
Session 3. Evolution of disaster risk reduction	19
Session 4. Resilience: Community perspective	33
Session 5. Linking ecosystems management and climate to disaster risk reduction	43
Session 6. Externally driven DRR and CMDRR	55
Session 7. CMDRR method and process	63
 Annex 1: Disaster Crunch Model	 94
Annex 2: Introducing Climate Change	95
Annex 3: Ecosystem Based Approaches for Disaster Risk Reduction	97

# ACKNOWLEDGEMENTS

The writeshop and production of this training manual were supported by Cordaid and IIRR.



Cordaid and IIRR also thank Caritas Germany for their financial support.

Sincere thanks also to:

- The members of the steering committee.
- The writeshop participants, consultants and other contributors: see list of participants in CMDRR Training Design and Implementation annex.
- Rusty Biñas, Cordaid Global Advisor for Disaster Risk Reduction and Wilson Barbon, IIRR Regional Center for Asia Program Specialist for DRR and CCA.
- The staff of Cordaid, IIRR Regional Center for Asia and the Yen Center.
- The production team including artist, graphic designers, editors.
- And the many communities, local people, extension workers, consultants, and NGO staff, whose knowledge and experiences are reflected in this book and have enriched the work in building resilient communities.

# ACRONYMS

CO	Community Organization
CSO	Civil society organization
DM	Disaster Management
DRC	Disaster Resilient Community
DRR	Disaster Risk Reduction
CMDRR	Community Managed Disaster Risk Reduction
CMDANA	Community-managed Damage Assessment and Needs Analysis
CM-EWS	Community-managed Early Warning System
CCA	Climate Change Adaptation
CERT	Community Emergency Response Team
EMR	Ecosystem Management and Restoration
GIS	Geographical Information Systems
HFA	Hyogo Framework for Action
IPCC	Intergovernmental Panel on Climate Change
LGU	Local Government Unit
MEA	Millennium Ecosystem Assessment
NAPA	National Adaptation Plans of Action
NGO	Non-government organization
PDRA	Participatory Disaster Risk Assessment
PLA	Participatory Learning and Action
PMEL	Participatory Monitoring Evaluation and Learning
PPMEL	Participatory Planning, Monitoring, Evaluation and Learning
PRA	Participatory Rural Appraisal
UNFCCC	United Nations Convention on Climate Change
UNISDR	United Nations International Strategy for Disaster Risk Reduction
WASH	Water, Sanitation and Hygiene

# USER'S GUIDE

This training manual and resource book provides trainers and practitioners of Community Managed Disaster Risk Reduction (CMDRR) with a comprehensive guide and reference materials to conduct a basic two-week course on CMDRR. It helps guide communities in implementing the various stages, steps and activities constituting the processes in developing local capacity for establishing CMDRR programs.

This manual is conveniently divided into four booklets:

CMDRR Training, Design and Implementation

1. Module 1: CMDRR Concepts, Principles and Practices
2. Module 2: Facilitating CMDRR Methods and Processes
3. Module 3: Sustaining CMDRR

CMDRR Training, Design and Implementation contains introductory and closing sessions of the CMDRR training course, the participants' action planning and training evaluation while Modules 1-3 focus on the principles and content of CMDRR.

The manual provides readers with a basic understanding of the CMDRR framework and methodology. It also provides users a wide array of participatory and interactive tools for undertaking the various processes in CMDRR. The modules include session guides for various topics in a basic training course on CMDRR. The session guides have a set of procedures consisting of structured learning exercises and activities designed according to the purpose and objectives of the topic of the session. It also contains useful and practical reference materials and hand-outs as attachments to the session guides. While the training tools in the session guides provide specific instructions for use in CMDRR training, we also encourage finding creative and innovative ways of adapting these tools to their own culture, contexts and particular needs.



*Hazie, our CMDRR “mascot” appears in various small illustrations as an icon. These icons refer to a particular section and use.*



## **Notes to facilitator**

are helpful tips that guide facilitators in conducting specific activities and sessions successfully.



## **Handouts**

are to be photo copied and distributed to participants during the training session.



## **Suggested reading**

is a list of helpful books and publications that offer the facilitators deeper knowledge on the subject matter. These can also serve as references.



## **Case stories**

are real stories from the communities we work with or from partner NGOs and their communities. These stories are at times used in the activities and sessions and or serve as reference reading.



**Reading materials**

provide the facilitators a background on the specific topic being discussed. These materials are used as inputs during discussions. Some reading materials are also given out to participants.

**Materials for activity**

are materials facilitators need to prepare and at times reproduce to be used for a particular activity before the session starts.

Training is more effective if trainers build a lively and engaging learning atmosphere. In as much as we tried to include a variety of learning activities, we encourage the use of ice-breakers, visualization techniques, and group dynamics to complement the ones that are presented in the manual.

The modules in this training manual also serve as handy reference material for field coordinators facilitating CMDRR programs. Field workers can make use the CMDRR guide in facilitating field activities. We have also included case studies to illustrate the applicability of the various concepts, strategies, methods and tools. The case stories/studies highlight examples of good CMDRR practices which can be used in advocating CMDRR at various levels. Some also provide additional reference and reading materials for further understanding of topics related to DRR.

Reproduction of any portion of this training manual is allowed, so long as Cordaid and IIRR are acknowledged. Please also duly acknowledge the authors of the case studies and hand-outs.

# THE CMDRR TRAINING COURSE

Community-Managed Disaster Risk Reduction (CMDRR) refers to a process in which communities are actively engaged in the identification, analysis, monitoring and evaluation of the risks, with the aim of reducing people's disaster risk and enhancing their capacities. It places the communities at the heart of decision-making processes and in the management of disaster risk reduction measures.

Since the CMDRR paradigm warrants a facilitation role, the lack of capacity amongst development practitioners to play this role is a major constraint in the application of CMDRR concepts. IIRR regularly conducts the CMDRR training courses which usually run from 6 to a maximum of 12 days and has built an experiential base on CMDRR training. This manual is designed to enable trainers and development workers to use a CMDRR framework in their development and capacity building efforts. Below are the suggested course objectives and schedule. Organizations are encouraged to customize these objectives and schedule according to their needs as long as the essential concepts and principles such as the Four Minimums are included.

## Course Objectives

This course is designed to enhance the ability of community workers to facilitate the CMDRR process. At the end of this course, the participants should have:

1. Developed a shared understanding of the concepts, principles and practices of disaster risk reduction specially the Four Minimums of CMDRR;
2. Demonstrated the use of selected tools in facilitating the Four Minimums of the CMDRR process such as participatory disaster risk assessment (hazard, capacity and vulnerability assessment) and participatory planning, community organizing for CMDRR, monitoring, evaluation and learning (PPMEL);
3. Conducted hands-on participatory exercises on risk assessment and formulation of DRR measures at the community level;
4. Developed understanding of strategies towards sustaining CMDRR in a community;
5. Identified action points applicable in their working areas.

## Description of the booklets and course modules

**CMDRR Training, Design and Implementation** (Booklet 1). This booklet introduces the CMDRR training course. It discusses the suggested training objectives and design. It features the introductory session and activities to set the start of the training. This module also includes the Action Planning session and Course Synthesis and Evaluation for the last day of the training course. Participants develop an action plan based on the realities of the community, implemented in line with organizational, program or project thrusts.

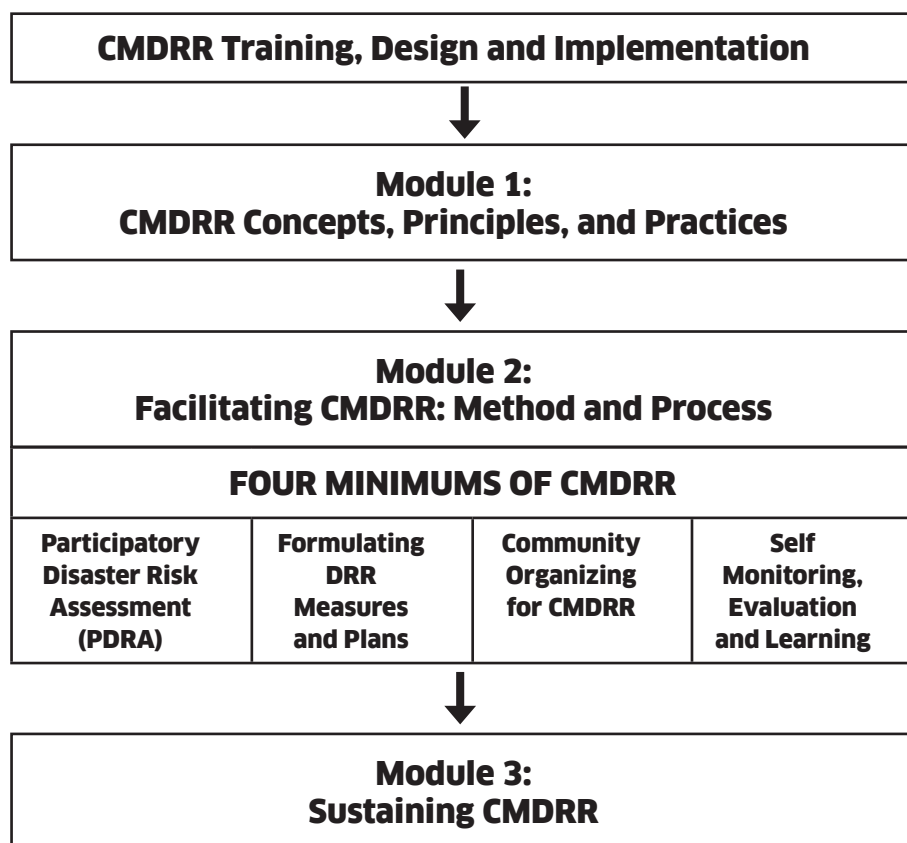
**Module 1: CMDRR Concepts, Principles and Practices** (Booklet 2). This module tackles the link between disaster and development and explains the concept, process and approach to CMDRR. It discusses the role of facilitation, clarifying basic conceptual foundations of both content and process. It also introduces the participants to the Four Minimums of CMDRR.

**Module 2: Facilitating CMDRR: Method and Process** (Booklet 3). This module allows the participants to learn more in detail the key elements in the CMDRR Four Minimums namely:

1. Participatory Disaster Risk Assessment (PDRA)
2. Development of DRR Measures
3. Organizational Mechanisms at the Community Level
4. Community-led Monitoring, Evaluation and Learning

The participants will learn and become skilled in the use of practical tools using Participatory Learning and Action (PLA) at the community level. They will also learn to look at and integrate gender within the CMDRR process. People's perceptions in risk assessments are also discussed.

**Module 3: Sustaining CMDRR** (Booklet 4). This module helps participants learn how to facilitate document and share CMDRR experiences to support policy advocacy, resource mobilization, and networking efforts. Participants will improve their understanding of ways to link community organizations with other potential actors active in disaster risk reduction and to access resources for and influence policies supportive of CMDRR. It engages the participants in learning the principles of good governance at the community level which is an important element of sustaining the CMDRR process and practice. Through sharing of experiences, participants will explore various strategies to integrate and/or mainstream CMDRR into development planning processes.





# 1

# MODULE ONE



## CMDRR CONCEPTS, PRINCIPLES AND PRACTICES

This module introduces the basic concepts and principles of disaster risk reduction with discussions on the link between disasters and development. There are also sessions to better understand what community resilience is and the role of ecosystems management and restoration, and climate change in building community resilience.

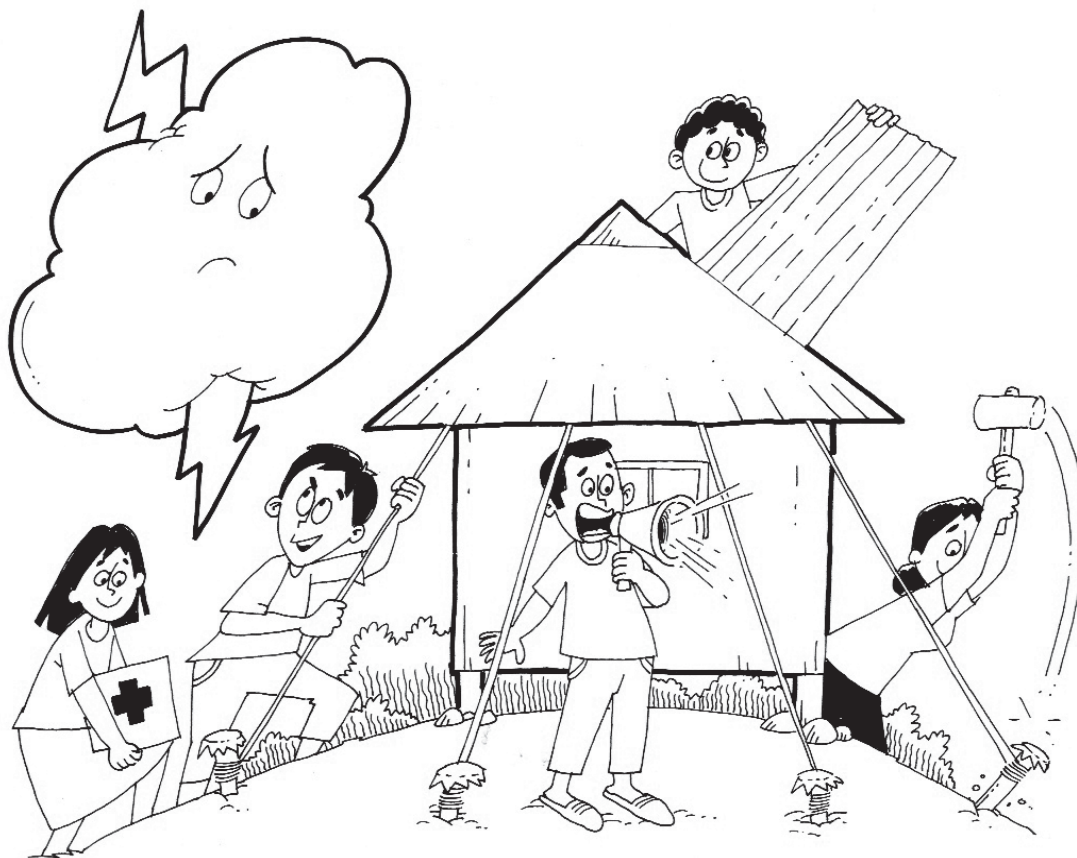


This module explains the concept, principles and practices CMDRR employs to achieve community resilience. It discusses the role and importance of facilitation and participation, clarifying basic conceptual foundations of both content and process of CMDRR.





# DISASTER AND DEVELOPMENT: REFLECTIONS FROM THE GROUND



**Duration:** 1 hour 30 minutes

## Description

Sharing of experiences by the participants will enable them to open up and recount what happened in their organization, communities and countries during a disaster event. The participants can then later relate the connection between disaster and development based on the responses of government, NGOs and other concerned sectors of society.

## Learning Outcomes

At end of the session, participants should be able to:

1. Articulate and examine observations, experiences and current approaches of their own organizations, communities and countries in responding to disasters.
2. Draw lessons from their own experiences.

### Learning aids and materials

- Attachment 1. Guide questions for the small group discussion on participants' experiences on disaster events.
- Attachment 2. Case Story - Groundwater arsenic poisoning in Bangladesh



## Procedure

### Activity 1. Small group discussion on actual experiences (50 minutes)

1. Divide the participants into groups of 4 or 5, according to geographical location.
2. Provide the discussion guide questions (Attachment 1).
3. Once participants have shared their group outputs, facilitator could ask:
  - Did recent disasters in your areas have something to do with the way development has been implemented?
  - Could disasters help us change the way we do development?
4. Summarize the lessons learned and relate them to the topic of the next session.

### Activity 2. (30 minutes)

1. Distribute the case story on groundwater arsenic poisoning in Bangladesh. (See Attachment 2. Handout Case Story)
2. After reading, discuss it with the participants.
3. Analyze the case using the following questions:
  1. How did the disaster described in the case affect development efforts in Bangladesh?
  2. What was the response of the community? External organizations? NGO? The government?

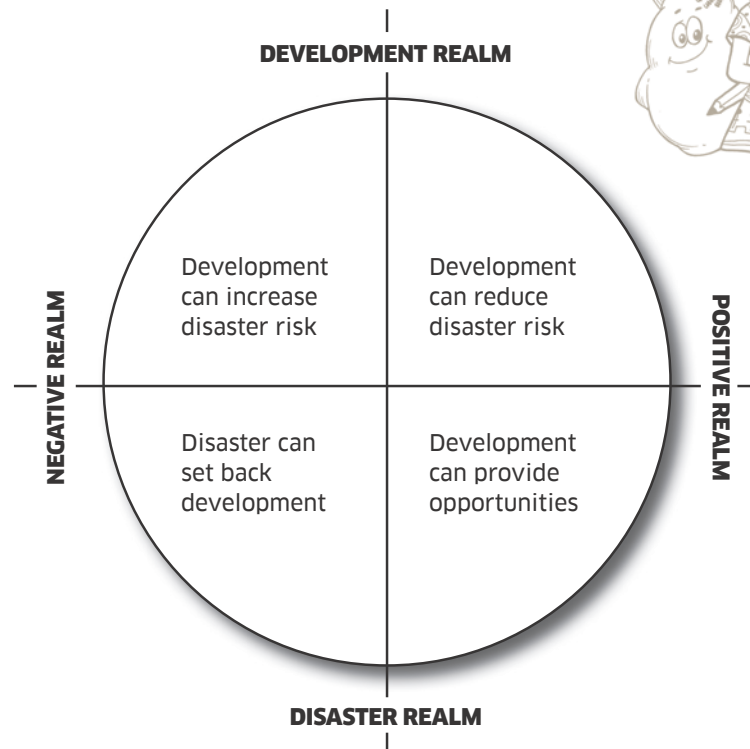
### Synthesis (10 minutes)

- Hazards can destroy the results or impacts of development initiatives but it can also create development opportunities. On the other hand, development projects can increase or decrease disaster risk.
- Our response to hazard and disaster events are based on our organization's assumptions about development and the underlying beliefs and principles behind its approach to development.
- It is important for organizations to consider the long-term effects of their work—positive or negative—to be able to thoroughly plan in advance for unexpected impacts related to a number of variables that could threaten the communities' development, thus avoid implementing "Disaster Risk Enhancing (DRE) measures".



### Note to facilitator

- The facilitator can use a case to illustrate the working assumptions behind every intervention.
- He or she can use the following illustration during the synthesis:



An alternative methodology is using a case that illustrates how development can increase risk.

### Suggested readings

Community Managed Disaster Risk Reduction: Training Resource Materials, printed by the International Institute of Rural Reconstruction (IIRR), Nairobi, Kenya, Aug. 7-18, 2006.

De Guzman E. Towards Total Disaster Risk Management Approach. United Nations Office for the Coordination of Humanitarian Affairs- Asian Disaster Response Unit.

Handbook for Estimating the Socio-Economic and Environmental Effects of Disasters. United Nations Economic Commission for Latin America and the Caribbean/ECLAC.

Lebel L., Nikitina E., Kotov V. and Manuta J. (in press). Reducing the risks of flood disaster: assessing institutionalized capacities and practices, in J. Birkmann, editor, Measuring vulnerability and coping capacity to hazards of natural origins: concepts and methods (in press). United Nations University, Tokyo, 2006.

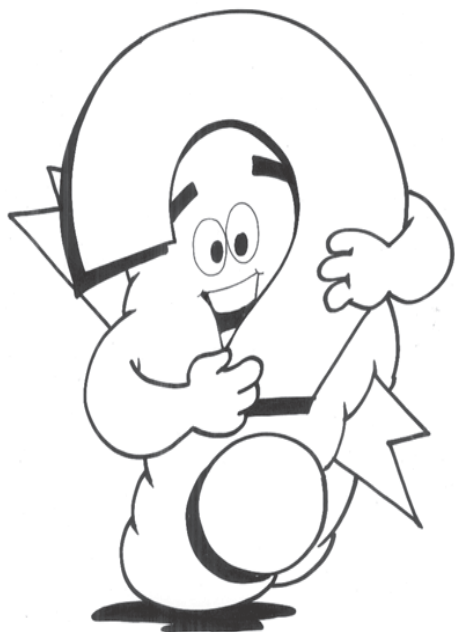
Lebel L., Khrutmuang S. and Manuta J. 2006. Tales from the Margins: small fishers in post tsunami Thailand. Disaster Prevention and Management Vol. 15 No. 1, 2006:124-134.

Manuta J. International Disaster Reduction Conference. Flood Disaster Risk Management in the Philippines and Thailand: An Institutional and Political Perspective. Davos, Switzerland, 2006.



## Attachment 1. Material for Activity 1

### Guide questions for the small group discussion on participants' experiences on disaster events



1. Think of a recent disaster that has happened to your community or country.
2. How did the disaster affect the development efforts of your organization, community and country?
3. What was the immediate response of the community, external organizations, NGOs and the government? In what way were these responses adequate or inadequate?
4. What lessons can we draw from your answers in the preceding questions in terms of the link between disaster and development?
5. Can you think of an example of a DRR intervention that after a few months or years has increased risk conditions? Meaning, despite the measure being conceived to address existing risks, it ended up putting more lives and assets at risk?

## Attachment 2. Handout/Material for Activity 2

### Case Story: Groundwater arsenic poisoning in Bangladesh



Water borne diseases such as diarrhea were prevalent in Bangladesh several decades ago due to drinking of untreated water. In the 1970s, UNICEF and some international donor agencies advised the Bangladesh government to tap groundwater for drinking purposes.

While the use of groundwater reduced the level of diarrhea, it actually increased the risk of arsenic poisoning, which led to arsenicosis, hyperpigmentation, gangrene and finally cancer. The latency time of cancer symptoms is 15-30 years depending on the water's arsenic content and period of ingestion. Arsenic-safe water is the only curative medicine for arsenic-related diseases at the primary stage.

The use of groundwater led to two unexpected issues, paving the way to disaster: (a) health risks, featuring high incidence of diseases; and (b) negative social implications.

Arsenic is a documented carcinogen and if people ingest arsenic contaminated drinking water for a long time, there is the possibility of non-malignant symptoms as well as different types of cancers. The local community, particularly the poor, were not aware of the dangers of arsenic poisoning. They actually thought well water was good, much better than the surface water, contaminated with arsenic or not. Other social problems also emerged. There was a tendency to ostracize people with visible symptoms of arsenic poisoning, particularly skin lesions or gangrene.

The Bangladesh government implemented policies in response to the health risks and hazards caused by arsenic contaminated drinking water. In 1997, it established the Bangladesh Arsenic Mitigation and Water Supply Project (BAMWSP). BAMWSP developed a program in 2004 for arsenic-safe water options, including rain water harvesting, deep tube wells, pond-sand-filters and dug wells.

In 2005, the options were assessed and one of them -- installing deep tube wells -- was banned by government until it could be proven that the arsenic-safe deep aquifer was protected by an impermeable layer. If the deep aquifer is ever contaminated with high levels of arsenic, it cannot produce arsenic-safe drinking water. But the other options are also not working.

Research on safe water options in Bangladesh is still ongoing and there is a debate on which technology is suitable and sustainable. It is uncertain if the low-cost technologies suitable for the rural poor is sustainable. The high-tech options applicable for towns and cities are, on the other hand, expensive and not all consumers are able or willing to pay the cost of arsenic-safe water. Meanwhile, there is no regular monitoring of drinking water quality.

There are around 80 million people in Bangladesh who are at risk. The government urgently needs to formulate a more effective program to save them from arsenic poisoning.

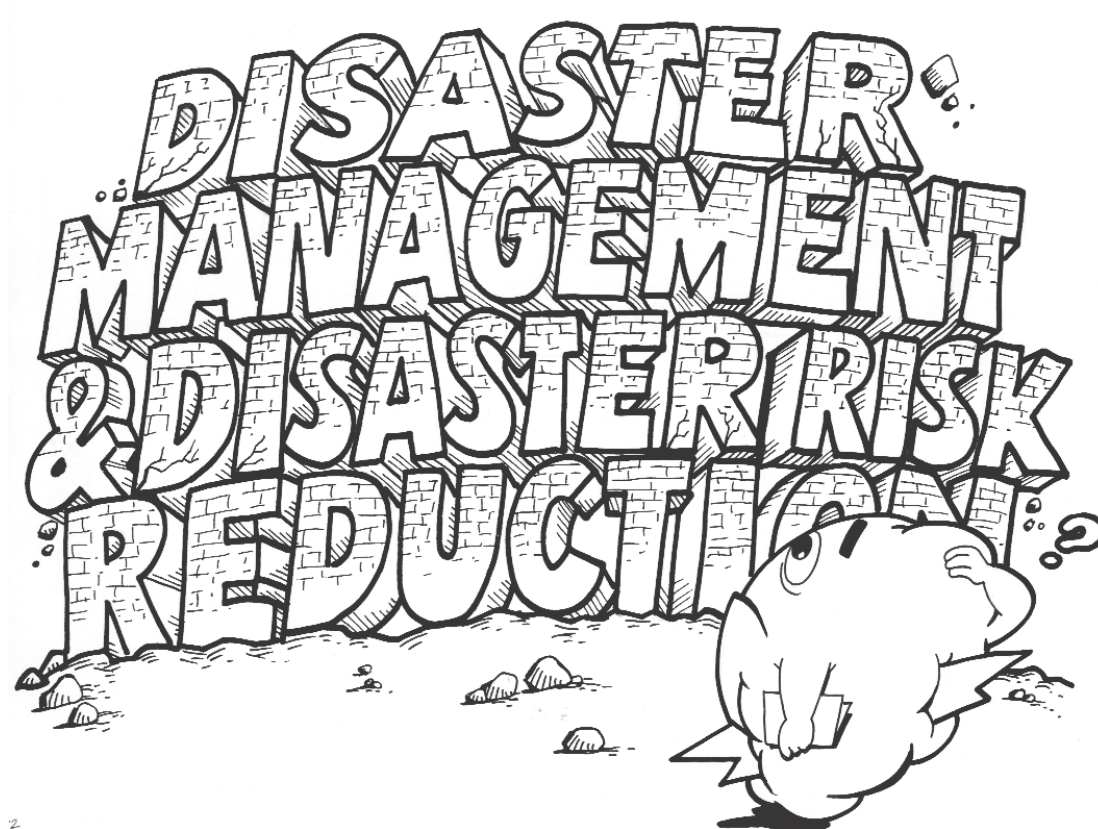
Source: <http://ihrrblog.org/2010/06/17/groundwater-arsenic-poisoning-in-bangladesh-an-interview-with-dr-manzurul-hassan/>

Other readings for this case story: Arsenic-safe deep tube well in Satkhira, Bangladesh (Manzurul Hassan)





## DEFINITION OF TERMS



2

**Duration:** 1 hour

### Description

Various terminologies in disaster risk reduction (DRR) have surfaced in recent years to convey the essence of different DRR concepts. Hence, standard definitions are needed to establish common understanding of the terms and concepts. This will enable participants to fully comprehend the succeeding discussions on Community Managed Disaster Risk Reduction (CMDRR).

### Learning Outcomes

At end of the session, the participants should be able to:

1. Explain, compare and/or interrelate key terminologies used in DRR
2. Differentiate between hazard and disaster and elaborate on the definitions of disaster management (DM) and DRR.





### Learning aids and materials

- A set of A4 papers containing DM/DRR terminologies
- Another set of A4 papers containing the corresponding definitions of the DM/DRR terminologies
- Attachment 1. Handout - Selected DM/DRR terminologies and definitions
- Attachment 2. Disaster happens when hazard event is beyond the community capacity to cope

## Procedure

### Activity 1. Matching game (50 minutes)

1. Distribute the two sets of A4 cards with the selected DRR terminologies and their definitions (See Attachment 1). Ask each person to look for the person bearing the card that matches his/her term or definition.
2. Ask the participants to tape on the board or spread on the floor the matched definitions and terminologies.
3. Ask the participants to review and explain the matches. Allow them to shift cards and correct their matches if needed.
4. Go through the terms together with the participants and explain the terms and definitions, praising each correct match. For mismatched terms, provide the correct definition and explain why. Participants must now agree on the definitions as these terms will be used throughout the training course.
5. Ask the participants the following guide questions and relate their answers to the definitions of hazard and disaster:
  - Is disaster natural or not?
  - How do we know if a community cannot cope with the effects of a hazard?
  - How do hazards progress into disaster?
  - Who declares a disaster?
6. Distribute the handouts to guide the participants.

### Synthesis (10 minutes)

- A hazard can either be man-made or natural and should not be treated as synonymous with disaster. A disaster occurs when a community cannot cope with the deleterious effects of a hazard. Therefore, a disaster is a social construct, always the consequence of human failure to plan well. In other words, a hazard event is a necessary but not sufficient condition for the occurrence of a disaster. For example, if a flood occurs in south Sudan but does not result in massive loss of lives and property, the flood is only a hazard event not a disaster.
- Oftentimes, government or external agents declare a disaster on behalf of communities without consulting them. Government declaration of disasters is also sometimes political.

It should be noted that if a community can cope with the effects of a hazard they will not seek external assistance. However, if they cannot cope, they will also let it be known right away. Therefore, the point of reference for declaring a disaster is the community.

Most of the time communities do not formally communicate their disaster situation. Instead, they exhibit actions that indicate they are not able to cope with the hazard—hence a state of disaster. These indications of inability to cope are enough basis for saying that the community already declared a state of disaster. This is different from the formal and public declaration of a state of disaster by government agencies.

#### Note to facilitator

- Participants can discuss in small groups of 3 or 4 the definitions that individuals got and agree on the concept that they refer to.



### Suggested readings

Community Managed Disaster Risk Reduction: Training Resource Materials, printed by the International Institute of Rural Reconstruction (IIRR), Nairobi, Kenya, Aug. 7-18, 2006.

De Guzman, E. M. Towards Total Disaster Risk Management Approach. United Nations Office for the Coordination of Humanitarian Affairs-Asian Disaster Response Unit.

Dombrowsky, W. R. “Again and again- Is disaster what we call a ‘disaster?’”

IPCC, 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp.

Terminology: Basic Terms of Disaster Risk Reduction. International Strategy for Disaster Reduction. <http://www.unisdr.org/eng/library/lib-terminology-eng.htm>.

UN-ISDR, 2009. 2009 UNISDR Terminology on Disaster Risk Reduction. Geneva, Switzerland. Available at: [www.preventionweb.net](http://www.preventionweb.net)



## Attachment 1. Materials for Activity 1

Definitions and terminologies should be cut separately for the activity.



### DM/DRR terminologies and definitions

Adaptive capacity	The combination of the strengths, attributes and resources available to an individual, community, society or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities. Source: IPCC, 2012
Capacities	Refers to individual and collective strength as well as the physical, social, economic and community resources that can be enhanced, mobilized and accessed by individuals and communities to reduce disaster risk. These include prevention, mitigation, “survivability” of the individual and readiness of the community.
Capacity building	Efforts aimed to develop human skills or societal infrastructures within a community that are needed to reduce the level of risk.
Climate change	A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties. The change persists for an extended period, typically decades or even longer. Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or land use. See also Climate variability and Detection and attribution.
Climate change adaptation	<p>The adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Source: UNISDR, 2009</p> <p>In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate. Source: IPCC, 2012</p>
Climate extreme (extreme weather or climate event)	The occurrence of a value of a weather or climate variable above (or below) a threshold value near the upper (or lower) ends of the range of observed values of the variable. For simplicity, both extreme weather events and extreme climate events are referred to collectively as “climate extremes.” Source: IPCC, 2012
Climate variability	Climate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate at all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability). See also Climate change.
Community	A community can be taken as a group that may share one or more things in common such as living in the same environment, or place of residence, disaster risk exposure, having been affected by a hazard event. Common problems, concerns, hopes and ways of behavior may also be shared. Although the community is not a homogeneous unit but a dynamic mix of different groups, interests and attitudes, the sharing of something in common gives a certain sense of belonging to each other.



Community Capacity Assessment	Assesses the community's individual and collective strength and the physical, social, economic and community resources that can be enhanced, mobilized and accessed by individuals and communities to reduce disaster risk. These include prevention, mitigation, individual capacity to survive or "survivability" and community readiness.
Community Hazard Assessment	Defines the threats and understands the nature and behavior of particular hazards. The assessment brings out information on the characteristics of hazards, specifically warning signs and signals, forewarning, speed of onset, frequency, period of occurrence and duration.
Community Managed Disaster Risk Reduction (CMDRR)	<p>A condition whereby a community systematically manages its disaster risk reduction measures towards becoming a safer and resilient community.</p> <p>Facilitating CMDRR is the how-to process of the community to get to the CMDRR state. It is sometimes done along with external actors.</p>
Community Risk Assessment	A process of determining the degree of risk of the element at risk through assessing and analyzing the characteristics of hazards, degree of vulnerability and capacity of the element at risk as well as the community to be able to survive and bounce back from the hazard event.
Community Vulnerability Assessment	<p>The process of estimating the degree of exposure or susceptibility of elements at risk in the community to various hazards.</p> <p>It identifies the degree of vulnerability of element at risk to the hazard. In CMDRR, after the risk assessment, there may be an element with a high degree of vulnerability but not necessarily a high degree of risk because of the significant capacity it enjoys.</p>
Coping capacity	<p>The ability of people, organizations, and systems, using available skills, resources, and opportunities, to address, manage, and overcome adverse conditions. Source: IPCC, 2012</p> <p>In the context of CMDRR, coping capacity refers to individual survivability, and the ability of elements at risk and community to bounce back.</p>
Disaster	The serious disruption of the functioning of society causing widespread human, material or environmental losses, which exceed the ability of the affected communities to cope using their own resources. It occurs when the negative effects of the hazards are not well-managed.
Disaster Preparedness	Involves measures taken in anticipation of a disaster to ensure that appropriate and effective actions are taken in the aftermath. Preparedness means attempting to limit the impact of a disaster by structuring the response and effecting a quick and orderly reaction to the disaster. Examples of preparedness measures are the formation and capability building of an organization to oversee and implement warning systems, evacuation, rescue and relief; formulation of a disaster implementing plan or a counter-disaster plan; warning systems; stockpiling of supplies for immediate mobilization; emergency communications; training of volunteers; community drills and simulation exercises; and public education and awareness.
Disaster Risk	The probability of meeting danger or suffering/harm or loss.





Disaster Risk Enhancing measures	DRR interventions intentionally designed to reduce risk though in the long term creating new risks or enhancing the existing ones.
Disaster Risk Management	The systematic process of using administrative decisions, organization, operational skills and capacities to implement policies, strategies and coping capacities of the society and communities to lessen the adverse impacts of natural hazards and related environmental and technological disasters.
Disaster Risk Reduction	A framework and tool that determines the degree of risk and describes measures to increase capacities and reduce hazard impact on the elements at risk so that disaster can be avoided.
Duration	The period of occurrence the hazard is felt, in terms of hours, days, weeks or months.
Early Warning	The provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response.
Ecosystem	A dynamic complex of plant, animal, and microorganism communities and their non-living environment interacting as a functional unit. <sup>1</sup>
Ecosystem services	The benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services such as nutrient cycling that maintain the conditions for life on Earth. The concept “ecosystem goods and services” is synonymous with ecosystem services. <sup>1</sup>
Ecosystem stability	An ecosystem is considered stable if it returns to its original state shortly after a perturbation (resilience), exhibits low temporal variability (constancy), or does not change dramatically in the face of a perturbation (resistance). Source: EcoMA
Elements at risk	<p>Element at risk is the subject (element) being exposed to harm or danger, e.g. people, crops, houses, critical facilities such as hospital, bridges, water reservoir, livelihood, etc.</p> <p>People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses. Source: UNISDR</p> <p>The presence of people, livelihoods, environmental services and resources, infrastructure, or economic, social and cultural assets in places that could be adversely affected. Source: IPCC 2012</p>
Emergency Management	The organization and management of resources and responsibilities for dealing with all aspects of emergencies, particularly preparedness, response and rehabilitation.
Emergency Response	Essential services and activities that are undertaken during hazard event to assist elements at risk to survive and bounce back. Examples: search and rescue; repair of critical facilities like bridges, power lines; provision of food and non-food relief; emergency health; psycho-social interventions; management of evacuation center; emergency operations center.

<sup>1</sup> Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-Being: Wetlands and Water Synthesis. World Resources Institute, Washington D.C.

Environmental degradation	The reduction of the capacity of the environment to meet social and ecological objectives and needs. Source: UNISDR
Environmental Management (and Restoration)	The sustainable use of ecosystems, aimed at enabling the environment to continuously provide natural goods and services to the communities, e.g. the provision of clean water and protection against strong winds, heavy rains, floods and storm surges.
Force	The strength or energy of any form (e.g water, rocks, soil, wind, fire, gases) that will hit a community through physical action or movement, triggered by a hazard event.
Forewarning	Time between warning and impact.
Frequency	Refers to how often a hazard occurs at a given location, e.g. seasonally, once a year or every five years.
Geographic Information Systems (GIS)	Analysis that combine relational databases with spatial interpretation and outputs often in form of maps. A more elaborate definition is that of computer programmes for capturing, storing, checking, integrating, analyzing and displaying data about the earth that is spatially referenced.
Geological Hazard	Natural earth processes or phenomena that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.
Hazard	<p>A potential event that could cause loss of life or damage to property or the environment.</p> <p>A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation... Source: UNISDR</p> <p>"... hazards of natural origin and related environmental and technological hazards and risks." Source: Hyogo Framework for Action</p> <p>The potential occurrence of a natural or human-induced physical event that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, and environmental resources. Source: IPCC 2012</p>
Hazard mitigation or mitigation	Covers measures that can be taken to minimize the destructive and disruptive effects of hazards and thus reduces its impact.
Hazard prevention or prevention	The activities designed to impede the occurrence of a hazard event and/or prevent such an occurrence from having harmful effects on communities and facilities.
Land use	The human use of land. Land use involves the management and modification of natural environment or wilderness into built environment such as fields, pastures, and settlements. It has also been defined as "the arrangements, activities and inputs people undertake in a certain land cover type to produce, change or maintain it". <sup>2</sup>

<sup>2</sup> IPCC Special Report on Land Use, Land-Use Change and Forestry.  
[http://www.grida.no/publications/other/ipcc%5Fsr/?src=/climate/ipcc/land\\_use/045.htm](http://www.grida.no/publications/other/ipcc%5Fsr/?src=/climate/ipcc/land_use/045.htm)





Period of occurrence	The particular time of year a hazard normally occurs.
Readiness	A state of preparedness of a group/community organization functioning with systems and structures that enable individuals to survive and bounce back.
Reconstruction	An action to repair or replace damaged dwellings and infrastructure with a stronger one and to set the economy back on course.
Recovery	Decisions and actions taken after a disaster/hazard event with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk.
Rehabilitation	Covers interventions to restore basic services and psycho-social services to facilitate recovery of the affected population. Examples are psychological support and assistance to victims to repair their dwellings; re-establishment of essential services such as community facilities, and revival of key economic and social activities.
Relief/Response	The provision of assistance or intervention during or immediately after a disaster/hazard event to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short- term, or protracted duration.
Resilience/ Resilient	<p>Resilience refers to the individual and community elements at risk being able to survive and bounce back from the hazard event using her or his capacity to go back to normal or better functioning in the society. It is the capacity of an individual and the community to get ready to bounce back from any eventualities and actively create possibilities to improve his or her condition towards full enjoyment of being an empowered human being and community.</p> <p>The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. Source: UNISDR</p> <p>The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions. Source: IPCC 2012</p> <p>Resilience is the ability of a system, community or society exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. Source: PFR Alliance</p>
Resilience building / strengthening;	Empowering communities to design and build the safest possible human development environment in a natural hazard context minimizing its disaster risk by maximizing the application of DRR measures. (Modified from Twigg, J. 2009. The characteristics of a Disaster Resilient Community. A guidance Note. Version 2. 2009.)
Speed of onset	Rapidity of arrival and impact of the hazard. We can distinguish between hazards that occur without almost any warning (earthquake) and a hazard that can be predicted three to four days in advance (typhoon) to a very slow-onset hazard like drought.



Survivability	To manage to stay alive or continue to exist, especially in hazard event.
Sustainability (Sustainable development)	<p>Sustainability: A characteristic or state whereby the needs of the present and local population can be met without compromising the ability of future generations or populations in other locations to meet their needs. Source: Eco MA</p> <p>Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own need. Source: IPCC 2012</p> <p>This definition coined by the 1987 Brundtland Commission is very succinct but it leaves unanswered many questions regarding the meaning of the word development and the social, economic and environmental processes involved. Disaster risk is associated with unsustainable elements of development such as environmental degradation, while conversely disaster risk reduction can contribute to the achievement of sustainable development, through reduced losses and improved development practices. Source: UNISDR (comment on the definition)</p>
Technological Hazards	Danger originating from technological or industrial accidents, dangerous procedures, infrastructure failures or certain human activities, which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.
Vulnerability	The degree to which elements at risk (area, people, physical structures or economic assets) are exposed to hazards that cause loss, injury or damage.
Warning	Signs and signals, including scientific and indigenous indicators, that a hazard is likely to happen.



## Attachment 2. Handout



### Disaster happens when the hazard event is beyond the community capacity to cope

Indicators on whether the community can cope or not are subjective and vary according to the level at which a disaster is declared. Nonetheless, we should use the community's indicators to determine the capacity to cope. Options within the community should be exhausted before turning to "outside" help.

A community should be the one to declare a disaster; the government's role is to help assess the community's ability to cope so that it sees the type of intervention needed. The current practice, however, is that once there is a hazard, the government declares it a disaster even before assessing whether the community can or cannot cope. Even development and NGOs come in to help without necessarily assessing the capacity of communities to cope. Disasters are local and not global because various hazards affect communities differently and different communities have different coping mechanisms.

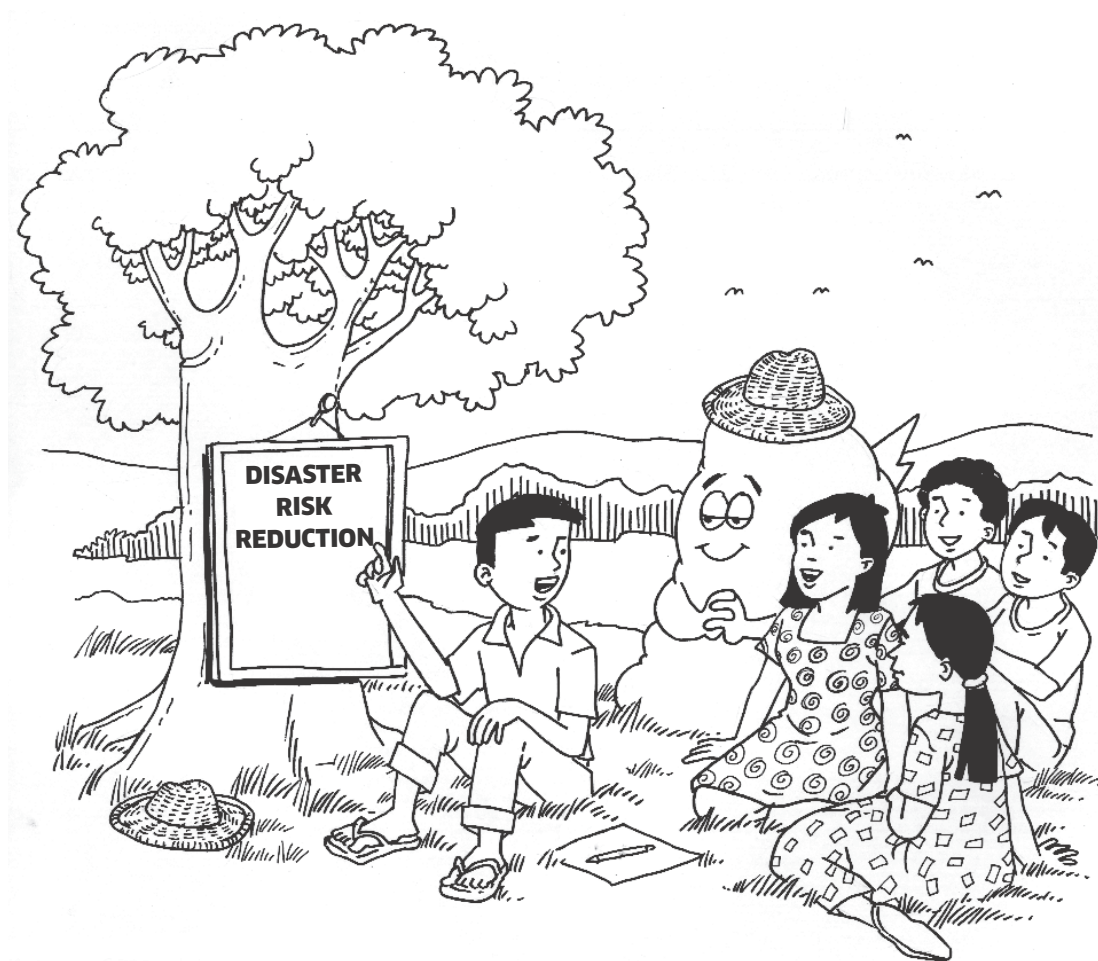
The following case is an example to illustrate the difference between NGOs and community indicators for either hazards or disasters:

In Kenya, the government normally declares drought a disaster in the whole district and everyone receives relief. But given that a drought creeps in slowly, when can drought be called a hazard and a disaster? The NGOs indicators that a drought is a disaster are when there is no water, no crops and there is reduced rainfall. What is the community indicator? Community indicators are different from NGO or government's. The following shows how a community can have coping mechanism:

There is a community in Southern Kenya, which has both pastoralists and agriculturalists and the two sub groups face disaster at different points of the hazard's occurrence. Hence, when the agriculturalists using their own indicators determine that their pastoralist neighbors are at the brink of a disaster, women's groups give money to the pastoralist women's groups to help out. In this case, the communities can cope and hence we should be careful not to be too quick to declare disaster. It must be emphasized that the government will and should take action based on the information from the community. If the government has the capacity to respond to the disaster, then government should consider it a hazard because it has enough mechanisms to cope. For instance when there was an earthquake in India, the external assistance started coming in to help but was stopped by the Indian government because to them it was a hazard and not a disaster since the country was able to cope.

Sometimes when a community is able to tell relief agencies to provide seeds instead of food, it is an indicator of the extent to which the community can or cannot cope. The more relief we give to the community, the more we re-enforce the message to them that they cannot cope with hazard events.

# EVOLUTION OF DISASTER RISK REDUCTION



**Duration:** 1 hour 30 minutes

## Description

This session provides a perspective on the evolution of disaster risk reduction (DRR) and discusses the salient features of various models of disaster management (DM) and DRR

## Learning Objectives

At end of the session, the participants should be able to:

1. Explain the shift from DM to DRR.
2. Identify the salient features of various DM/DRR model.
3. Explain the dividing line between DM and DRR.



### Learning aids and materials

- Attachment 1. Material - Disaster Management/Disaster Risk Reduction models
- Attachment 2. Handout - Comparative Analysis of Various Models
- Attachment 3. Foundation of Safety and DRR Measures: Building Resilient Communities
- Attachment 4. Handout - Understanding Disaster: Conventional and Alternative Views

## Procedure

### Activity 1. Marketing game (30 minutes)

1. Divide participants into 5 groups, making sure there is a good mix of academic backgrounds and experience in the groups.
2. Give each group a DM/DRR model (Attachment 1) with the following instructions:

Think of the model as a business product that you have to sell to buyers (the rest of the participants) in a sales event (group reporting). The groups have 15 minutes to prepare and identify the salient features of their models. Each group has to convince the audience that its model is the best one.

3. After each “sales” presentation, ask the rest of the participants if they would purchase the product (model) on sale, allowing three minutes of interactive discussion between sellers and buyers.
4. Wrap up the activity by highlighting the following points:
  - Models are to enable people to understand and explain complex processes or ideas in this case, DM or DRR.
  - The 5 models can be divided into 2 distinct categories: DM models (Disaster continuum; Contract and expand; and Pre, during and post models) and DRR models (Disaster crunch and release model and the DRR formula). (Refer to handouts).

### Activity 2. Input comparing the various DM/DRR models (45 minutes)

1. Compare the different models and clarify the salient points of each model. (Refer to the footnotes on Attachment 1 and the comparative analysis of these models in Attachment 2.)
2. Using the handout (Attachment 3), explain to the participants that all models come from different schools of thought on disaster. Allow for questions after your input.
3. Using the handout (Attachment 4), explain to participants that the fulfillment of basic rights are the foundation of safety and the dividing line between DM and DRR.

## Synthesis (15 minutes)

From DM cycle to DRR

1. There has been a shift from the old school of thought that looked at disaster as an act of God to disaster as an act of man. From a reactive approach to hazard events to proactive approach to DRR comes the era of hazard prevention and mitigation and vulnerability reduction by building individual capacity to survive and strengthening the communities as functioning support systems. Sustainable development is at the core of this holistic approach (Attachment 4).



2. The DRR formula presents a framework and a tool to address the linkages between development and risk.

$$\text{Disaster risk} = \frac{\text{Hazard} \times \text{Vulnerability}}{\text{Capacity}}$$

When Hazard and Vulnerability rates are higher than Capacity, then Disaster risk is high:

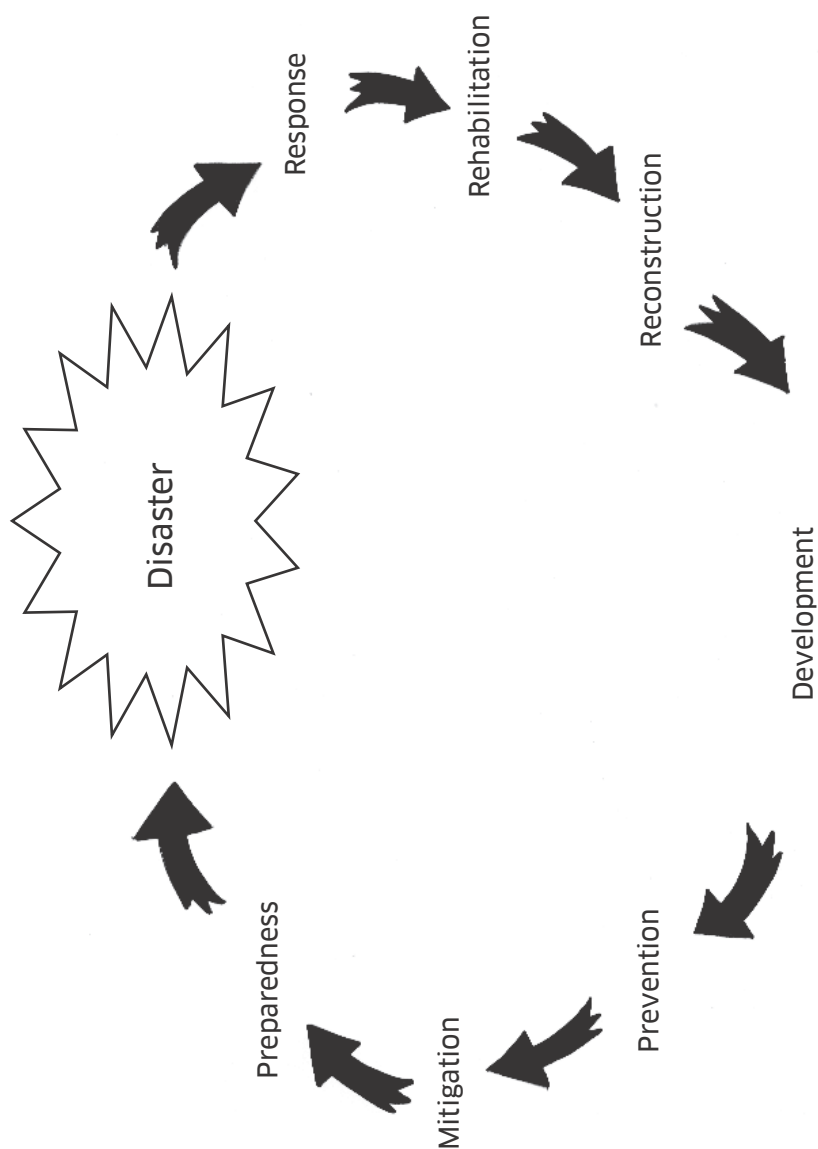
When Capacity is higher than Hazard and Vulnerability, then Disaster risk is low.

3. There is a clear dividing line between DRR and DM which is determined by conducting damage assessment and needs analysis. This shows the community's ability to cope.
4. The new paradigm espouses building resilient communities, guided by the following principles:
- Communities have accumulated local knowledge about hazards and know how to react to an adverse situation.
  - Communities are survivors, not victims.
  - Basic rights are the foundation of safety.
  - Community organizations are mechanisms for successful DRR initiatives and the government is a major player.
  - Communities have to take responsibility for their most at-risk members (typically the poor, those with less capacity to cope, or the groups most affected).
  - It is the communities that decide if they are in a state of disaster – if they cannot cope and need outside help, or if they can cope and have the capacity to face the challenge.
  - Resilience is not merely accumulated physical assets or secured livelihoods.
  - Resilience is also the will to survive and insistence on the rights to a just and equitable society.

## Attachment 1. Material for Activity 1



## Disaster management continuum

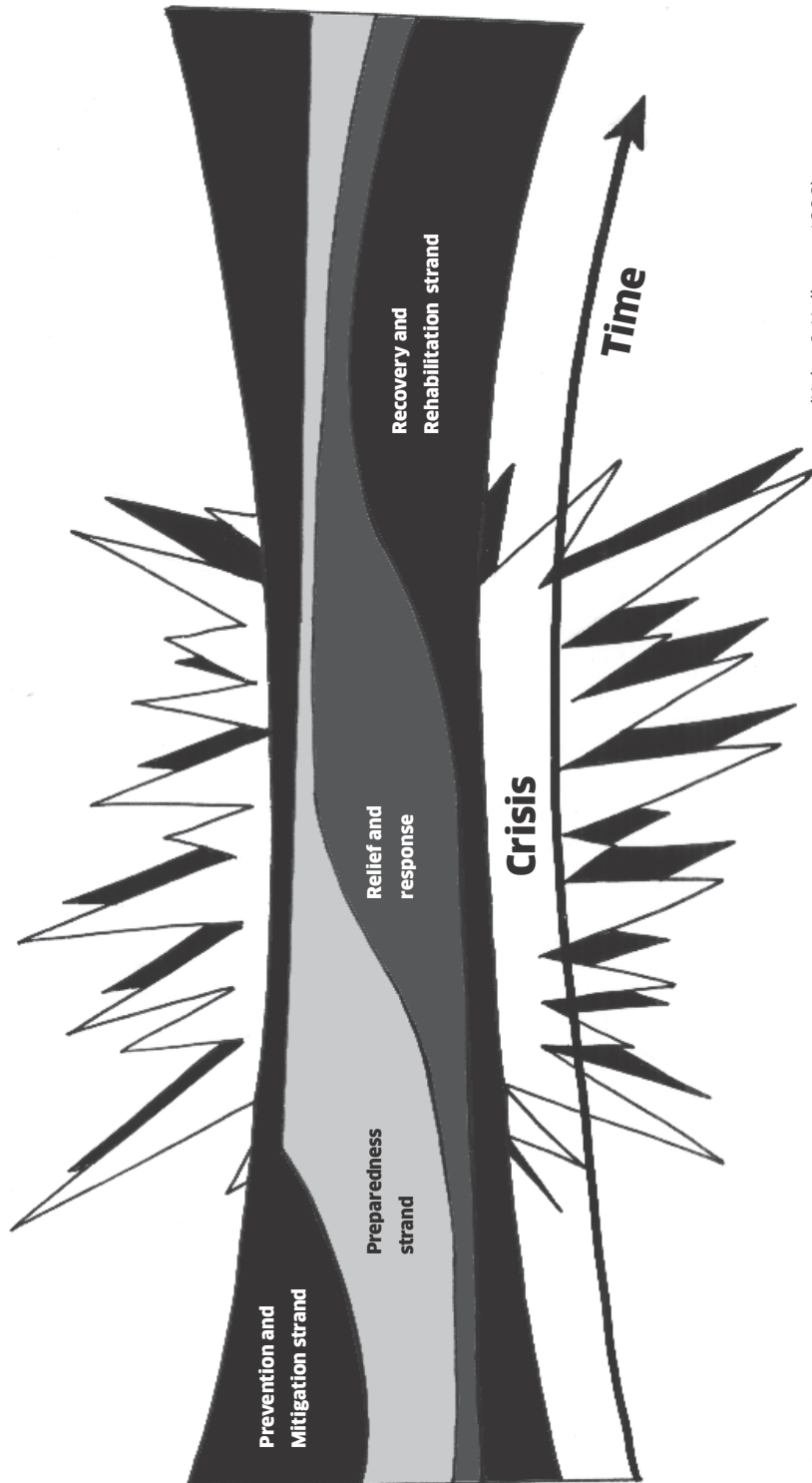


The Disaster Management Continuum shows the chronological order of interventions intended to control disaster events. While the activities are indeed circular, as the graphic shows, they always return to the same state. In actual practice though, some improvements occur.

## Material for Activity 1



### Contract and expand model



(Kolze & Holloway 1996).



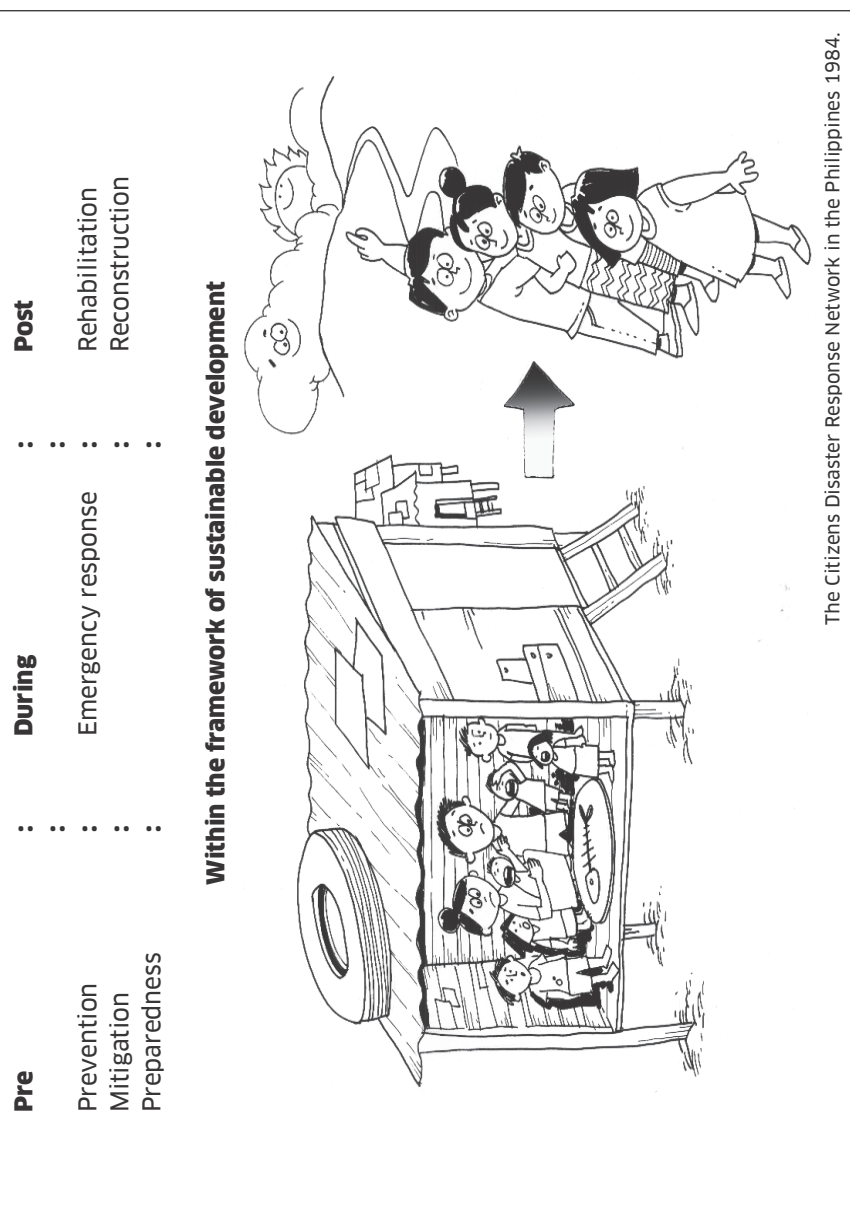
The Contract-Expand Model assumes that interventions such as preparedness, prevention and mitigation, relief and responses; and recovery and rehabilitation can be implemented in the community simultaneously. The scales of interventions may vary before, during and after disaster events.



## Material for Activity 1



### Pre-During-Post model



The Pre-During-Post Model assumes a simplistic linear approach and serves as an alternative model to the DM cycle. It classifies interventions as pre, during and post disaster interventions. (The Citizens Disaster Response Network in the Philippines, 1984).

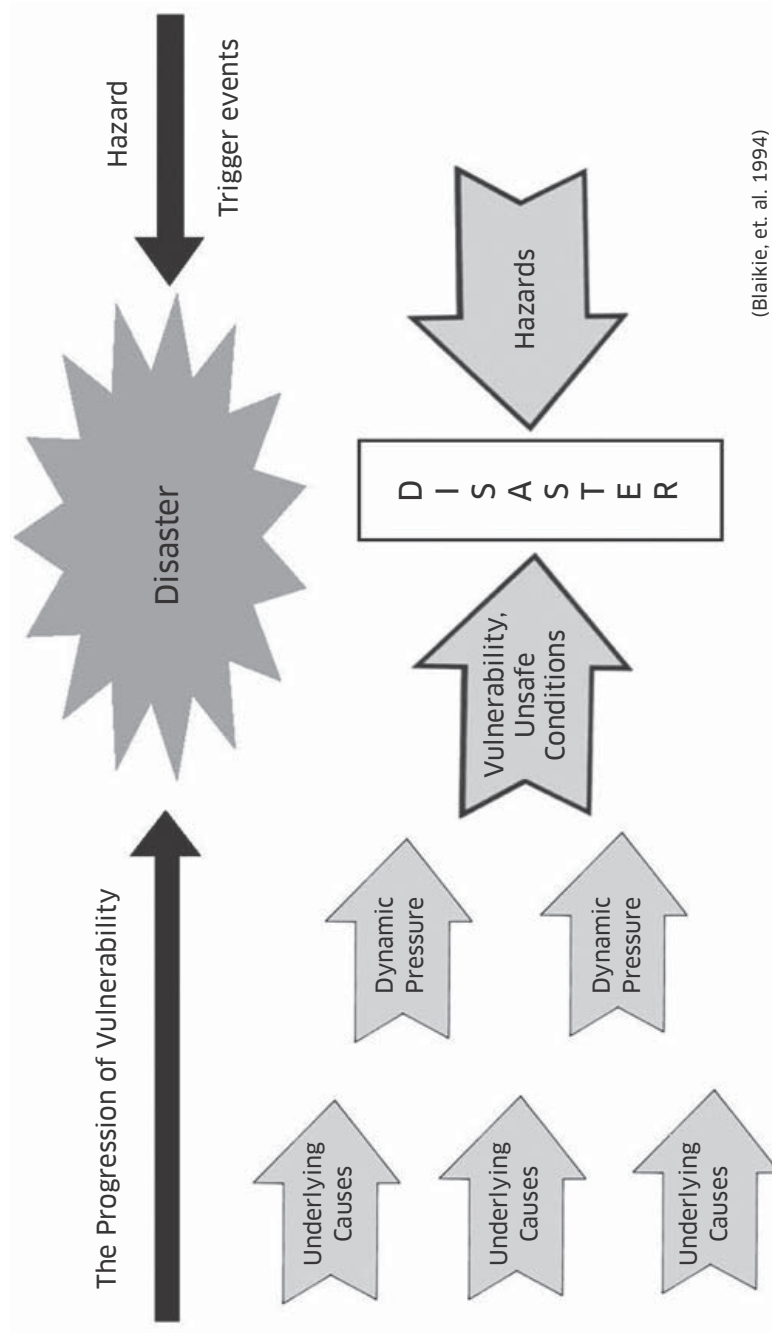
## Material for Activity 1

### Note to facilitator

This handout should always go with the Disaster Crunch Model (previous page)



### Understanding Vulnerability: the Disaster Crunch Model



(Blaikie, et. al. 1994)



Dynamic Pressures within the society are the immediate causes of the unsafe conditions. They are processes and activities that have "translated" the effects of root causes into unsafe conditions. Beneath the Dynamic Pressure are Underlying Causes, which lead communities or sections of them to be unsafe and vulnerable. Vulnerability is not a situation that just happens. Most often, it has developed as a progression from Underlying Conditions to Dynamic Pressures and later, to Unsafe Conditions. The 'crunch model' helps us understand the process of vulnerability assessment, but does not yet show us how to apply this at community level.

Source: [www.globalcrisisresolution.org](http://www.globalcrisisresolution.org)

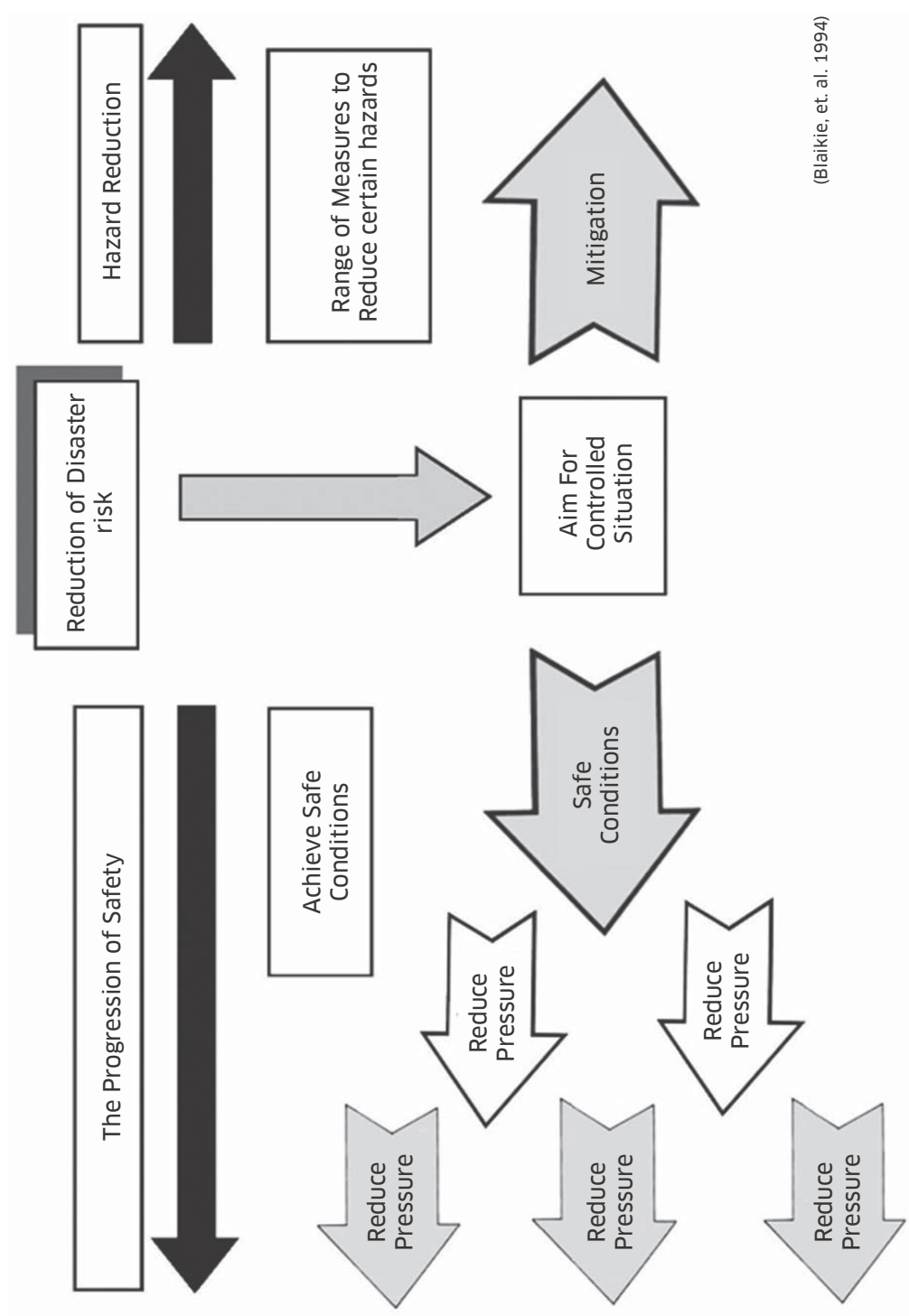




## Material for Activity 1



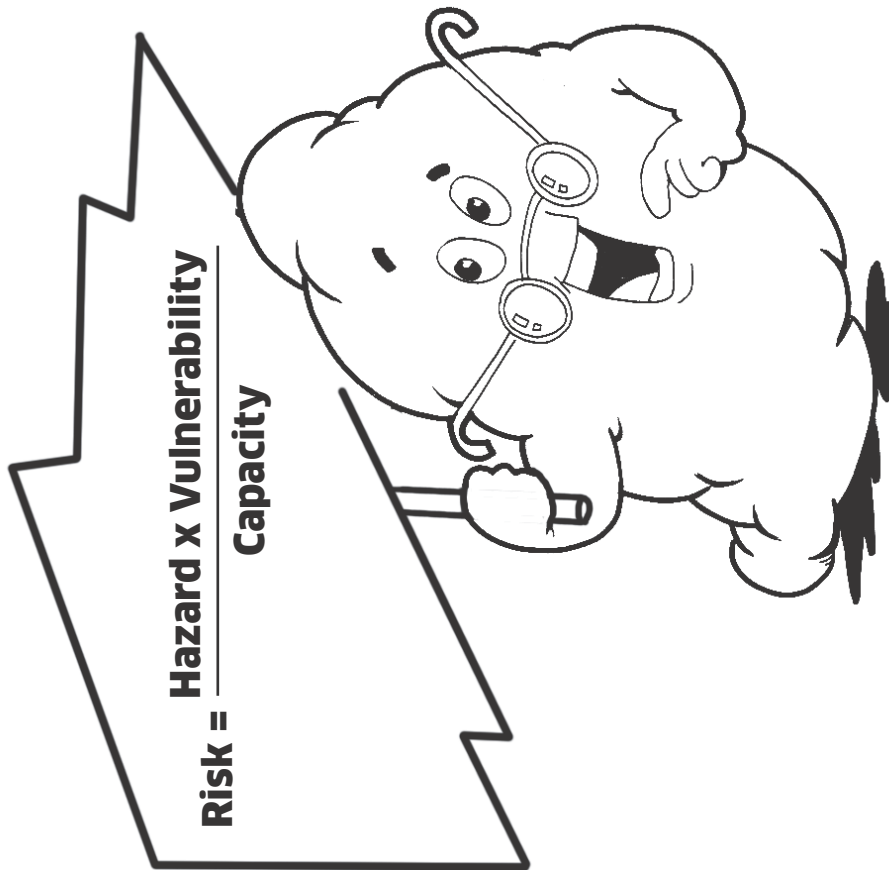
## Disaster Release model



## Material for Activity 1



### DRR Formula



### Disaster Risk Reduction Formula

This model determines disaster risk using hazard, vulnerability and capacity as variables. It is both a framework and a tool in analyzing and reducing disaster risk.



## Attachment 2. Handout

Comparative Analysis of Various Models<sup>1</sup>

Character	DM Model			DRR Model	
	DM Continuum Model	Pre-During and Post Model	Contract and Expand Model	Crunch and Release Model	DRR Formula Model
Assumptions	The activity is cyclical	The activity is simplistic and linear	The extent of activities expands and contracts if there is crisis	Disaster happens when vulnerable groups are pushed into unsafe conditions and capacity to cope decreases	There is great risk if the Hazard or vulnerability is great and capacity is low.
Concepts	Disaster is a natural process and activities are identified (there is no beginning or end)	Disaster will happen and activities are identified (there is a beginning and an end)	Crisis event dictates the extent of DM activities.	Disaster is a human act. Thus there is a need to solve the root causes of vulnerability and to understand hazard events.	If the risk is great, disaster will most likely happen. Disaster is a human act.
Focus	Activities before and after disaster are identified  Activity-centered	Activities before and after disaster are identified  Activity-centered	Activities are identified and done using linear approach  Activity-centered	Increases the capacity to cope by reducing the vulnerability and hazard  Social analysis-centered	DRR eliminates or reduces vulnerability, understands the hazard characteristics and builds the capacity based on Hazard and Vulnerability  Social and natural science analysis-centered
Types of change involved	Functional change	Functional change	Functional change	Functional and structural change	Functional and structural change
Key Actors	Disaster managers	Disaster managers	Disaster managers	People, social development workers and technical people	People, social development workers and technical experts

<sup>1</sup> Prepared by Rusty Biñas, Cordaid Global Advisor for Disaster Risk Reduction



### Attachment 3. Handout

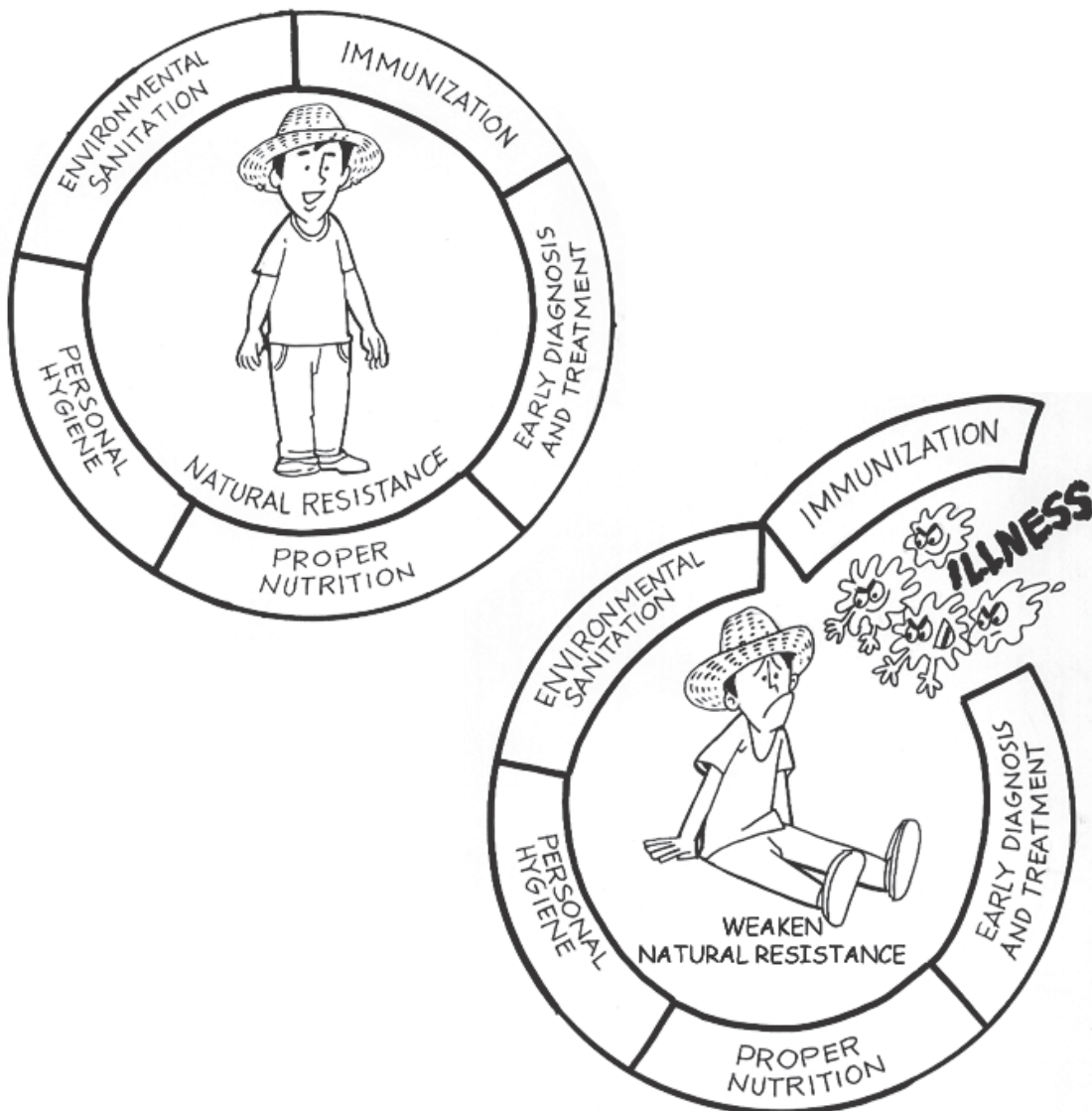
## Foundation of Safety and DRR Measures: Building Resilient Communities



Recognition of the inherent dignity and the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world. Their realization is the basic foundation of safety.

Building resilient communities, therefore, means ensuring the enjoyment of basic rights, from the right to life to the right to access resources. It means ensuring safety by reducing the risks that people face particularly the vulnerable sectors of society. It means awareness and implementation of measures.

For example the effective delivery of basic services such as immunization against diseases or access to adequate food is basic in enhancing natural resistance. Its absence or lack results in weakened communities and the inability to cope with hazards.



Rusty Biñas, Cordaid Global Advisor for Disaster Risk Reduction

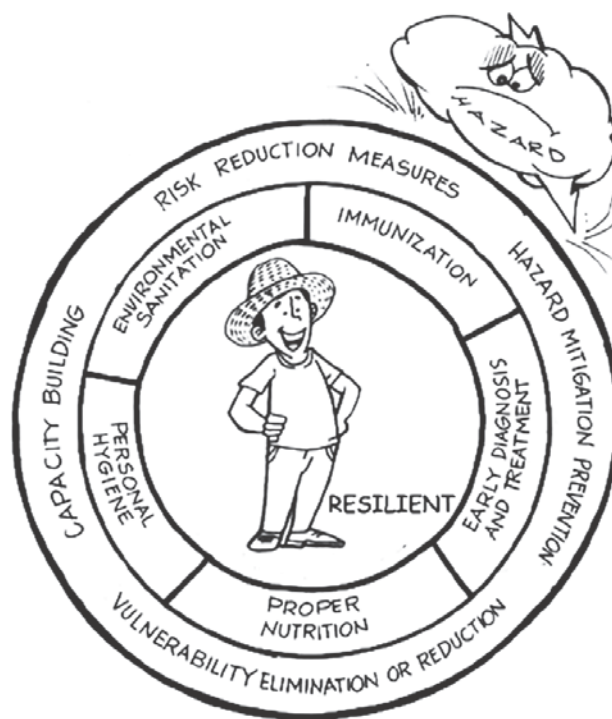


Disregard and contempt for human rights as a foundation of safety have resulted in homelessness, abuse, neglect, being afflicted with preventable diseases, unequal access to education and ineffectual justice systems. When hazard strikes, those who least enjoy human rights are the weakest and find it hard to survive, transforming the hazard event into a disaster.

Building people's capacity to reduce their vulnerability to a hazard are the elements that comprise DRR measures. Disaster happens when the foundation of safety is weak and DRR measures are not in place.

Even if there are efforts to assert the enjoyment of human rights and enhance the foundation for safety, DRR measures are necessary to fully attain resilience against any eventuality.

DRR is a framework and a tool that determines the degree of risk and describes measures to increase capacities and reduce hazard impact on the elements at risk so as to avert disaster.



### The Dividing Line Between DRR and DM



Towards resilient individuals, family, community, society and nations

#### Activities

- Building the foundation of safety through activities for the full enjoyment of basic rights.
- Building DRR through activities that will reduce disaster risk such hazard prevention and mitigation and eliminating or reducing vulnerability from the hazard through building individual survivability and community readiness.

#### When hazard events strike:

- All internal capacities are being used to cope from the hazard events. No need for external help because of internal capacities to cope.
- Contingency plan is activated using available resources in saving more lives and reducing the impact of the hazard through organize actions based on early warning systems, evacuation systems, food and medicine stocks, transportation, communication, logistical supplies, search and rescue.
- Damage assessment and need analysis is a determinant if the situation is to be declared a disaster meaning the community needs outside help because the situation is beyond its capacity.

Towards saving more lives and reducing the impact of the hazard

#### Activities

- Systems in place to save lives and reduce the damage

#### When hazard events strike:

- All actions that use external help beside internal capacities.
- Insiders cannot cope and require outside help.
- If all the set-up contingency plan requires further assistance from the outside, resource mobilization from the outside is activated.
- Emergency response



## Attachment 4. Handout

Understanding Disaster: Conventional and Alternative Views <sup>1</sup>				
Point of view	Conventional/dominant	Alternative/progressive		
Assumption	<ul style="list-style-type: none"> <li>■ "Acts of God"</li> <li>■ Disaster is natural</li> <li>■ Inevitable occurrence - we have no control</li> </ul>	<ul style="list-style-type: none"> <li>■ "Acts of Man"</li> <li>■ Disaster is not natural</li> <li>■ Evitable occurrence - we have control</li> </ul>		
Communities are considered	Victims and beneficiaries of assistance by outside experts	Central players		
Approaches	Natural science	Social science	Holistic	
Equates disasters with	Hazards such as earthquake, floods, etc.	Magnitude of loss and damage associated with hazard events	Not only hazards but also the political, economic and social environment or context because of the way it structures the lives of different groups of people.	
Deals with	Geophysical, geological and hydro-meteorological processes	Exposure and resistance of physical structures to mitigate damage and loss	Causes of disasters are closely associated with unsustainable development patterns, which increase the risk faced by large sectors of society	
Focus	Emergency management	Identification of hazards prone locations and the patterns of physical vulnerability	Understanding the complexity of disaster risk by analyzing the underlying conditions of risk generated by people through their normal existence in a situation of unsustainable development	
Objective	Mitigate loss, damage, disruptions and to facilitate a quick recovery	Enhancing and strengthening capacities of household, community and society to absorb losses and recover from disasters	Increased capacities to manage and reduce risk and hence, the occurrence of disasters.	
Shifts	From relief and mitigation paradigm in managing disaster	A development paradigm	Emergence of DRR paradigm	
Intervention	Centered around service delivery and relief and recovery assistance	It tackles unresolved issues in development and capacity development and releasing people's potential		

<sup>1</sup> Abstracted by Rusty Biñas from Zenaída Delica Willison articles on Paradigm shifts in disaster management.



# RESILIENCE: COMMUNITY PERSPECTIVE



**Duration:** 1 hour

## Description

This session enables participants to define resilience within the context of disaster risk reduction. It discusses the interconnectedness of key elements at risk to human element at risk. It introduces a framework for resilience and tackles how, when and what it takes for a community and an individual to be “resilient”.

## Learning Objectives

At end of the session, the participants should be able to:

1. Clearly explain the definition of resilience.
2. Demonstrate the interconnectedness and interdependence of elements at risk and different capacities.
3. Identify the uses of the resilience framework.



### Learning aids and materials

- Attachment 1. Sets of drawings that represent various factors related to resiliency
- Attachment 2. Handout - The Resilience Framework (complete illustration)
- Attachment 3. Handout - the resilience framework
- Attachment 4. Understanding the Resilience Framework (matrix)
- Attachment 5. Handout - Visual analysis of the framework

## Procedure

### Activity 1. Resilience Representation Exercise (20 minutes)

1. Divide the participants into five groups.
2. Ask each group to go out of the session hall and look for an object that would represent or define resilience.
3. Once the participants return, ask each of them to present the object chosen, stressing the characteristics of the objects that are related to the concept of resilience.
4. Summarize the presentations and provide information on the definition of resilience using Attachment 3, the handout on the Resilience framework. Explain that: Resilience refers to the individual and community elements at risk surviving and bouncing back from the hazard event and returning back to normal or better functioning in society, relying on their own capacities. Therefore, resilience refers to the capacity of an individual and the community to get ready to bounce back from any eventualities resulting from hazard events.

### Activity 2. Linking the Figures (30 minutes)

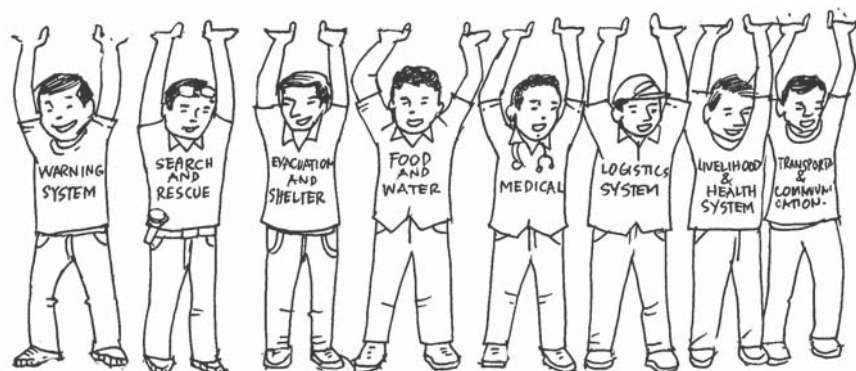
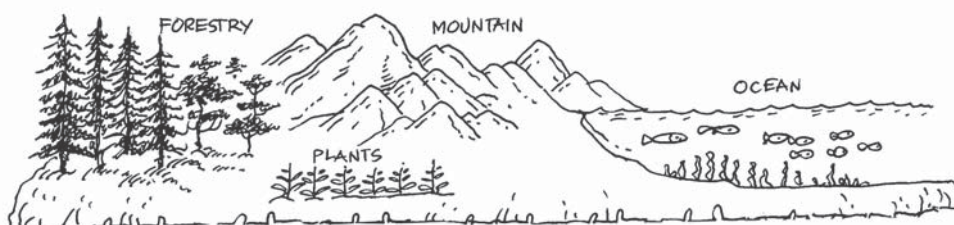
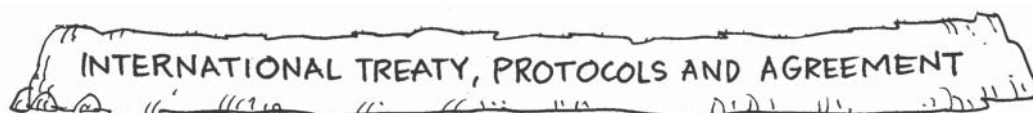
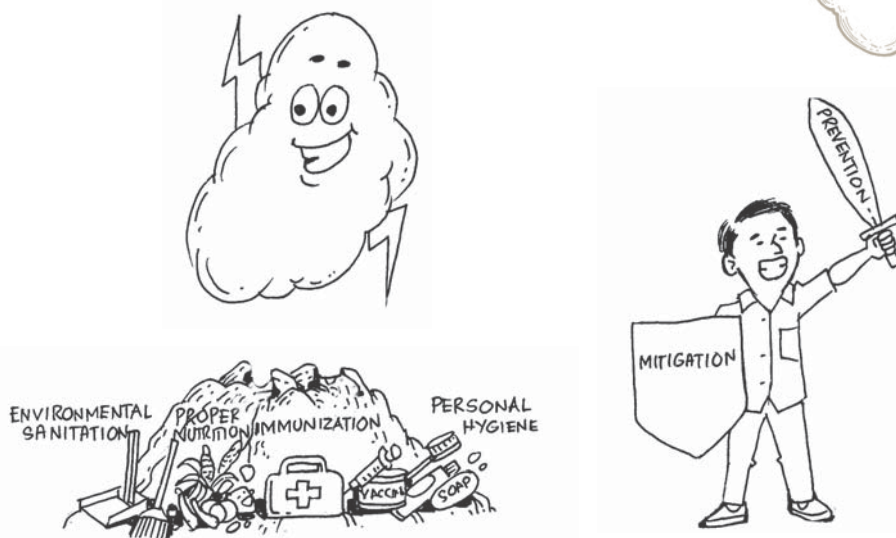
1. Divide the participants into groups of 5 and give each group the cutouts of figures from Attachment 1. Ask the participants to discuss and arrange them to demonstrate the interconnectedness and interdependence of the elements in relation to capacities. (Attachment 1) Give them 10 minutes for the task.
2. Have each group explain in plenary how they linked the different figures. Summarize the points raised by showing Attachment 2. Attachment 3 is a useful reading material to understand the detailed relationships of each key element. Highlight the key points of the resilience framework (Refer to Attachment 4: Understanding the Resilience Framework for further explanation).
3. Ask the participants how this Resilient Framework could be of use.
4. Summarize the answer in plenary and highlight the following:
  - a. The resilience framework is the ideal goal for each individual in the community. It serves as a guide in building and measuring resilience.
  - b. The resilience framework guides a community in assessing and analyzing their disaster risk. It is their basis for reflecting where they are at a point in time in terms of their capacities and to determine which layers are weak or strong which is attributed to other layers too. (Attachment 5)
  - c. In assessing one's capacity towards resilience, the resilience framework helps ensure that every element or all aspects are covered.

## Synthesis (10 minutes)

- Resilience refers to the individual and community elements at risk being able to survive and bounce back from the hazard event, using her or his capacity to return back to normal functioning. Resilience, therefore, is the capacity of an individual and the community to bounce back from any eventuality and improve his or her condition towards full enjoyment of being an empowered human being and community.
- Since communities are not homogenous, it is necessary to develop specific resilience indicators for each community.
- There is an interlocking and dynamic vertical and horizontal relationship between key elements of the resilient framework.
- Resilience is defined based on the framework in reference to a single hazard.
- The resilience framework guides the risk assessment and analysis in coming up with specific capacities needed for a particular hazard.
- If the element at risk is in a multi-hazard situation, each hazard should have a specific risk assessment and analysis.

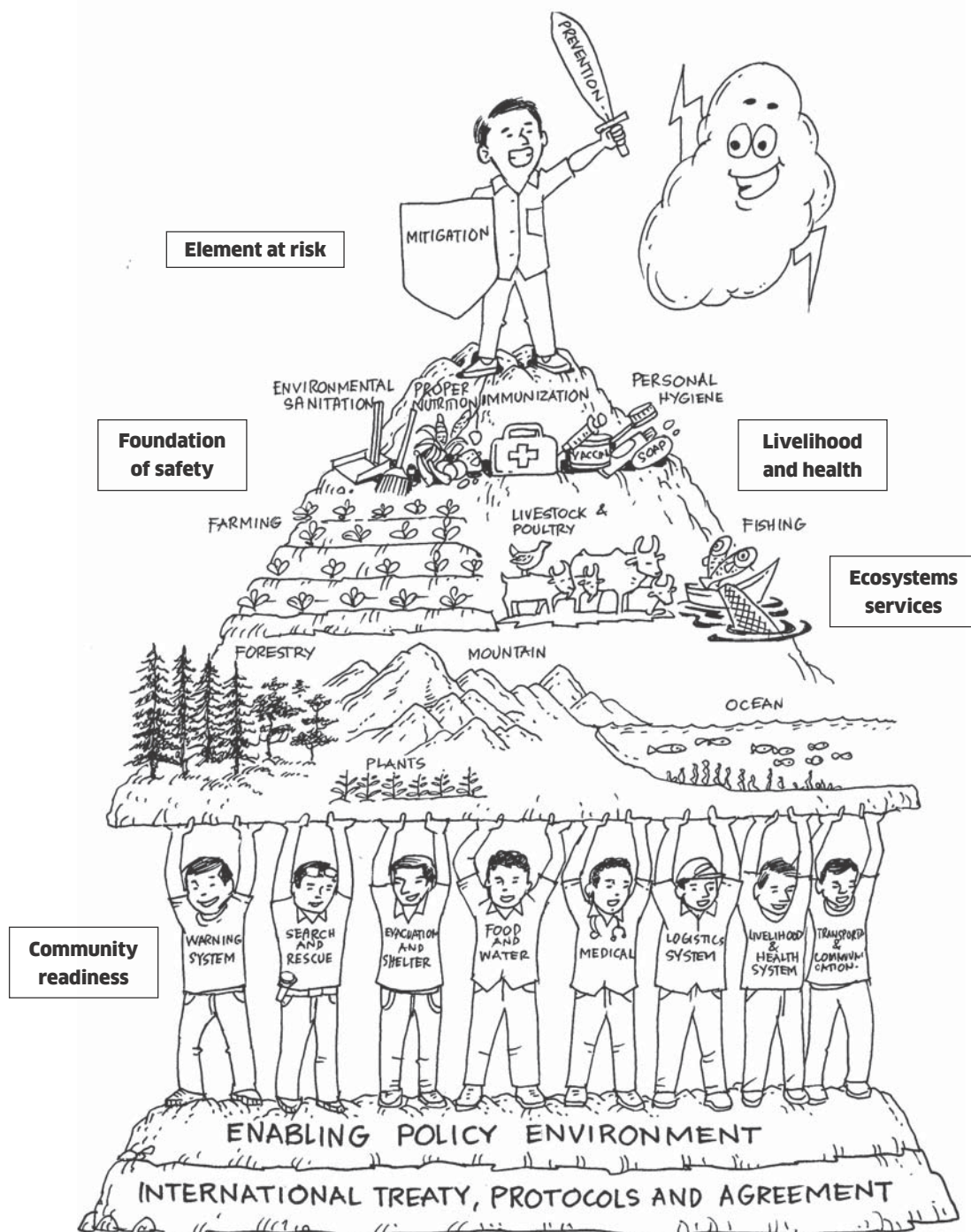
## Attachment 1. Material for Activity 2

This material is to be cut into separate parts. Each group is given a set of these drawings.





## Attachment 2. Handout - The Resilience Framework<sup>1</sup> (Illustration)



<sup>1</sup> Cordaid. 2013. Measuring Resilience - Using the Community Managed Disaster Risk Reduction Approach. By Rustico "Rusty" Biñas



## Attachment 3. Handout



### Resilience framework

Building upon community resilience enables the individual members of the community at risk to survive and bounce back from any hazard.

The core purpose of disaster risk reduction, climate change adaptation, and ecosystem management and restoration are all for the benefit of human survival and is aimed at increasing capacities to bounce back with the end state of resilience. Thus, the framework will illustrate how the human element at risk increases or decreases his/her disaster risk when a particular ingredient or element is strong or weak.

Each element at risk – either man, woman, boy or girl – has different capacities to survive and bounce back from any hazard. Even before the hazard strikes, elements at risk have certain interlocking capacities that strengthen their foundation of safety helping empower them to shape their community organizations to take responsibility for those most at risk in the community. Hierarchical and dynamic interlocking capacities illustrate how the individual and the community can become resilient.

As shown in Illustration 1, the human element at risk at the topmost part of the pyramid, is the subject of the analysis. He/she determines the hazard and acts to prevent and mitigate it.

During normal period, an individual enjoys basic rights such as food, water, and clothing, shelter, immunization as the foundation of safety, along with the ecosystem services for survival, healthy environment, and livelihood. If the element at risk is accorded these basic rights, his/her foundation of safety against hazard is stronger.

The sword and the shield in the hands of the element at risk shows that the element at risk is addressing hazard prevention and mitigation.

Immediately below the element at risk is the foundation of safety that provides the first level capacity support to the element at risk to enable him/her to survive within 72 hours after the hazard strikes.

Livelihood and health provide the second level capacity support to bouncing back. When hazard strikes, the element at risk is then able to actively participate in community organizations by supporting other members of the community to survive and bounce back. Therefore, more lives are saved and damage to properties and livelihood is reduced. This can happen only if community systems and structures are in place.

Ecosystem services, as third level capacity support, help sustain the survivability and bouncing back of the element at risk. Community readiness, through systems and structures, is the fourth level capacity support that also enables survivability and bouncing back. This is not limited to technical solutions but includes the issue of power and social transformation.

The enabling policy environment, as fifth level capacity support, helps ensure human security while international treaties, at the bottom of the support system, paves the way for global order. An enabling policy that upholds community DRR initiatives can serve as support to community systems and structures.

The global platform of international treaties, agreements and protocols can also help ensure that the individual element at risk is safe and able to bounce back and actively participate in community DRR initiatives.

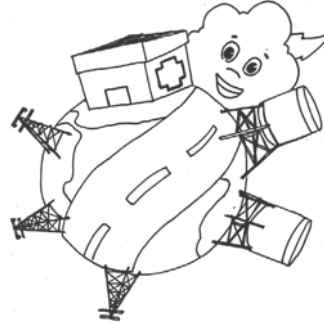
However, even without the fifth and sixth levels capacity support, the element at risk can still survive and bounce back as long as the required capacity support in the upper levels are met.

### Ecosystem Services

- Water quality and quantity
- Air quality
- Food
- Clothing materials
- Shelter materials
- Fodder for cows

### Basic Community Systems and Structures

- Early warning
- Evacuation
- Search and rescue
- Food, water and shelter
- Medical services and supplies
- Transportation and communication
- Coordination and governance
- Security
- Livelihood, health and education
- Ecosystem management and restoration



## Attachment 4. Reading Material

Understanding the Resilience Framework<sup>1</sup>

Elements	Thematic representation	Element at risk specific measures	Hazard specific Measures	
Element at risk	The subject	Center of unit of analysis	Prevention	Mitigation
Foundation of Safety	Survivability	First level capacity support		
Livelihood and health realm	Bouncing back	Second level capacity support		
Ecosystem services	Supports Survivability and bouncing back	Third level capacity support		
Community readiness	Systems and structures that help individual element at risk to survive and bounce back	Fourth level capacity support		
Enabling policy environment	Ensuring Human Security	Fifth level capacity support		
International treaties, protocols, call for actions	Global order	Sixth level capacity support		

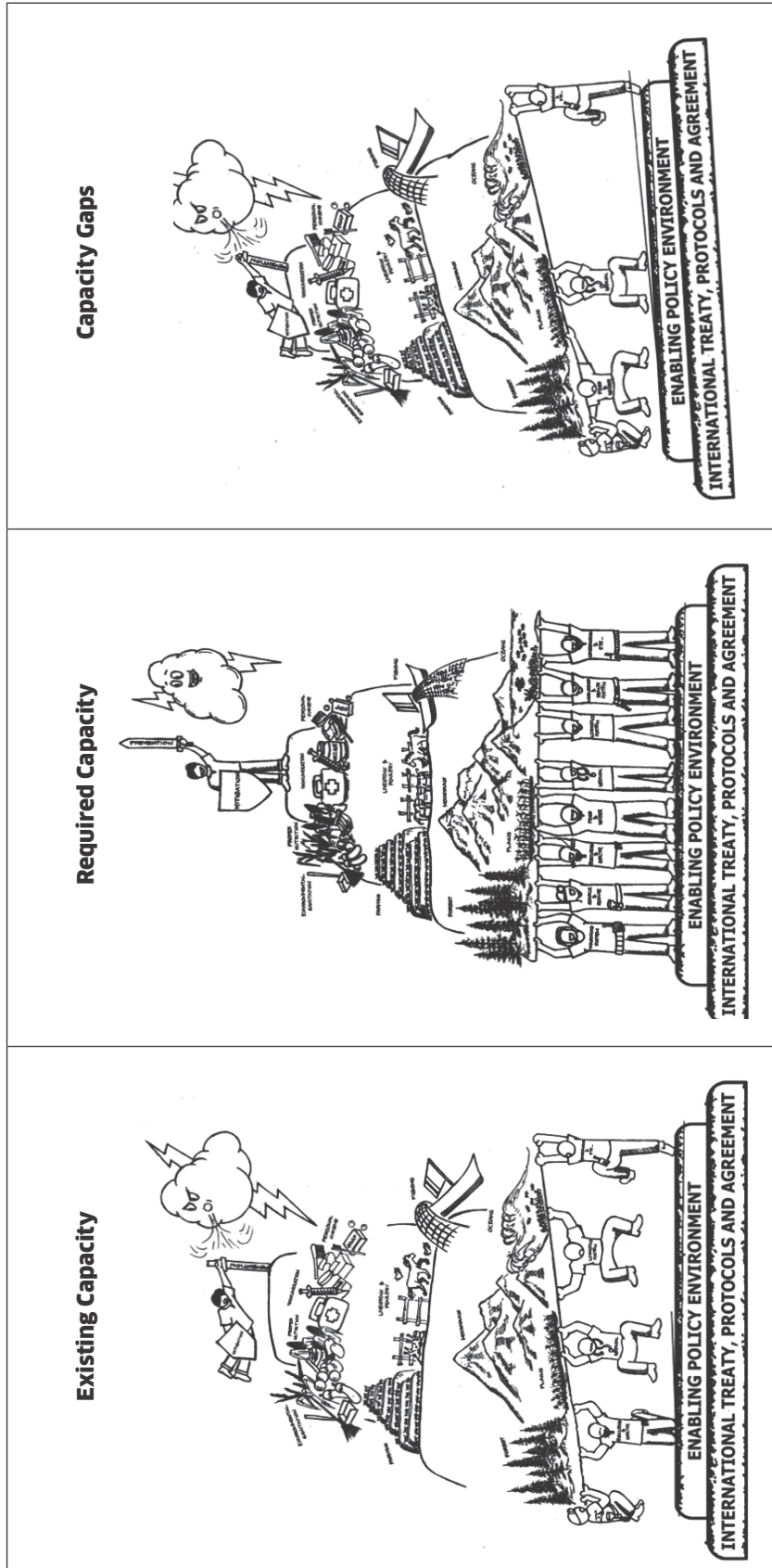
<sup>1</sup> Cordaid. 2013. Measuring Resilience – Using the Community Managed Disaster Risk Reduction Approach. By Rustico “Rusty” Biñas



Attachment 5. Handout



Visual Analysis of the Framework<sup>1</sup>



<sup>1</sup> Cordaid. 2013. Measuring Resilience - Using the Community Managed Disaster Risk Reduction Approach. By Rustico "Rusty" Biñas







# LINKING ECOSYSTEMS MANAGEMENT AND CLIMATE TO DISASTER RISK REDUCTION



**Duration:** 3 hours

## Description

While communities might increasingly be aware of environment and climate change issues and their manifestations, it is not always evident how ecosystem functioning and disaster risk reduction (DRR) are linked. Some guidance must therefore be provided to raise awareness on such issues as the intricate connection between upstream and downstream communities in terms of natural resource use and disaster risk; association between critical livelihoods, forests, wetlands and climate; and the connections between hazards and land uses in the ever-changing landscapes.

A broad understanding of these issues would contribute to the adaptation and sustainability of communities as they embark into CMDRR as well as the full appreciation of their traditional knowledge.

## Learning Objectives

At the end of the session, participants should be able to:

1. Explain why ecosystem management and climate change matter in DRR and how ecosystems management affects DRR.
2. Explain what are some basic considerations in ecosystem management and climate change adaptation in the design of long term DRR planning.



### Learning aids and materials

- Maps – if possible, maps made by the community such as a risk map and “official” maps showing land use, hydrological data, and other features that would help locate the community in its geographical context.
- Markers
- Flip chart paper
- 1 spool of yarn or plastic rope
- Meta cards
- Masking tape
- 15 paper cups
- Attachment 1. Handout – Resilience framework
- Attachment 2. Reading Material - Linking ecosystems management and climate to DRR

## Procedure

### Activity 1. Web of life exercise: Understanding the ecosystem and its relationship to DRR and CCA

#### Note to facilitator

- This exercise is useful to introduce basic concepts on ecosystems and climate, including evolution and adaptation. This exercise will allow the participants to articulate the inter-dependence and value of different players in the ecosystem as well as to demonstrate the inter-connectedness of each key player in the ecosystem (causal to the condition of the individual element at risk.)



1. Ask each participant to identify and represent anything in the ecosystem. Use the card and marking pens to write what they represent and post it at their chest level for everybody to see. Examples: Sun, ant, soil, water, fish, bird, tree, carbon, oxygen, mountain, river, grass, stone, rocks, snake, human being, worm, lizard and etc.
2. Instruct participants to form a circle facing each other. Hand the end of the yarn to a person who represents the “Sun”.
3. The “Sun” connects the participants using the yarn, starting by giving one end to a participant and asking, “To whom are you going to relate? Why?” The participant holds on to the yarn as the ball is given to another participant.
4. Every person who receives the yarn should answer the same questions until all members have finished and the yarn has formed a web.

#### Note to facilitator

- It is fine if the yarn goes back to the same player. Each player has multiple relationships, thus, allow each player to express their relationship.



5. Ask participants what they see and they have learned from the exercise. The possible answers are:
  - Each key player is interconnected and interdependent.
  - The yarn represents the relationship. The tighter the web, the healthier the ecosystem is.
  - Each key player is equally important;
6. Next, ask the group, “What if a hazard came and one key player is affected?” Then have one person release his hold on the yarn.

7. Ask provocative questions: What happened to the web? What does it mean? Possible answers:
  - The relationship has collapsed. The yarn is no longer tight; and the connections have weakened due to the degradation and/or deterioration of the ecosystems.
  - The ecosystem is not anymore in balance. There is dwindling of ecosystem services. The interdependence is weakened and possible extinction might happen. Each one adapt and evolve through time;
8. Synthesize by stressing the following points:
  - Everything in the ecosystem is connected and inter-dependent. Allowing one to blossom and not disturbing it means continuous provision of services to human beings such as water, oxygen, carbon sink, medicinal cure, spiritual enrichment, entertainment, and education among others.
  - The more the ecosystem is degraded or destroyed, the more the relationship of each key player is endangered. It would mean dwindling ecosystem services and inability to provide life support system to the human beings such as food, water, shelter among others which are the capacities needed of elements at risk to survive and bounce back.
  - The changing variables of climate entail adjustments for each key player in the ecosystem. It could mean extinction, survival and adaptation for them.
  - If extreme events are not addressed and human abuse of nature is not checked, the result would be a weakened ecosystem, widening the gap between resiliency and element at risk. It will reduce the capacity of element at risk to survive, bounce back and transform the system and structure.
  - A healthy ecosystem – considered as capacities and back up support – means more benefits to people. They use ecosystem services such as food, clothing, shelter, among others for their survival and bouncing back.

### **Activity 2. The Pyramid Exercise: Exploring the linkages of ecosystems, climate change and communities**

1. Prepare 11 paper cups and write on the side the following:
  - On 5 cups, put “Level 1” with names of plants such as grass, trees and crops
  - On 4 cups, put “Level 2” with names of plant-eating animals such insects
  - On 3 cups, put “Level 3: with names of animals that eat the animals in the previous level. Example: frogs which eat insects
  - On 2 cups, put “Level 4” with names of animals that eat the animals and plants in the previous level. Example: snakes
  - On the last cup, write HUMAN PERSON
2. Arrange the cups into a pyramid starting with level 1 at the bottom. Ask the participants what the characteristics of the pyramid are. What can they say about the relationships? Write the participants’ answers on metacards and stick them on the board. Summarize their answers by adding the following:
  - A pyramid is a stable structure.
  - The stability depends on the stability of the cups or components of the pyramid, starting at the base.
  - The Human Person is on top of the pyramid as s/he is dependent on the components of the pyramid to survive, while s/he also controls the fate of each of the component of the pyramid.
  - The broad foundation of the pyramid means there are more producers compared to consumers.
3. Leave the pyramid alone for a while and divide the participants into 4 small groups. Ask the groups to answer the question, “What human activities affect the stability of the ecosystem, positively or negatively?” Tell them to provide three answers per group and write them on meta cards.
4. The groups then choose one from among the three answers they listed.

5. Next, they agree on an action that would symbolize the human act that affects the ecosystem and do it on the pyramid. Example: pelting the pyramid with stones or blowing on the cups.
6. Gather all groups around the pyramid and have each group do their act to the pyramid. After each action, ask the participants: What happened to the pyramid? What real life situations can you think of that are similar to the different acts and the subsequent effects? Rebuild the pyramid after each group and repeat the process until all groups have finished.
7. To summarize the discussions, gather all meta cards from the groups and pin these on the board. Cluster similar and related ideas. Stress the following:
  - People tend to control the fate of all components of the ecosystem to their benefit.
  - People use ecosystem components for their survival needs such as air, water, food, shelter and livelihoods.
  - Modern life has increased the pressure on ecosystems services; people are driven by the need to accumulate wealth and maintain political and economic control over these resources.
  - As a result ecosystems now are unable to provide important survival services for many people, hence, putting them at risk to hazards.

### **Activity 3. Ecosystem-based communities**

1. Based on the prior profile of the participants, write on separate cards the following signs:
  - Upland Communities (dependent on forest resources)
  - Lowland Farming Communities (dependent on lowland agriculture)
  - Coastal Communities (dependent on fishing and coastal resources)
  - Urban Communities (dependent on employment and businesses)
2. Post one sign at each corner of the room. Ask the participants to go to the sign where they currently live and work.
3. Ask each person to say something about their place of origin and share at least one aspect they are proud of.
4. After each one has shared, ask the participants in each corner to discuss the following:
  - What are the top 3 main activities of the people living in their community on a daily basis?
  - Think of an unforgettable event that has disrupted the way of life of community members.
  - What do you think are the causes of this event? Can this even be prevented from happening again?
5. Ask the groups to write on flip charts their answers.
6. After the discussion, ask each group to present in plenary their outputs. Allow for some clarificatory questions and additions from group members. After all groups have presented their outputs, synthesize this activity by highlighting the following:
7. CMDRR as a framework is always about working at the community level
8. Communities are defined in many ways. Conventionally, they are defined according to political subdivisions (villages, districts, province, etc.)
9. Communities as discussed can also be based on ecosystems or common resource use
10. In CMDRR, our work in the community can also be varied. We can start at the smallest unit, the village, or we can adopt an ecosystem such as the watershed community which cuts across geographical and political divisions.

## Synthesis

- A (geographical) community site and situation could be determinants in understanding hazards and their possible impacts on communities. Landforms, climate, availability of water, soil characteristics, biodiversity (vegetation types, wildlife) and land uses are at the basic layer when understanding hazards and disaster risks.
- Land uses can be sustainable. In this case, there is no major environmental change. Deforestation, soil erosion and pollution are minimal. On the other hand, they can impair the environment to the point of triggering some potential hazards, such as landslides, fires, water sources depletion or pollution.
- The state of ecosystem services contributes to the capacities of element at risk to survive, bounce back and transform the system and structures. The existing system and structures being employed by the people might not support the healthy ecosystem thus transforming the system is necessary. Ecosystems (forests, rivers, wetlands, coastal areas) should be valued in terms of the services they provide to communities (water, food, wood, stable weather conditions, hazard mitigation and others). To prevent and stop their deterioration, ecosystem users need to monitor and manage their ecosystems.
- Weather variables often create frequent destructive events, such as typhoon, flood, forest fire, heat wave, rise of sea water. It can also create favorable impact, as in the case of the greening of the north and south hemisphere. All these changes are natural and the key players in the ecosystem, from plants and animals to human beings, evolve and adapt to the changing environment. However, men can also do something to protect themselves – by understanding what is coming and ensuring his rights to survive and bounce back are secured. This means the systems and structures that support survival and bouncing back are all in place.
- Present the diagram on resilience framework to show the link of ecosystems to the overall resilience of the individual and the community to hazards and the impacts of climate change. In this diagram it shows that the state of the ecosystem services is an important capacity for the elements at risk to survive and bounce back from hazards and climate change.

## Suggested readings

IPCC, 2012. Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups

I and II of the Intergovernmental Panel on Climate Change [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp.

IISD, Intercooperation, SEI, IUCN, 2009. CRiSTAL Tool and User's Manual, version 4.0, may 2009. Available at: <http://www.iisd.org/cristaltool/>

Millennium Ecosystem Assessment, 2005. Ecosystems and Human Well-Being: Wetlands and Water –Synthesis-. World Resources Institute, Washington D.C.

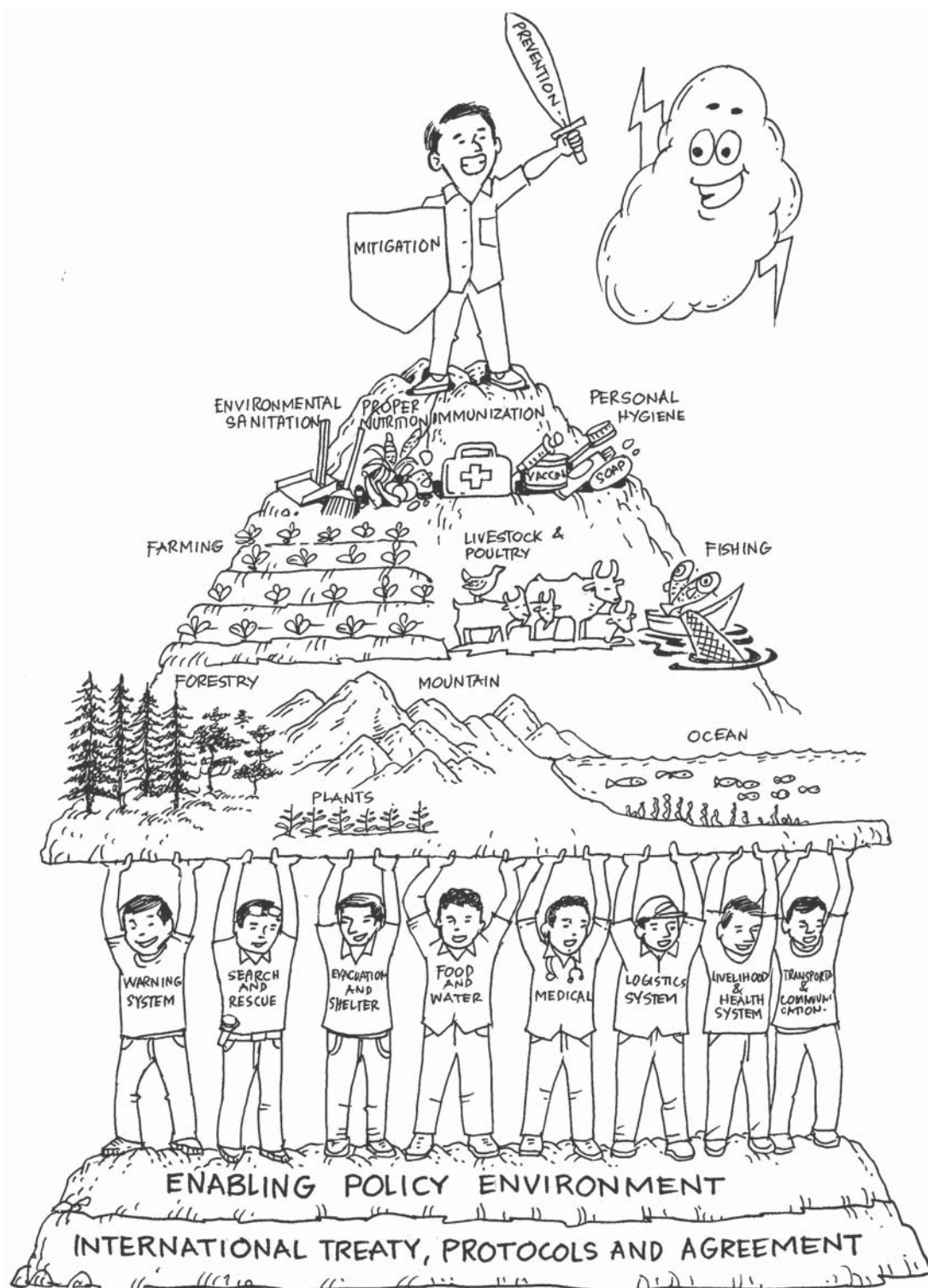
Twigg, J. 2009. The Characteristics of a Disaster Resilient Community, a Guidance Note. Version 2.

UN-ISDR, 2009. 2009 UNISDR Terminology on Disaster Risk Reduction. Geneva, Switzerland. Available at: [www.preventionweb.net](http://www.preventionweb.net)





## Attachment 1. Handout

Resilience Framework<sup>1</sup>

<sup>1</sup> Cordaid. 2013. Measuring Resilience – Using the Community Managed Disaster Risk Reduction Approach. By Rustico “Rusty” Biñas



## Resilience framework in matrix<sup>2</sup>

This table shows the various layers of the resilience framework above according to the roles and thematic representation to the element at risk. The various layers are capacities required for the element at risk to survive and bounce back from hazards and climate change.

Elements	Thematic representation	Element at risk specific measures	Hazard specific Measures	
Element at risk	The subject	Center of unit of analysis	Prevention	Mitigation
Foundation of Safety	Survivability	First level: capacity support		
Livelihood and health realm	Bouncing back	Second level: capacity support		
Ecosystem services	Supports Survivability and bouncing back	Third level: capacity support		
Community readiness	Systems and structures that help individual element at risk to survive and bounce back - transformative	Fourth level: capacity support		
Enabling policy environment	Ensuring Human Security	Fifth level: capacity support		
International treaties, protocols, call for actions	Global order	Sixth level: capacity support		

<sup>2</sup> Cordaid. 2013. Measuring Resilience – Using the Community Managed Disaster Risk Reduction Approach. By Rustico “Rusty” Biñas



## Attachment 2. Reading Material

## Linking ecosystems management and climate to disaster risk reduction<sup>1</sup>



Rapid ecosystem degradation and loss has been occurring globally since early to mid 20th century. Besides affecting biodiversity, the consequences of deterioration of environmental services such as water regulation and natural hazard regulation are also significant for human well-being.

Coastal ecosystems, for example, are among the most productive yet highly threatened systems in the world, experiencing some of the most rapid negative changes:

- About 35% of mangroves have been lost over the last two decades, driven primarily by aquaculture development, deforestation and freshwater diversion;
- Some 20% of coral reefs were lost and another 20% degraded in the last several decades through over-exploitation, destructive fishing practices, pollution and siltation, and changes in storm frequency and intensity;

Climate change results in various changes to the ecosystems. It can cause an increase in the number and intensity of hazard events that damage both people and ecosystem services. Climate change can also result in transformation of existing ecosystems, like a dry region turning into a wetland because of increased rainfall. These changes directly impact the ecosystem services on which people and communities depend. These impacts can either be positive by creating opportunities or negative by creating more losses. Either way, any change in the ecosystem services should be considered in the resilience building of the community.

**Table 1: Examples of Environmental Services provided by or derived from wetlands**

Services	Comments and examples
<b>Provisioning</b>	
Food	Provisioning of fish, fruit, wild game and grains;
<b>Fresh water</b>	Storage and retention of water for domestic, agricultural and industrial uses.
Fiber and Fuel	Production of logs, wood for fuel, peat and fodder
<b>Regulating</b>	
Climate regulation	Source of and sinking of greenhouse gases; influence local and regional temperature, precipitation and other climatic processes;
<b>Water regulation (hydrological flows)</b>	Groundwater recharge /discharge
Natural hazard regulation	Flood control, storm protection
<b>Cultural</b>	
Recreational	Opportunities for recreational activities
<b>Aesthetic</b>	Many people find beauty and aesthetic value in aspects of wetland ecosystems
Educational	Opportunities for formal education and training
<b>Supporting</b>	
Soil formation	Sediment retention and accumulation of organic matter
<b>Nutrient Cycling</b>	Storage, recycling, processing and acquisition of nutrients

Source: Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-Being: Wetlands and Water Synthesis*. World Resources Institute, Washington D.C.

<sup>1</sup> Developed by Alejandro Jimenez and Wilson John Barbon

It has been known that aside from supporting people's day-to-day livelihoods, ecosystems such as wetlands, cloud and rain forests are also important in mitigating the impacts of natural hazards. Analysis of recent disasters demonstrates the importance of habitat protection and natural resource management in decreasing our disaster risk to extreme events<sup>3</sup> and adapting to climate change.

Hence, there is a clear connection between land and ecosystem's uses and communities' risk profiles. This connection depends on landforms as well as natural and technological events affecting vulnerable communities. It has been recognized in the *Hyogo Framework for Action* (HFA) as the "underlying risk factors" that shall be addressed besides food security, diversification of income options, land use planning and rural development plans, among others.

In facilitating community managed DRR, there are two perspectives that come into play. First is the perspective of programming which is the role of government and non-government agencies. Second is the perspective of communities on how ecosystems play as an important capacity for them to survive and bounce back from hazards and climate change. Below is a matrix of such interphase and how ecosystems and climate change are important considerations in the process.

Stages of Community Managed Disaster Risk	Community Process	Program Managers/External Facilitators
Preparation	Awareness building and education campaign to increase support for CMDRR	The program should describe and assess the natural resources available to the communities they will be working with by identifying the role of ecosystem services for livelihoods and survival needs. This will allow program managers to see at the scale of ecosystems and how this plays an important role for the resilience of the target community.
Risk assessment and analysis	Undergo the process of participatory disaster risk assessment and analysis using tools that will look at the ecosystems perspective.	Program should also look closely to elements at risk that are sensitive to climate change. For instance sectors most likely affected by a damage ecosystem or a sudden change in climate conditions.  Program managers should also investigate together with the community the underlying causes of their risk that is related to ecosystems and climate.

<sup>3</sup> Modified from: Sudmeier-Rieux, K., H. Masundire, A. Rizvi and S. Rietbergen (eds). (2006). *Ecosystems, Livelihoods and Disasters: An integrated approach to disaster risk management*. IUCN, Gland, Switzerland and Cambridge, UK. x + 58 pp.





Stages of Community Managed Disaster Risk	Community Process	Program Managers/External Facilitators
Identifying DRR measures and planning	Undergo participatory planning process to formulate a long term DRR measures and DRR action plans	<p>Program managers during the participatory planning can work together with the communities in identifying measures that will protect and rehabilitate ecosystems services in order to prevent and mitigate the hazards and to increase the survivability of people. Examples can be</p> <ul style="list-style-type: none"> <li>■ Assistance for communities to design sustainable household level DRR measures concerning livelihoods</li> <li>■ Mitigating main hazards that communities identify, addressing these at their root causes, often at the landscape/ catchment scale; this might include e.g. ecosystem restoration actions;</li> <li>■ Informing communities of key environmental and climatic trends that could determine the sustainability of some DRR measures in the long term and strengthen overall community “adaptive capacity” confronting hazard events</li> </ul>
Strengthening community organizations	Identifies and strengthen a community organization that will lead and sustain the CMDRR process and practice	The program should include ecosystems knowledge and skills development for the community organizations to effectively integrate these into their activities and projects.
Evaluation and learning	Regularly conducts evaluation and learning activities to better inform future DRR actions	The program should provide regular information on key environmental and climatic trends that could determine the sustainability of some DRR measures in the long term and strengthen overall community “adaptive capacity” confronting hazard events.

The challenges faced when integrating ecosystems and climate change into DRR practice, both at the levels of the community and programming organizations, have to do with the geographical and temporal scales of analysis. These challenges force practitioners to:

- Learn how to move between scales of work as DRR interventions must be designed with a long-term perspective, and
- Consider the catchments around the target working sites and their key ecosystems;

After all, community stakeholders will be the ones identifying ecosystems’ services, which, if degraded, might threaten their lives and assets by triggering potential hazards. Hence, they will be the ones called upon to use their knowledge to wisely adapt to their changing environment, and be able to creatively deal with uncertainties brought by climate change and extreme events.



In any case, the participatory disaster risk assessment (PDRA) process should be an ideal means to provide an entry point to capture communities' relationship with their environment. Enriching various tools used in PDRA with questions aimed to capture people's perception of their terrains and climate is one way to understand the ecosystems perspective.

Only a holistic approach could help strengthen communities' resilience to disasters. Some of the characteristics of disaster resilient communities (DRC) directly dealing with the environment is highlighted in the following table. The features shared by DRC are connected with simple environmental inputs enriching the DRR process, as facilitators work along stakeholders.

Characteristic of a disaster resilient community in terms of environmental and natural resources management, including climate change	Ecosystem management inputs into DRR for resiliency strengthening
Community understanding of characteristics and functioning of local natural environment and ecosystems (e.g. drainage, watersheds, slope and soil characteristics) and the potential risks associated with these natural features and human interventions that affect them (e.g. climate change)	<ul style="list-style-type: none"> <li>■ Collect key basic geological, ecological and climate information: maps/data. Link livelihoods and existing or potential hazards based on geographical context; e.g. climate, river flows and flood prone areas; climate variability, water availability and crop production; rain patterns, land uses and landslide affected areas;</li> <li>■ Analyze and learn along with the community how ecosystems work complementing their knowledge with scientific data and linking up facts to their hazard context: e.g. climatic trends, drought and famine.</li> </ul>
<ul style="list-style-type: none"> <li>■ Adoption of sustainable environmental management practices that reduce hazard risk</li> </ul>	<ul style="list-style-type: none"> <li>■ Understanding of the geographical network to which the community belongs and the environmental and DRR implications of upstream-downstream connections;</li> </ul>
<ul style="list-style-type: none"> <li>■ Preservation of biodiversity (e.g. through community-managed seed banks, with equitable distribution system)</li> </ul>	<ul style="list-style-type: none"> <li>■ Assess local biodiversity to realize and value ecosystem services' contribution to livelihoods both in times of stability and crisis.</li> <li>■ Address what sustainable management means at the local scale and how to put it in practice using existing institutional frameworks.</li> </ul>
<ul style="list-style-type: none"> <li>■ Preservation and application of indigenous knowledge and appropriate technologies relevant to environmental management.</li> </ul>	<ul style="list-style-type: none"> <li>■ Link traditional ecological management practices and (common) resources management institutions to DRR and Climate Change Adaptation initiatives.</li> </ul>
<ul style="list-style-type: none"> <li>■ Access to community-managed common property resources that can support coping and livelihood strategies in normal times and during crises.</li> </ul>	

Source: Twigg, J. 2009. *The Characteristics of a Disaster Resilient Community, a Guidance Note. Version 2.*







# EXTERNALLY DRIVEN DRR AND CMDRR



**Duration:** 1 hour

## Description

A common understanding of the concept and process of CMDRR is crucial for an organization to make CMDRR operational. This session seeks to clarify the main differences between externally driven DRR and CMDRR.

## Learning Objectives

At the end of the session, the participants should be able to:

1. Distinguish between externally driven DRR and CMDRR.
2. Clarify the concepts and practices of CMDRR.



### Learning aids and materials

- Flipchart paper
- Marker pens
- Attachment 1. Materials for Activity 1 - Matching exercise cards (1 set) that contain the characteristics of externally driven DRR and CMDRR
- Attachment 2. Handout/Flipchart - Externally driven and Community Managed Disaster Risk Reduction

## Procedure

### Activity 1. Brainstorming on the difference between “externally driven DRR” and “community-managed” (15 minutes)

1. Start by asking, “When we say MANAGED, what does it mean?” Collect words from the participants and write them on the board. Then throw the second question: “What does community-managed mean?”
2. Explain that management functions include planning, organizing, leading, coordinating and evaluating. The term community-managed then refers to:
  - community to plan
  - community to organize
  - community to coordinate
  - community to lead
  - community to evaluate
3. Then ask the participants the definition of “externally driven”.
4. Explain that “externally driven” simply connotes that an external agency has a project in the community. The head of the community may not be the one implementing the project.

### Activity 2. Matching exercise on the characteristics of externally driven and CMDRR (45 minutes)

1. Draw on the flip chart the following table:

Characteristics	
Externally Driven	CMDRR

2. Distribute cards with written words (See Attachment 1) to the participants (2 to 4 cards per person, depending on the number of the participants). Instruct them to choose under which column the cards belong, based on the definition of community as discussed in session 1.2 of module 1, and the DRR models discussed in session 2.3 also of the module 1.
3. After the participants have posted their cards on the flip chart paper, discuss each term and adjust the card placement if necessary.
4. Synthesize the responses by inviting the participants to define/discuss the words/phrases in the matching exercise and discussing Attachment 2.

## Synthesis

CMDRR is a framework to implement a “holistic approach” to DRR as can be seen in the characteristics presented in Attachment 1. CMDRR aims to empower people and steer development towards a culture of safety.



### Attachment 1. Materials for Activity 1

Matching exercise cards to identify the characteristics of externally driven and community managed disaster risk reduction

Below are sentences or phrases that refer to either externally driven or community managed disaster risk reduction (CMDRR). Write each of them on a card, making a total of 38 cards or 19 pairs. Distribute the cards to the participants in random and ask them to select which cards fall under which column.

Ask the participants to select which of them describe externally driven and identify the corresponding characteristics of CMDRR. Refer to the matched pairs below.

Externally Driven DRR	CMDRR
Centralized	Decentralized
Target oriented	Process oriented
Low trust in people's ability	High trust in people's ability
Top-down	Bottom-up
Rigid	Flexible
Staff implement directly	Facilitating the people to implement
External guide and subsidy	Cost sharing
Technology first	Community first
Supply-driven	Demand-driven
Process owned by outsiders	Process owned by the community
External agency as key player	Community-based organization as key player
Incorporate expert's knowledge into project design and implementation	Incorporate local people's knowledge into project design and implementation
Planning by project staff	Flexible local planning
Control is in the hand of external partner agency	Control is held by the partnership of the community and facilitators
Monitoring and evaluation by professionals	Participatory monitoring and evaluation
Central control	Local control
Dependency	Self-reliance
Managed by external agency	Community management
Functional participation	Interactive participation

## Handout. Explanation on the cards

**Centralized and Decentralized:** In Externally driven DRR, though the community participates, decision-making and management of DRR programs are in the hands of an external agency, operating under centrally defined standard procedures. Conversely, CMDRR evolves around community participation which allows the community to make decisions and manage DRR programs according to the varied local context. It does not evolve around centralized operating standards.

**Target oriented and process oriented:** While Externally driven places emphasis on achieving targets, i.e. number of cyclone centers constructed, the CMDRR places emphasis on processes, i.e. how it was constructed, how the planning and implementation were done, whether participation and ownership were factors in the achievement of the target.

**Low and high trust in people's ability:** In Externally driven DRR, the successes and failures of the DRR program are viewed as the responsibility of the external agency. Thus, the staff of the external agency often tends to mistrust the people's ability to decide and manage. In contrast, CMDRR believes that the local community has the ability to make the right decisions and manage the DRR program based on the ways and aspirations of the community.

**Top-down and Bottom-up:** In Externally driven, the DRR projects/program are first designed by the external agency in which the latter seeks the participation of the community within the set project framework. In this approach, decisions and directives flow from the top to the bottom. In contrast, in CMDRR, the external agency first facilitates community organizations in instituting community action planning and later, compiles and prepares its own level accompaniment plan based on community suggestions. In this approach, the process flows from bottom up.

**Rigidity and flexibility:** In Externally driven, because the project and its targets are identified first by the external agency before the community action planning, there is little room left for planning the varied needs of the community. This leads to a rigid implementation by the external agency of the project. In contrast, CMDRR can employ greater flexibility based on community needs as it encourages community organizations to move based on their own action plan.

**Direct implementation by project staff vs facilitating community implementation:** In Externally driven, through the application of several methods and tools, community participation is solicited in the implementation of different project activities. But in this approach, it is actually the staff of the external agency that acts as direct implementor and simply calls on the people to participate in the implementation. In CMDRR, the community organizations play a direct role in implementing DRR activities (based on their action plan) in which the external agency plays a facilitating role to enable the community organization to implement the activities.

**Subsidy vs. cost sharing:** To make the external agency's project functional, the externally driven often provides subsidy to the community. Provision of subsidy negatively affects mobilization of community resources. On the other hand, CMDRR promotes the concept of self-reliance to the community, fostering community resource mobilization and cost sharing of DRR program operations.

**Technology first vs. community first:** Externally driven DRR programs are designed mostly by professionals employed by external agencies, thus, it relies primarily on technology transfer as the means of solving problems. This is due to two factors: first, the academic orientation of professionals and, second, their inadequate understanding of community relationships and local socio-cultural context. Conversely, CMDRR believes that technology itself cannot solve problems if it is not community friendly and the community does not have control over it. Before any technology transfer, community relationships and socio-political implications are analyzed first.







**Supply driven vs. demand driven:** Under Externally driven, once the project has been developed, the staff of the external agency become the force that supply the ideas to the community throughout the project duration. It then becomes difficult to incorporate any new demands and needs expressed by the community. On the other hand, CMDRR follows a reversed approach. The community organization first identifies the community's needs and afterward prepares the action plan. It is only then that it presents the support it needs from the external agency.

**Process owned by outsiders vs. community ownership:** In Externally driven, the external agency plays a direct implementation role so the community does not own the process. In CMDRR, the community organization serves as the main actor in the planning, implementation and evaluation. Thus, there is community ownership of the process.

**External agency as key player vs. community-based organization as key player:** See explanation in the "Process owned by outsiders vs. community ownership".

**Incorporation of expert's knowledge vs. incorporation of local people's knowledge in project design:** The centralized and standard planning system of externally driven DRR relies on the "experts" in the external agency to implement the project. While in CMDRR, it is the community and their organization that takes charge of implementing DRR activities, allowing local community knowledge to be incorporated with the experts' knowledge.\

**Planning by project staff vs. flexible local planning:** See explanation under "Direct implementation by project staff vs. facilitating community implementation".

**Control over the partner agency vs. cooperation on partnership basis:** In Externally driven, it is the external agency that directs the project and the community organization usually finds it difficult to establish a genuine and equal partnership with the agency. A patron-client relationship usually prevails. On the other hand, in CMDRR, although the external facilitating agency holds the accompaniment plan, the actual operation is developed and controlled by the community organization. This process keeps the external agency from dominating the partnership and helps foster a more cooperative relationship.

**Central control vs local control:** The centralized systems of standard planning and operation of Externally driven encourages central control while decentralized local planning and operation of CMDRR encourages local control on the process.

**Dependency vs. self-reliance:** Since the control on ideas and operations are in the hands of the external agency, in the end it fosters dependency on the part of the community and its organization on the external agency. In CMDRR, the community organization operates the project which helps develop of self-reliance and potential for project sustainability.

**Managed by external agency vs. community-managed:** In Externally driven, the external agency may base in the community but it continues to manage the project. On the other hand, in CMDRR, the community and the organization manage the project they themselves designed and developed.

**Functional participation vs. interactive participation:** In Externally driven, the external agency involves community participation to make its project functional based on a pre-decided principles by the external agency. Participation thus serves merely as tool for making the external agency's project functional. In CMDRR, the external agency and the community, through mutual interactions, determine the principles of participation. Both the external facilitating agency and community participate in the process based on those mutually agreed principles.

## Attachment 2. Reading Material

## Externally driven and Community Managed Disaster Risk Reduction



Externally Driven		CMDRR
Types of community participation	Passive: community receives project with pre-determined objectives and are dependent on outsiders' decisions; Functional: participating in project activities e.g. building risk reduction measures	Interactive: People are involved in the analysis, need assessment and planning; people and partner agency are equally involved in decision making.
Relationship between the external organizations and community	External Agency: Subject Community: Object	No subject - object relationship
Functional relationship between community and external agency	External agency implements and the community participates in project activities.	Community implements and external agency facilitates
Approach to community's management capacity development	Transfer- oriented interventions (like training workshops) flowing from the external agency to the community	Application of experiential learning cycle.  Two way learning: community to organizations and vice versa.
Assumptions about external agency and community as generating learning	External professionals provide the directions, including what the community should know, and they are also in charge of building the community	Community and external professionals are co-learners. There are many ways of learning and in the process of learning and doing, they "co-construct" each other
Approach to research and action	Research and action are separate	Research and action are simultaneously.
End result	Growth of external agency's projects, the people participate but dependency is perpetuated	Growth of community organization's projects in which it is capable of running CMDRR process without being dependent on external agency.

Adapted from: Zenaida, G. 2004. Community Based Disaster Risk Management: A Frame That Holds, a frame that Works' in Workshop Proceedings of Third Disaster Management Practitioners' Workshop for South Asia. Asian Disaster Preparedness Center, Bangkok, Thailand.

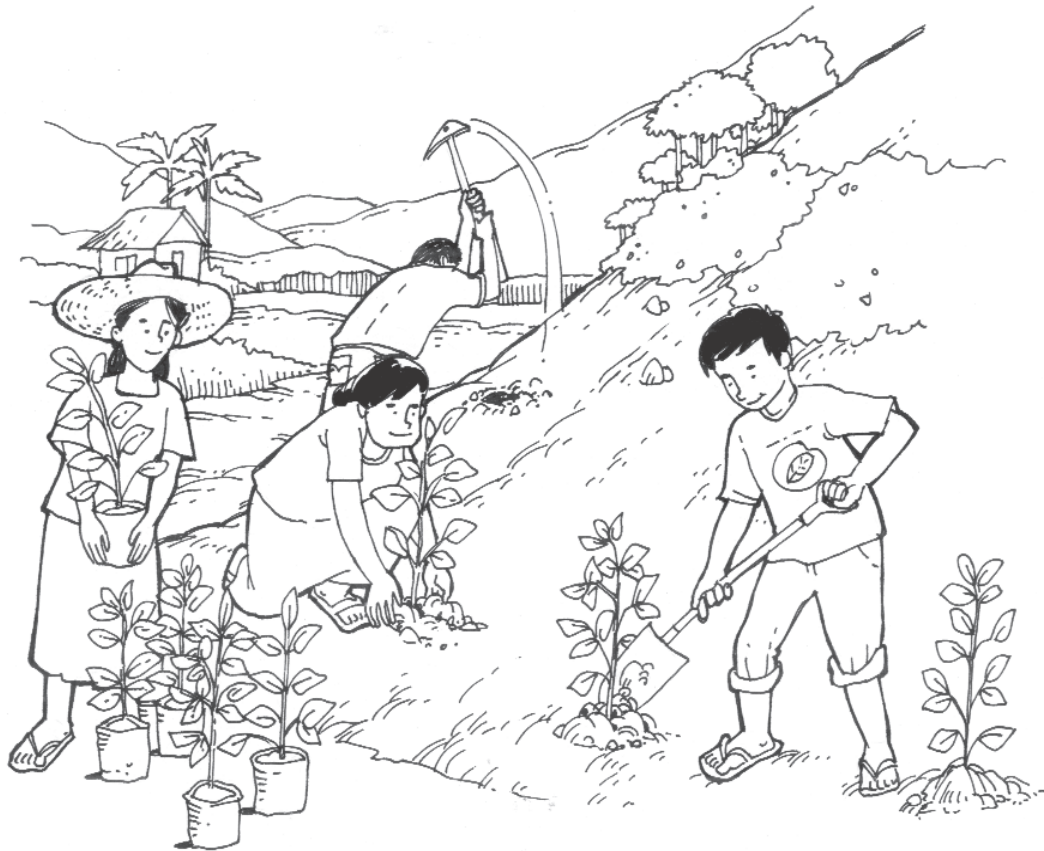
Saha, S. & Epper, P. 2002. Facilitators Manuals: Community Management Promotion in Development (2000), in Water and Sanitation Partnership Project. Joint Publication of DASCOH, SDC, South Asia Regional water sanitation group of UNDP and WB – Bangladesh.

Hosking, D. M. (2002). "Constructing Change: A social constructionist approach to change work (and beetles and witches)". Published version for inaugural address, Tilburg University, Netherlands, June 2002. Web published [http://www.geocities.com/dian\\_marie\\_hosking/](http://www.geocities.com/dian_marie_hosking/).





# CMDRR METHOD AND PROCESS



**Duration:** 2 hours

## Description

This session introduces the CMDRR method and process as an integral element of development management. It walks the participants through the purpose, aims and various phases of CMDRR according to its triadic dimension of process facilitation, solidarity development and task achievement, marked by people's participation. It also directs the participants to focus on the role of community members as development managers and of development workers as CMDRR facilitators.

## Learning Objectives

At end of the session, the participants should be able to:

1. Describe the CMDRR method and process;
2. Acknowledge the distinct quality of people's participation that serves as the development mark of CMDRR; and
3. Determine the role of the people in the community and the reciprocal role of development workers in CMDRR.



### Learning aids and materials

- Newsprint
- Markers
- Masking tape
- Colored meta cards
- Attachment 1. Handout/Flipchart of diagrams 1, 2, 3, 4 and 5
- Attachment 2. Handout/Flipchart of diagram 6
- Attachment 3. Handout/Flipchart of diagram 7
- Attachment 4. Handout - Case Story: Manila Bay
- Attachment 5. Handout - Case Story: Water for Ratnapur
- Attachment 6. Handout - The CMDRR method and process
- Attachment 7. Handout/Flipchart - People's participation as the distinguishing development mark of CMDRR
- Attachment 8. Handout/Flipchart - CMDRR: Integral to development management

## Procedure

### Activity 1. Case analysis on the stages in CMDRR process (1 hour 15 minutes)

1. Invite one of the participants to read the case study titled, “Manila Bay”. (Attachment 4)

#### Note to facilitator

- The facilitator may opt to use another case depending on which one is more relevant to the context of the participants.



2. Divide the participants into groups. Ask them to analyze the case and prepare a 10-minute presentation using flip chart papers. Tell them they have 45 minutes to finish the task.
3. Invite participants to re-assemble in plenary and do their presentations. Take note of the key ideas that are common and/or different from the presentations and items that need clarification.
4. Ask for clarification of any item as necessary.
5. Summarize the common and distinct points from the presentations and relate them to the input on the method and process of CMDRR, using flipcharts (Attachment 1) to facilitate the discussion and the handout on CMDRR method and process (Attachment 6) for reference. (30 minutes)

### Activity 2. Input on people's participation as the distinguishing mark of CMDRR (30 minutes)

1. Using ideas from their earlier presentations as take off point, ask participants the following interrelated aspects of people's participation:
  - Participation by WHOM?
  - WHAT is people's participation?
  - WHY should people participate?
  - HOW do people participate?



2. Give input, using the flipchart (Attachment 2) and handout on people's participation (Attachment 7) as references.

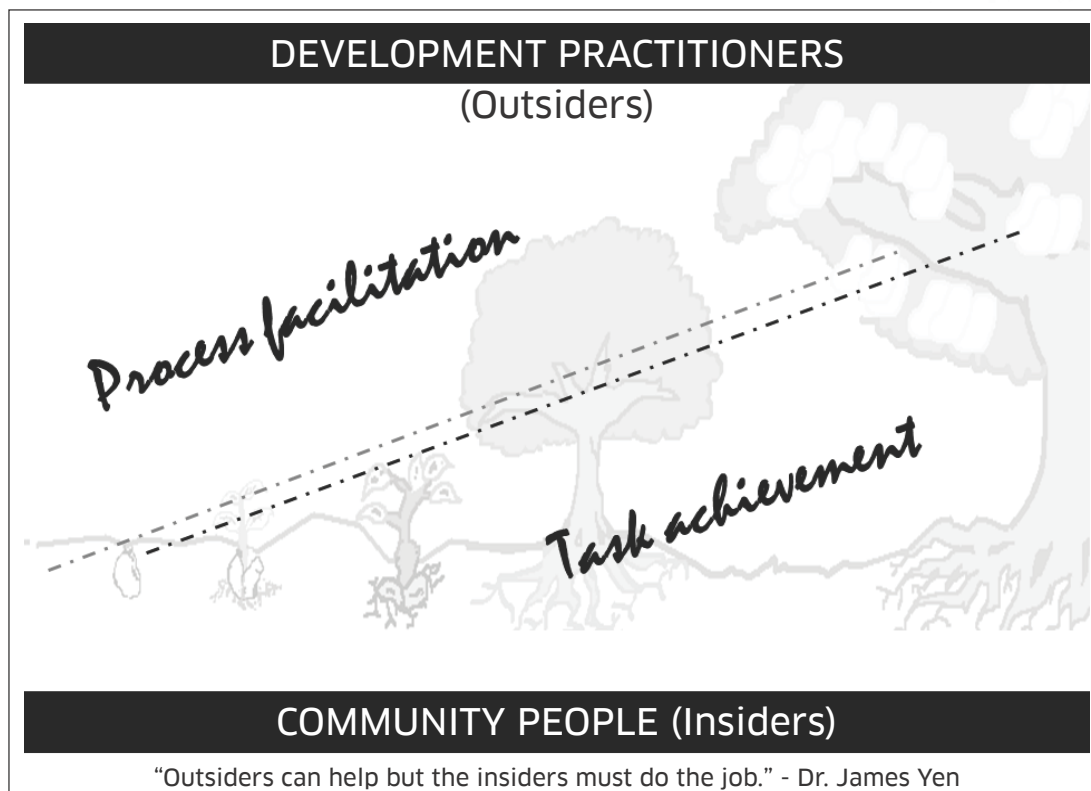
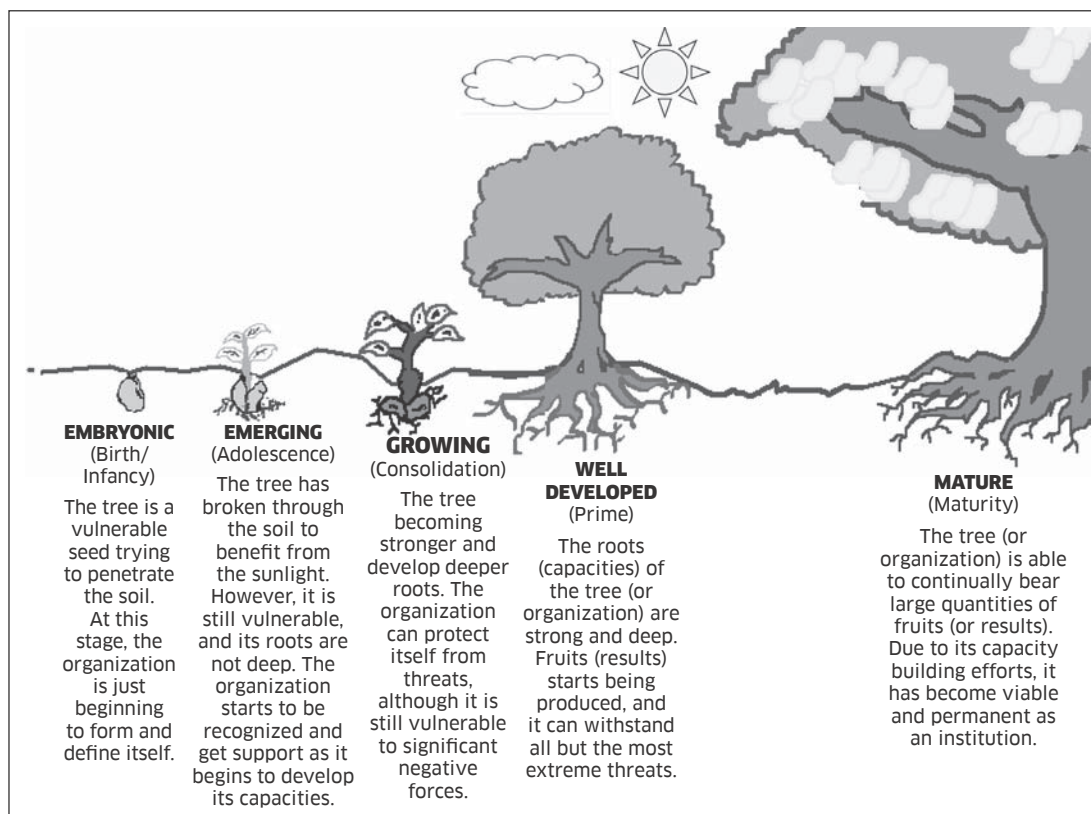
### **Synthesis (10 to 15 minutes)**

Underscore the following key points:

- The people (insiders) as development managers being the prime movers of change
- The development workers' (outsiders) facilitating role being agents of learning

Refer to Attachments 3 and 8.

## Attachment 1. Handout/ Flipchart

Diagram No. 1: **Phase-over**Diagram No. 2: **Solidarity Development (Stages of organizational development)**

## Handout/Flipchart

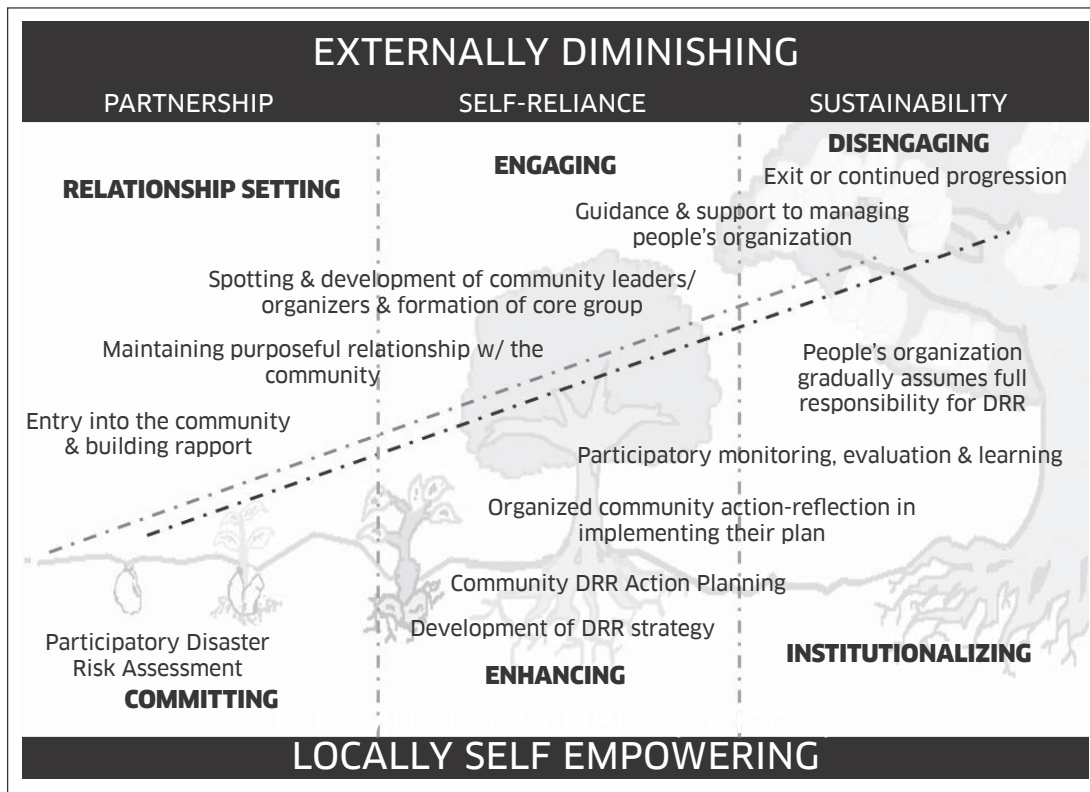
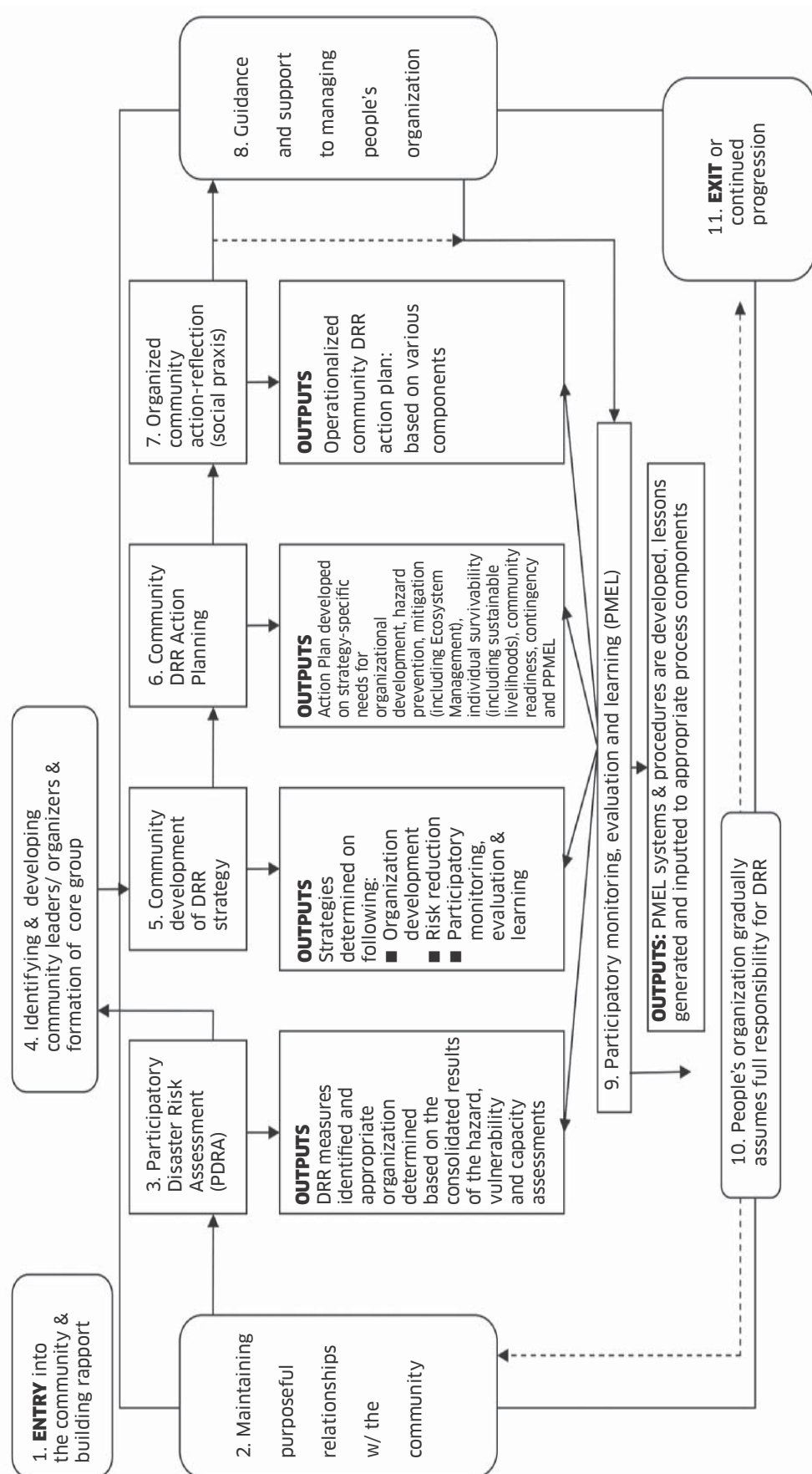


Diagram No. 3: **Phase-over: Process of strategic positioning, and reciprocal interface of functions & tasks between outsiders & insiders**

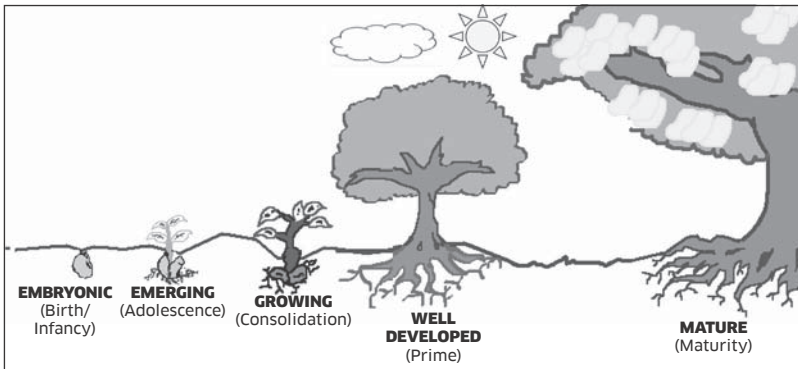
## Handout/Flipchart

Diagram No. 4: Tasks associated with the process facilitation &amp; task achievement – A schematic presentation



**Handout/Flipchart**

Diagram No. 5

ENTITY	Development practitioner	Community people
STATUS	Outsiders	Insiders
ROLE	Development facilitators as agents of learning	Development managers as prime movers of change
PHASE OVER STRATEGIC POSITIONING	Externally diminishing 'LET GO' the inherent powers of people	Locally self-empowering 'OWN' the process and the program
FUNCTIONS ACCORDING TO PHASE-OVER PROCESS	PROCESS FACILITATION DIMENSION	TASK ACHIEVEMENT DIMENSION
	Relationship setting	Committing
	Engaging	Enhancing
	Disengaging	Institutionalizing
TASKS	<p>Entry into the community &amp; building rapport</p> <p>Maintaining purposeful relationship with the community</p> <p>Identifying &amp; developing community leaders/organizers &amp; formation of core group</p> <p>Guidance &amp; support to managing people's organization</p> <p>Exit or continued progression</p>	<p>Participatory disaster risk assessment</p> <p>Community development of DRR strategy</p> <p>Community DRR Action Planning</p> <p>Organized community action-reflection in implementing their plan</p> <p>Participatory monitoring, evaluation &amp; learning</p> <p>People's organization gradually assumes full responsibility for DRR</p>
OUTCOME OF THE INTERFACE	 <p>(Developmental stages of the gradual emergence of a viable people's organization for DRR)</p> <p><b>SOLIDARITY DEVELOPMENT DIMENSION</b></p>	
GUIDING PRINCIPLES	Partnership Self-Reliance Sustainability	
UNDERLYING PHILOSOPHY	People-centered and participatory development philosophy imbued with integrity, shared responsibility, transparency and accountability	

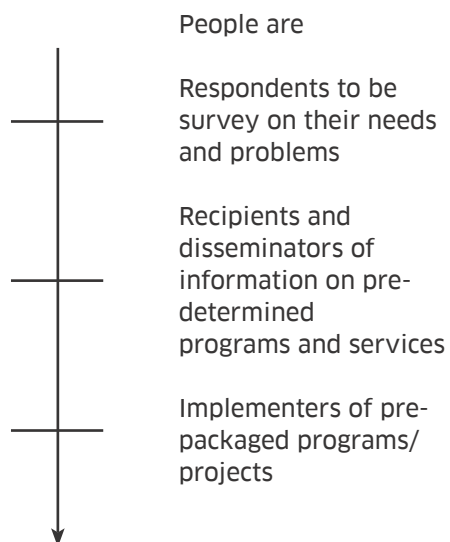




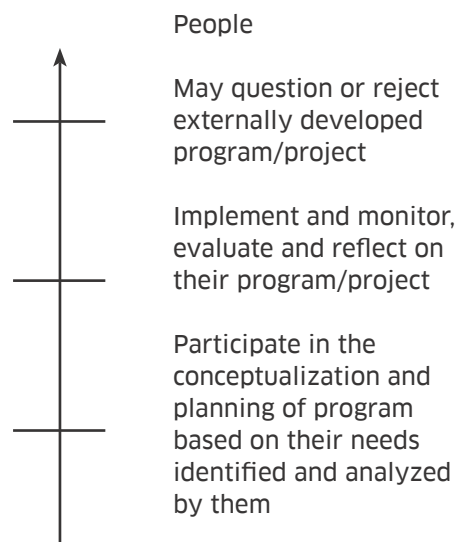
## Attachment 2. Handout/Flipchart

Diagram No. 6: **People's Participation**  
**Approaches to Managing Development Initiatives**

Top-down approach:



Bottom-up approach:



## Attachment 3. Handout/Flipchart



## Role of the People in the Community as Development Managers Being the Prime Movers of Change

PEOPLE-PROGRAM RELATIONSHIP			
O	Ownership: Program as concrete expression of the people's initiative, capacity & aspirations		
W	Winning program/ project	A	Access & control
		U	Use of the inner resources
		R	Relevant
		A	Attainable
N	Natural: Blends with the community's life rhythm		

## The Development Workers' Facilitating Role Being an Agent of Learning

WORKER-PEOPLE RELATIONSHIP	
<b>L</b>	Lasting
<b>E</b>	Energizing: Release of inherent powers
<b>T</b>	Temporary yet lasting, or continuing but progressing
<b>G</b>	Goal-oriented
<b>O</b>	Others-centered vs. self-centered

Diagram No. 7





## Attachment 4. Handout

### Case Story: Manila Bay<sup>1</sup>

Assume that you belong to a development agency which has decided to work with several fishing villages in the three adjacent municipalities of Parañaque, Bacoor and Cavite along the coastal areas of Manila Bay<sup>2</sup>. You have started the work for about a month now. Based on your preliminary social inquiry, below is a brief community profile which describes the common situation of these villages:

- The main source of livelihood in these villages is fishing.
- There are two types of fishing: (1) Use of light, small and motorized or non-motorized fishing boats that can operate only within the municipal waters. It involves poor fisher folks who reside in the villages. They use hook and line and/or nets. Many of them live in shanties while some are in stilt houses standing at the seashores; and (2) use of heavy and big fishing boats that can traverse far away seas. It involves the big commercial fishers who are mostly non-residents. Most of them use trawl and some are reportedly using fine-meshed nets which are illegal. They violate the law that disallows them to operate within the municipal waters.
- The marine resources in the bay are rapidly decreasing due to (1) the rampant use of illegal fishing methods like dynamite fishing which also involves some small fisher folks, and the encroachment of the trawl<sup>3</sup> fishers; and (2) pollution.
- The national government has initiated a reclamation project along the coastline that is meant to ease the traffic problem in the city. The project is being implemented by a well-known corporation. It was started without consulting those who would be adversely affected, particularly the fisherfolk. What used to be the seashores have now turned into mud. The poor fisherfolk are now forced to walk through the mud to push their boats to the sea. Further, the waterways of these villages are gradually being clogged. The project plan does not provide any safety net for them.

Your agency is known for enabling poor communities to develop sustainable livelihood. Hence, a group of small fisher folks has approached you asking for a loan so that they could motorized their boats and/or to buy new sets of fishing gears.

Questions for analysis:

1. Would you help them secure loans or not? Support your answer.
2. If the fisher folk ask for your guidance, relying on your experience in working with communities, describe how you envision this community can effectively manage their situation in a participatory manner through the following:
  - State the steps the community should take.
  - Identify the stakeholders who need to participate in which step, why they need to participate, and how they should participate.
  - Clarify the role of the people in the community and reciprocal role of the outsiders in this process.

In the absence of other background information, you can make your assumptions as necessary to be able to answer the questions above. You have 45 minutes for group discussions and for preparation of a 10-15 minute presentation on a flipchart.

<sup>1</sup> Developed by Orly I. Buenviaje. The case is based on the situation that occurred during the Marcos regime in the Philippines.

<sup>2</sup> Manila is the capital of the Philippines, where the seat of the government is located. The Philippines is regularly visited by several typhoons particularly during the rainy season which starts in June until December. Earthquake, although very rare, may also happen.

<sup>3</sup> Trawl is a fishing technology which proves to be highly effective in terms of increased fish catch but quite destructive to marine life particularly if it operates at the municipal water.



## Attachment 5. Handout

### Case Story: Water for Ratnapur

The Center for Village Development (CVD) found that in their project area, some women had to walk five miles twice daily to fetch drinking water. CVD obtained enough money to install 10 tubewells in Ratnapur village to help these women. They carried out the following activities:

1. Surveyed the population and the drinking water facilities in the village.
2. Selected tubewell sites in the village.
3. Consulted engineers about appropriate tubewells for the selected sites.
4. Purchased materials for the tubewells and had them installed.
5. CVD organized a village meeting and handed over the tubewells to the community.
6. Six months later, the Chief Executive of CVD was in Ratnapur and saw that most of the tubewells were out of order due to lack of maintenance. He was very upset about the result of the project.

Questions for analysis:

1. Why did the tubewell project end up this way?
2. If things had to be done differently in a sustainable manner, using your experience in working with communities, describe how you envision this community can effectively manage its situation in a participatory manner through the following:
  - State the steps the community should take.
  - Identify the stakeholders who need to participate in every step, why they need to participate, and how they should participate.
  - Clarify the role of the people in the community and reciprocal role of the outsiders in this process.

In the absence of other background information, you can make your assumptions as necessary to be able to answer the questions above. You have 45 minutes for group discussions and for preparation of a 10-15 minute presentation using a flipchart.

<sup>1</sup> Developed by Shayamal K. Saha





## Attachment 6. Handout

### The Community Managed Disaster Risk Reduction (CMDRR) Method and Process<sup>1</sup>

#### CMDRR being integral to development management

Viewing CMDRR as integral to development management makes it both a method and a process which intersperse with one another. The process of CMDRR evolves through conscious, deliberate and purposive method of people working together for a shared development path. People plan and work to make it happen. Done with utmost care, it entails a slow and painstaking capacity development process of releasing and enhancing the inherent powers of people for self-development.

#### Purpose, triadic dimensions and aims of CMDRR

The interspersing method and process of CMDRR signifies a distinct way of doing development work that synergizes through phase-over<sup>2</sup> its triadic dimensions of process facilitation, solidarity development and task achievement. The purpose is ultimately to bring about a resilient and safe community, characterized by people's participation, particularly by its most vulnerable or disadvantaged members. It has the following elements:

- Dynamic presence of a viable people's organization championing the community management of its development; and
- High level of survivability and readiness of the community to hazard events.

**Process facilitation** focuses on nurturing the development process. It is concerned with a sustainable working relationship that helps consolidate the community while accomplishing its task of risk reduction. It aims for a viable people's organization committed to disaster risk reduction and facilitates the shift of the communities from being disaster victims to development victors. It is an organization that is rooted in concrete social realities, propelled by a people-centered and participatory development philosophy and imbued with integrity, shared responsibility, transparency and accountability.

**Solidarity development** focuses on the "community-managed" aspect of CMDRR – enhancing the quality of interactions between and among the different stakeholders of development in the community. It is concerned with nurturing life energies that equalize power relations, bind the group together cohesively in the process of making decisions, dealing with conflicts, resolving issues and maintaining individual and collective self-respect while addressing or bouncing back from hazard events. It aims to enable the people to develop their organization through purposeful individual, group and community experiences.

**Task achievement** focuses on the disaster risk reduction aspect of CMDRR. It is concerned with engaging the community in the whole cycle of participatory strategy development for disaster risk reduction. It aims to develop the capacity of the people to develop and manage effectively and efficiently a DRR program or project.

<sup>1</sup> Prepared by Orlando I. Buenviaje, DSD. Former Program Specialist on Community Mobilization, Regional Center for Asia, International Institute of Rural Reconstruction Orly.buenviaje@gmail.com

<sup>2</sup> Phase-over refers to a process of enabling the people to gradually assume full responsibility of DRR through capacity development.



## Phase-over

There are three basic approaches to managing development. They are characterized by the relationship between the external and the local entities, also known as outsiders and insiders, respectively.

1. A **take-over** of the whole development process by the outsiders. This usually creates a cycle of dependency on the part of the insiders on the outsiders.
2. A **turn-over** of the development package of initiatives and resources at the end of the process by the outsiders to the insiders. This typically leads to a gap in the commitment and capacity of the latter upon the former's withdrawal.
3. A **phase-over** of development responsibility between insiders and outsiders through a friendly yet purposeful handholding process upon entry until exit or continued progression. It is marked by the growing local ownership of development through people's participation and steady letting go by external development stakeholders through local capacity development.

The CMDRR adopts the third approach which recognizes the people's (insiders) role as development managers being the prime movers of change and, the development practitioners (usually outsiders) facilitative role being agents of learning.

The various diagrams illustrate the phase-over.

Diagram no. 1 shows two diagonal lines representing the progressive nature of the relationship between the development practitioners and the community. The dimension of the decreasing process facilitation of the outsiders is delineated by the space covered by upper diagonal line. The task achievement dimension of the growing commitment and ability of the community to perform a deepening and expanding shared responsibility of managing DRR is delineated by the space covered by lower diagonal line. The metaphor of the tree at the background presents the developmental stages of the organization<sup>3</sup> corresponding to the solidarity development dimension. Diagram no. 2 contains a brief explanation of these stages.

Guided by the principles of partnership, self-reliance and sustainability, the phase-over goes through a process of strategic positioning across the three interwoven and cumulative phases. (See diagram no. 3.) Each phase suggests a reciprocal interface of functions between two primary entities: the development practitioners' (outsiders) competency-enhancing initiatives toward local self-empowerment and the people's (insiders) responsibility-embracing initiatives toward externally diminishing support.

Phase I: Relationship Setting – Committing

Phase II: Engaging – Enhancing

Phase III: Disengaging – Institutionalizing

In contrast to the process of “step-by-step sequence” that usually fails to take into account actual needs, these phases are viewed as “ingredients.” This means that while moving from the first phase toward the next, the interfacing goes back and forth as demanded by the situation until the last phase is accomplished.

<sup>3</sup> The tree analogy adapted from Gubbels, Peter and Koss, Catheryn (2000), FROM THE ROOTS UP Strengthening Organizational Capacity through Guided Self-Assessment, World Neighbors, Oklahoma City, Oklahoma, USA.



## Process of phase-over

“Outsiders can help but the insiders must do the job.” - *Dr. James Yen*

Within the three interwoven phases are the corresponding tasks associated with the reciprocal interfacing of the process facilitation by outsiders and task achievement by insiders, through which a viable people's organization for DRR eventually emerges. The schematic presentation of these tasks (Diagram no. 4) serves to supplement the preceding phase-over diagrams.

In practice, these various tasks intertwine as trust and a purposeful working relationship between the community and development workers advance. Though the tasks are presented sequentially, it does not mean that a task has to be finished before moving on to the next. The community and development workers should proceed from where their relationship is at a given time within the three phases.

## Phase I: Relationship Setting – Committing

At this stage, it is the development practitioners who set the tone of the relationship with the community, which is carried over to the succeeding phases. The task is to develop a shared understanding and mutual appreciation of the purpose and process of the envisioned partnership as well as the roles each entity founded on mutual knowledge, respect, trust and commitment to help. It is meant to generate an affirmative response from the people through their expanding participation – an explicit expression of their growing commitment to the cause of CMDRR.

### 1. Entry into the community and building rapport

One can argue that CMDRR is something that is yet to be realized in as far as the current reality of development work is concerned. While there are concrete examples of community development efforts showing interactive participation and/or self-mobilization, there are still so much to be done to achieve the CMDRR that has been envisioned. It is in recognition of this fact that the process facilitation being done by insiders (people from the community) can be seen as something quite ideal. Development workers from outside can temporarily fill this gap by coming into the community quietly or with low profile and assist the community in facilitating and achieving CMDRR.

Beyond mere physical presence, entering into the community means establishing a friendly yet purposeful relationship. The aim is to get community sanction and commitment to engage in a partnership with the development workers for CMDRR. It involves:

- a courtesy call to the formal and informal leaders of the different community stakeholders who were identified even before entry;
- introducing the organization which the development workers represent; and
- clarifying the goals of CMDRR, role of the community and reciprocal role of development workers.

Entering the community entails development workers immersing themselves in the community life. Immersion is a cumulative process of integrating oneself in the community life. It starts upon entry of the development workers until their exit from the community, or is continued to progress if the development organization opts to further their professional working relationship. This immersion aims to: (a) develop understanding and appreciation of the people's lives; (b) gain mutual respect and trust; and (c) build or reinforce the confidence of the people, particularly the poor and the marginalized, and their inherent ability for self-development and collective strength.

## 2. Maintaining purposeful relationship with the community

Throughout the phase-over process, it is imperative that development workers maintain purposeful relationships with the diverse and conflicting parties in the community. It entails being non-partisan and establishing communication with the various interest groups.

## 3. Participatory disaster risk assessment (PDRA)

Once trust has been established, the people are ready to be engaged in the four interrelated activities of PDRA. The PDRA results are used as basis for DRR strategy and serves as a reference for participatory monitoring, evaluation and learning.

### 3.1 Community hazard assessment

This identifies the threats and helps the community to understand the nature and behavior of specific hazards. The assessment brings out information on the characteristics of hazards, specifically warning signs and signals, forewarning, speed of onset, frequency, period of occurrence and duration.

### 3.2 Community vulnerability assessment

Vulnerability analysis is the process of estimating the susceptibility of “elements at risk” in the community to various hazards. It identifies the segment or groups community most at risk, thereby identifying the priority target participants for CMDRR.

### 3.3 Community capacity assessment

Identify the strengths and resources present in individuals, households and the community to cope with, withstand, prevent, prepare for, mitigate or quickly recover from a disaster. Coping means managing the resources in adverse situations.

### 3.4 Disaster risk analysis

This refers to the assessment of the hazard, vulnerability and capacity assessment findings and subsequently drawing conclusion regarding the degree of disaster risk. It serves as a basis for recommending appropriate disaster risk reduction measures. It is also at this point where the community decides on the appropriate form and substance of the organization that is required to champion the mission of DRR.

The use of participatory methods and tools mediated by the language of the ordinary people can enhance their participation and help diminish power differences among stakeholders. (See separate page for an illustration situating the use of the Participatory Rural Appraisal [PRA] or Participatory Learning Action [PLA] tools within the CMDRR process).

## 4. Identifying and developing community leaders and organizers and formation of core group

Recognizing the role of outsiders as mere facilitators and insiders (people in the community) as the development managers, potential leaders (both formal and informal) and organizers are identified from among the ranks of different stakeholders, particularly the most vulnerable groups. The people discern for themselves their own definition and criteria for selection of leaders, based on their vision for their community and organization. The development of community leaders/organizers grows and deepens as the partnership between community and development workers move through the succeeding phases. This array of leaders and organizers will form the core of people that will serve as a solid base for the community organization.





## Phase II: Engaging-Enhancing

Based on the results of the participatory disaster risk assessment, the community develops its DRR strategy, formulating an action plan and employing the organized community-action-reflection method. Aimed to build self-reliance, it is an experienced-based learning process by which the community enhances the core competencies that would consolidate the organization and create positive impact in the community. The development workers provide guidance and support by engaging the core group to manage their emerging organization through its various stages of development.

### 5. Community development of Disaster Risk Reduction strategy

This is the process by which the community enhances its ability to determine the necessary DRR measures which include the following:

- Organizational development
- Disaster risk reduction
- Participatory monitoring, evaluation and learning

### 6. Community DRR action planning

The community identification of the disaster risk reduction strategy is followed by a development of the community action plan, to be executed at a specified time. The community action plan consists of the following components:

- Organizational development
- Community development
- Contingency

Complementation between small group discussions and general assembly while equalizing power relations

It is practical not to expect all the members of the community to take part in undertaking the task numbers 3 to 5. They are done in small manageable sizes for greater interaction and deeper social discourse. The outputs from the small groups are presented to a general assembly for feedback and validation. If necessary, the interactions between the poor and the privileged segments of the community are preceded by a separate session that aims to equalize power relations. The session with the poor intends to develop their self-confidence while the session with the rich or privileged serves to instill a sense of humility and openness.

### 7. Organized community action-reflection (social praxis<sup>4</sup>)

This is when the organization tasked to champion the mission of DRR mobilizes as many members of the community as possible to implement the DRR measures. To develop a shared sense of purpose and direction, reflections are interlaced with mobilizations to give the people a venue to articulate the values underlying their participation. This experienced-based process of action-reflection allows people to discover and internalize the meaning of integrity, shared responsibility, transparency and accountability, and other socially-desired values rooted in their concrete reality.

### 8. Guidance and support to managing people's organization

Development practitioners enhance the quality of interactions between and among the different stakeholders towards a more equal power relations, increased group cohesion, sound

<sup>4</sup> Praxis is a word coined by Paulo Freire, a famous Brazilian educator, to refer to 'action-reflection' as opposed to the extremes of 'verbalism' and 'activism'.



decision-making, transformative conflict management and efficient resolution of issues associated with the growth of the organization.

## 9. Participatory monitoring, evaluation and learning

When the community arrives at the Risk Assessment Analysis and develops the DRR measures, it also puts in place a monitoring, evaluation and learning system. The system, which starts upon implementation of the action plan, allows the community to learn as it monitors the progress of the work and community organization; identifies the strengths and weaknesses, external threats and opportunities; and determines achievements. It involves assessing the organization's efficiency, effectiveness, relevance and resource viability. It is a process that includes celebrating successes and embracing errors, and drawing lessons to guide future actions.

## Phase III: Disengaging-Institutionalizing

At this stage, efforts to ensure sustainability are undertaken by enabling the organization to become deeply rooted into the rationale and dynamics of CMDRR.

## 10. People's organization gradually assumes full responsibility for DRR

Through purposeful engagement of the core group and other members of the community organization, the people's capacity is enhanced to eventually assume responsibility of facilitating the process and managing the community's disaster risk reduction program.

Tasks 5 to 9 are continued in this phase. An organizational capacity assessment consistent with the framework used in the community assessment during phase 1 and in the light of the life cycle of an organization is undertaken. A comparative analysis between baseline data and progress achieved by the community will provide insights into the gains and gaps. This analysis will determine if an intervention plan is needed preceding the eventual exit or continued progression of the working relationship.

## 11. Exit or continued progression

Taking off from task number 9, the people's organization works to maintain a purposeful relationship with the whole community. Subsequently, the development practitioners move on to a consultancy arrangement as they exit from the community, or to a continued progression if they opt to remain.







## SUMMARY MATRIX OF THE CMDRR METHOD AND PROCESS

ENTITY	Development practitioner	Community/people
STATUS	Outsiders	Insiders
ROLE	Development facilitators as agents of learning	Development managers as prime movers of change
PHASE OVER STRATEGIC POSITIONING	Externally diminishing 'LET GO' the inherent powers of people	Locally self-empowering 'OWN' the process and the program
FUNCTIONS ACCORDING TO PHASE -OVER PROCESS	PROCESS FACILITATION DIMENSION	TASK ACHIEVEMENT DIMENSION
	Relationship setting	Committing
	Engaging	Enhancing
	Disengaging	Institutionalizing
TASKS	Entry into the community and building rapport Maintaining purposeful relationship with the community Identifying and developing community leaders/organizers and formation of core group Providing guidance and support to people's organization Exit or continued progression	Participatory disaster risk assessment Development of DRR strategy Community DRR Action Planning Organized community action-reflection in implementing their plan Participatory monitoring, evaluation and learning People's organization gradually assumes full responsibility for DRR
OUTCOME OF THE INTERFACE	(Developmental stages of the gradual emergence of a viable people's organization for DRR) SOLIDARITY DEVELOPMENT DIMENSION	
GUIDING PRINCIPLES	Partnership Self-Reliance Sustainability	
UNDERLYING PHILOSOPHY	People-centered and participatory development philosophy that promotes integrity, shared responsibility, transparency and accountability.	

The following credo of IIRR mirrors the guiding principles and strategic positioning of CMDRR.

Credo of Rural Reconstruction	
Creed	Action-Reflection Praxis
Go to the people Live among them.	Neighbor
Learn from them Plan with them Work with them	Partner
Start with what the people know Build on what they have Teach by showing, learn by doing Not a showcase but a pattern Not odds and ends but a system Not piecemeal but integrated approach Not to conform but to transform Not relief but release.	Capacity development practitioner

**“Relief breeds parasites... release develops partners.” - Dr. Y.C. James Yen**





## The use of Participatory Methods and Tools in CMDRR<sup>5</sup>

CMDRR Process		Systems view of the process	Monitoring and evaluation variables
1. Entry into the community and building rapport			
2. Maintaining purposeful relationships with the community			
3. Participatory disaster risk assessment (PDRA)	Hazard		hazard, vulnerability, capacity
	Vulnerability		<b>Community Risk Reduction Aspirations</b>
	Capacity		Hazard prevention/mitigation Vulnerability elimination/reduction Capacity building
4. Identifying and developing community leaders/ organizers and formation of core group			
5. Development of DRR strategy			
6. Community DRR action planning <ul style="list-style-type: none"><li>■ Risk Reduction Plan</li><li>■ Organizational development plan</li><li>■ Community development plan</li><li>■ Contingency plan</li><li>■ Participatory monitoring, evaluation and learning plan</li></ul>			<b>Community's Risk Reduction Project</b>
7. Organized community action-reflection in implementing their plan			■ Does the project contribute to risk reduction
8. Guidance and support to managing people's organization			■ hazard prevented or mitigated?
9. Participatory monitoring, evaluation and learning (PMEL)			■ Vulnerability eliminated or reduced?
10. People's organization gradually assumes full responsibility for DRR through phase-over		People's organization that carries out the DRR plan	■ Capacity is built?
			<b>Group growth and development</b>

<sup>5</sup> Adapted from the handout prepared by Rusty Biñas, Director, Regional Center for Latin America, International Institute of Rural Reconstruction. Email: oticbabes@yahoo.com

## References

- AKDN's Approach to Development, 2011 <http://www.akdn.org/about.asp>
- Alissi, Albert S., Perspectives on Social Group Work Practice, Free Press, A Division of Macmillan Publishing Co., Inc., 1980
- Buenviaje, Orlando I., The Heart of Community Organizing, National Association for Social Work Education, Inc., MSV Printers and Publishing, Inc., Bulacan, Philippines, 2006
- CDRA, HORIZONTAL LEARNING Engaging freedom's possibilities, Annual Report 2004/2005, Community Development Resource Association/ Centre for Developmental Practice (CDRA), 52/54 Francis St., Woodstock 7915, South Africa.
- Douglas, Tom, Group Processes in Social Work, The Pitua Press, Great Britain, 1977.
- Gubbels, Peter and Koss, Catheryn (2000) FROM THE ROOTS UP Strengthening Organizational Capacity through Guided Self-Assessment. World Neighbors, Oklahoma City, Oklahoma, USA.
- International Federation of Red Cross and Red Crescent Societies, World Disasters Report Focus on community resilience, 2004
- IIRR 2005 Annual Report
- Kaplan, Allan, The Developing of Capacity, Community Development Resource Association, 1999.
- Lynton Rolf P., Pareek, Udai, Facilitating Development, New Delhi/Newbury Park/London: Sage Publications, 1998.
- Sabio, Dr. Eduardo, Scaling-up relationships in Development Programs: Phase-over experience of IIRR, prepared for the 'Study Visit on Organizational Resources Development Professionals of the Aga Khan Rural Support Programme' organized by IIRR, November 25-December 4, 2002.
- Shepherd, Cloris R., Small Groups, Some Sociological Perspectives
- Vijalapuram, Kuppan (2006) FUNDAMENTALS OF RURAL RECONSTRUCTION –FOURFOLD INTEGRATED FRAMEWORK OF GANDHI AND JIMMY YEN Compilation of Lectures and Essays, Yen – G.N-Von Centre.





## Attachment 7. Handout/Flipchart

### People's participation as the distinguishing development mark of community managed disaster risk reduction<sup>1</sup>

The people's participation is the distinguishing development mark of the Community Managed Disaster Risk Reduction. It is a participation that harnesses and strengthens the people's capacities to determine and realize the development agenda of their own communities towards a life security and resiliency.

The community is the stage for a sustainable management of disaster risk reduction. The community consists of people, now popularly known as stakeholders, who have different interests in development. For every development concern being addressed, a broad spectrum of stakeholders exists ranging from directly affected parties to individuals or institutions with individual interests (The World Bank Participation Sourcebook:25).

The community is usually generally composed of the haves and the have-nots.

The haves are rich and educated; control positions of power in government, business, and trade; own resources such as capital, land, and knowledge; have access to those who own or control resources; are members of the upper social strata; are economically privileged and politically powerful. They are few in number; and they constitute an internally cohesive, well-organized group.

The vast majority of people are have-nots. They are politically weak, unorganized, poor, landless, unskilled... (Selener:22). The poor are generally less educated and less organized than other more powerful stakeholders (The World Bank Participation Sourcebook:7).

Community development should be concerned with the welfare of the whole community, most especially the majority who are poor, deprived and oppressed (Manalili, p. 64). The poor include the women and children, who make up its large proportion; the marginalized, by virtue of their race and ethnicity as well as those disadvantaged by circumstances beyond their control, such as disabilities and natural or man-made disasters. (The World Bank Participation Sourcebook, 1994:7).

There are two types of people's participation based on who are participating.

#### Popular Participation

- Inversion of the prevailing process of decision-making that is dominated if not monopolized by the privileged few.
- Nature and process of development to be determined by the majority – poor, deprived, oppressed and exploited.

#### Multi-stakeholders' Participation

- It refers to the ability of the different stakeholders to influence and share control over development initiatives, and over the decisions and resources that affect themselves.
- There are basically three apparent stakeholders of development initiatives. They are the following:
  - (a) directly affected – those who may be expected to benefit or lose from certain development initiatives; on the losing end, in particular, are the poor, and those vulnerable in terms of gender, age, race, ethnicity, cultural identity, and/or displacement
  - (b) indirectly affected – others with interest in outcomes; like NGOs, private businesses and industries that may be affected or may have technical expertise
  - (c) government-elected officials; line agency staff; local, regional and national government officials

<sup>1</sup> Prepared by Orlando I. Buenviaje, DSD. Former Program Specialist on Community Mobilization, Regional Center for Asia, International Institute of Rural Reconstruction Orly.buenviaje@gmail.com



- Different stakeholders have varying levels of power, interests and resources. Ordinarily, it is the poor who face many barriers on a number of different levels, obstacles that prevent them from having a real stake in development initiatives. Hence, it is important to ensure that the vulnerable groups, who are usually excluded from the decision-making process on matters that affect their lives, have a voice.
- Multi-stakeholders participation seeks the leveling of power equilibrium, interests convergence and sharing of resources between and among the weaker and less organized groups and the stronger and more established stakeholders.

WHAT is people's participation?

People's participation refers to three distinct but interrelated aspects of the development process:

- People's benefit from development;
- People's contribution to development; and
- People's involvement in decision making regarding the nature and process of development.

WHY should people participate?

Participation must give people a voice in development and management decisions, access to resources, the knowledge required for development and a share in the benefits achieved ((Ewalt, et.al: 247). Participation involves the more equitable sharing of both political and economic power, a redistribution of power at local and national levels (Servaes: 16, 23).

HOW do people participate?

There are five levels of people's participation. CMDRR is situated on the fifth level.





### Levels of Participation<sup>1</sup>

The word participation covers a wide range of levels of involvement. It is not important to know the exact terminology of the different levels as many books use different words for the various levels. It is important, however, to be able to differentiate the different levels as they require different approaches. It will not always be feasible or needed to aim for the right hand side of the continuum. The level of participation you will aim for will depend on factors such as:

- Purpose of the initiative
- Time frame of the initiative
- Supporting environment within your organization
- Political environment; national policies and legislation
- Available human and financial resources

**Passive participation:** Decisions are made by powerful “external” stakeholders only; local communities participate by being told what is going to happen or has already happened.

**Participation by information giving:** Communities participate by answering questions posed by external stakeholders or project staff; they do not have opportunity to influence decision-making as findings are not shared.

**Participation by consultation:** Communities participate by being consulted, and external stakeholders consider their knowledge and interests; outsiders define both problems and solutions but may modify these based on local people's responses; process does not concede any share in decision-making and outsiders are under no obligation to take on board people's views.

**Functional Participation:** Communities participate by forming groups to meet pre-determined objectives of a program; driven by external stakeholders; such involvement does not tend to be at the planning stage but after major decisions have been made; such institutions may be dependent on external initiators but can also become self- dependent.

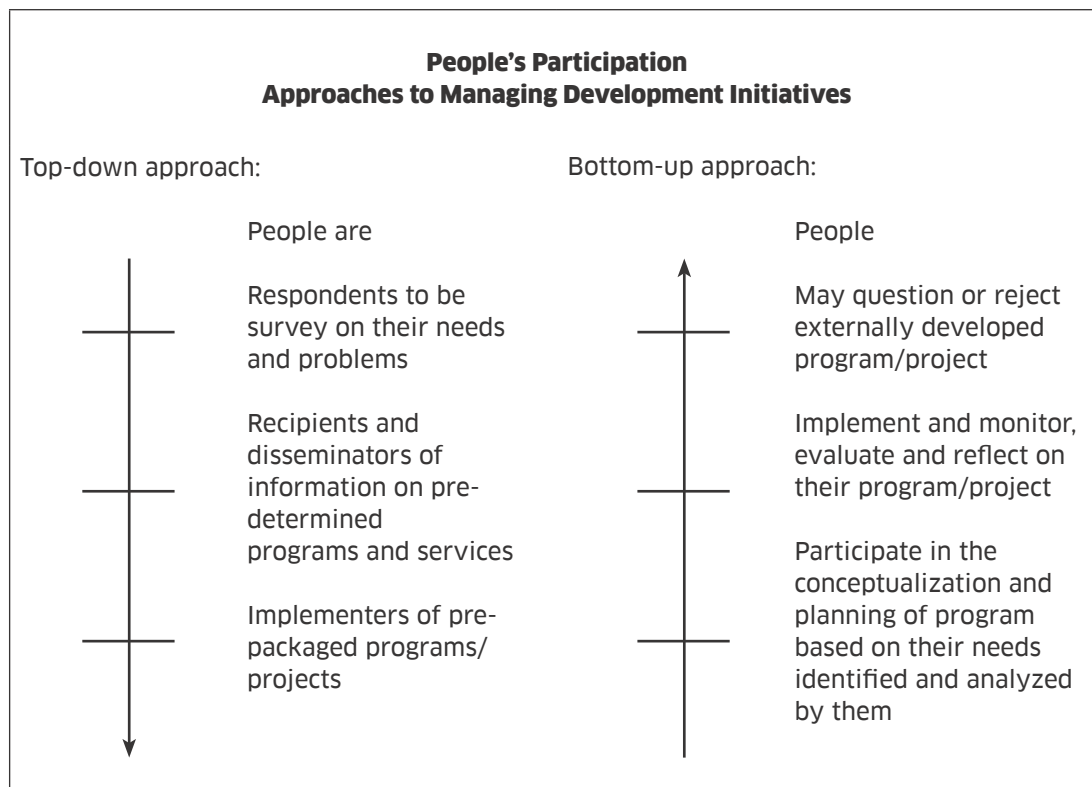
**Interactive participation:** Communities participate in joint analysis, leading to action, formation of new local groups or strengthening of existing ones; local stakeholders take control over local decisions, giving them an incentive in maintaining structures or practices.

**Self-mobilization:** Communities participate by taking initiatives independent of external institutions to change systems; external agents may play facilitating or catalytic role.

People's participation in managing development initiatives goes through a cycle: from situational analysis to planning and implementation to monitoring and evaluation of a development program or project.

From the perspective of program/project development, there are two basic approaches to managing development initiatives that feature different levels of people's participation.

<sup>1</sup> Source: Pretty, 1995



The seven levels of participation and the two contrasting approaches to managing development initiatives view people's participation from the vantage point of control. It raises the question of who has control over the nature and process of community development. Is it the people or some external entity?

Giving due recognition to the role of the people in the community as development managers being prime movers of change, and the development workers' facilitating role being an agent of learning demands mainstreaming participation both by the external development organization and the people's organization.

Participation is mainstreamed if it becomes an integral part of the official and widely accepted policy and development approach of the organization; and if it penetrates the individual and organizational culture. There are four requisites for this: Internalizing the participatory approach, fostering interactive learning environment internally and externally, developing institutional support, and contextualizing participation.

### 1. Internalizing the participatory approach

Participatory approach resides in the person, not in the methods and tools. No method or tool is inherently participatory if it does not spontaneously encourage ownership and innovation among those who use them. Ultimately, it is the attitude of the users that is important for the users are the ones who encourage and enable participation. In fact, the methods and tools can be implemented "top down," which merely pays lip service to participation. Participation is a skill that has to be learned. Skill refers to the fusion between knowledge and attitudes rooted in self-awareness and self-discipline that demonstrates a level of competence for transformative action. Development professionals and their partners need to imbibe how to use these methods and tools in a creative, flexible, open-ended ways that promote equilibrium in power relations among different stakeholders for their genuine participation. The process of learning in itself should be an empowering process. It demonstrates the spirit of participation that releases their inherent capacities for development.





## 2. Fostering interactive learning environment internally and externally

Participation thrives in an interactive learning environment. There exists a positive communication climate characterized by being supportive (safe, friendly, and encourages openness and mutual respect), credible (trustworthy) and multi-directional (lateral and horizontal – between and among the staff, the top management and the rank and file). This is likewise fostered by the sharing of decision-making powers. This type of positive climate spills over in their working relationship with the people in the community and other organizations.

## 3. Developing institutional support

For sustainability, being participatory cannot just be a matter of individual resolve. On one hand, different staff using different approaches – some using participatory and others non-participatory – can become counter-productive to the desired development impact of the organization. However, leaving it simply to the personal management style of the head predisposes the organization to the risk of internal inconsistency, discontinuity and uncertainty upon his/her departure. Thus, participation needs mainstreaming both at the individual and organizational level.

Policy-wise, support at both the institution and program/project level is necessary to initiate, sustain and spread the use of participatory methods and to encourage propagation of learning attitudes within the institution. The whole functioning of the organization should radiate a participatory approach nested into governance and management systems. The participatory approach then becomes integral to developing its organizational capacity in participatory development – from strategic leadership to organizational structure, and to development and management of human resource, program, finance, infrastructure and other processes. As such, the required resources become available and accessible in terms of money, materials, staff and time.

## 4. Contextualizing participation

Participation should not be maximized – that is, incorporated everywhere at the same depth and breath – but rather, optimized... the type of participation chosen should be based on the context and task. (Malvicini and Sweetser, 2003)

The most appropriate modes of participation are determined by the particular opportunities and challenges that each context presents. As the community stakeholders and development professionals learn from their shared experience of starting at a particular level, they can gradually traverse the complex continuum of participation from shallow to deep.

To achieve optimum participation, it is necessary to determine who will be engaged, in what manner, and at what times with due consideration to the socio-economic-cultural-political factors existing in the organizational and geographic contexts where CMDRR is sought to be realized. A stakeholder analysis can be useful to achieve this end.

## References

- Asian Development Bank, Mainstreaming Participatory Development Processes, 1994.
- Buenviaje, Orlando I., The Heart of Community Organizing, National Association For Social Work Education, Inc., MSV Printers and Publishing, Inc., Bulacan, Philippines, 2006
- Castillo, Celia, How Participatory is Participatory Development? A Review of the Philippine Experience.
- Ewalt, Patricia L., Freeman, Edith M., Poole, Dennis L., Community Building: Renewal, , Well-Being, and Shared Responsibility (n.pl.)
- IIRR, PBSP, PhilgerFund, and World Bank, Organizational Performance and Change Management Workshop Proceedings. Silang, Cavite: IIRR, 1997.
- International Federation of Red Cross and Red Crescent Societies, World Disasters Report Focus on community resilience, 2004
- Kretzmann, John and McKnight, John, Building Communities from the Inside Out, Centre for Urban Affairs and Policy Research, Northwestern University, Evanston, Illinois, 1993. (internet: Community organization@yahoo.com)
- Malvicini, Cindy F., Sweetser, Anne T. (July 2003) Modes of Participation Experiences from Regional Technical Assistance 5894: Capacity Building and Participation Activities II, POVERTY AND SOCIAL DEVELOPMENT PAPERS No. 6/, Regional and Sustainable Development Department, Asian Development Bank, Manila, Philippines. Manalili, Angelito, Community Organizing for People Empowerment, Manila: Kapatiran







## Attachment 8. Handout/Flipchart

### Community Managed Disaster Risk Reduction: Integral to Development Management<sup>1</sup>

#### Development Management

Development is the primary concern when working with communities. It is the ultimate goal of planned social change.

Community Managed Disaster Risk Reduction (CMDRR) can only be understood from the perspective of development management that is rooted in real life situation. Development management refers to the method and process of development intervention that impact on people and their lives. It is founded on the belief in the worth and dignity of every person. A belief that all people, including the poor, have the potential for self-development. Hence, development management focuses on providing opportunity to release and enhance those potentials.

CMDRR believes in people's participation, which is its distinguishing mark. This belief entails that we rethink our position in social transformation by looking closely at how we view development.

#### Development as release

Development is not something that you bring in or forcibly implement from the outside. Development is innate. It is a natural process constantly taking place in all of us – every individual, group or community – and will do so for as long as we exist. Spiritually, there is a belief that the divine breathe of life has endowed every human being with inner strength and inner beauty or goodwill. Conversely, we are all gifted with various capacities to: think, sense, feel, do things, connect meaningfully or communicate with one another, and serve others.

Nonetheless, we differ in the state into which we develop. We may or may not develop healthily or in the way that would allow these natural gifts to unfold themselves to the fullest of their inherent potentialities. Poverty continuously haunts the majority. The fact that the majority are impoverished indicates that our will and capacity to develop are hindered, half-buried or restricted.

Internal and the external factors cause poverty which hinders our natural impulse to develop for they block what we know and what we can do. On one hand, aside from the lack of resources, the experience-based capacities of the poor are unrecognized, hindered and hidden from use. On the other hand, the privileged few who are educated, rich and powerful easily dominate the development process. For capacity, skills and resources are equated with having acquired formal education, wealth and influence in society. We are all trapped in unequal social and economic relationships. This inequity in power relationships constitutes the outer, more visible, hindrance to healthy development.

But there are the inner hindrances of poverty and oppression, of luxury and domination that lie within and between us. From one end, there is fear, self-doubt, self-hatred, self-pity, and other deep consequences of deprivation, subjugation and abuse. On the other end, there is arrogance, callousness, self-admiration and other deep consequences of miseducation, excessive wealth, misuse of power and greed.

<sup>1</sup> Prepared by Orlando I. Buenviaje, DSD. Former Program Specialist on Community Mobilization, Regional Center for Asia, International Institute of Rural Reconstruction Orly.buenviaje@gmail.com

We all need to be freed of the inner and outer hindrances in order to be fully human. We need each other to bring ourselves to a shared transformative consciousness of what we have now become. We need to unearth why we are in this sorry state and how we could move forward to bring about genuine social transformation. We, as development practitioners, are catalysts, agents of learning, not agents of change. For we cannot cause development but can only nurture the development process. Viewing it from this perspective, we can see that the process of development becomes the point of development itself. Hence, we are not concerned with product delivery but are primarily involved with process facilitation.

### From agents of change to agents of learning

Planned social transformation of communities requires a certain perspective in managing development. Most literatures speak of a change agent, somebody who is a professional development worker equipped with the ability to *deliver* change in the community. Change is viewed from the vantage point of control and even sometimes manipulation. Thus, a change agent has the competency and authorities derived from formal education to think ahead, plan for and execute changes deemed necessary for the community. This view posits an authoritarian worker-client relationship.

Being an agent of learning views change from the vantage point of nurturing, and facilitating the development process to enable the inherent capacities to unfold to its fullest potentials. In this way, change becomes internally driven rather than externally imposed sparks, which makes it more meaningful and lasting. It seeks to depart from an authoritarian worker-client relationship moving towards egalitarian relationship of genuine partnership between the development practitioner and the people.

This partnership is distinctly characterized by the “four mutuals” of team work: mutual knowledge, mutual trust, mutual respect and mutual help<sup>2</sup>. In such a relationship, the people in the community (villagers, the insiders) are at the center of development in which they assume their rightful role as development managers being the prime movers of change, and their development partners (outsiders) act as catalysts<sup>3</sup>.

### Role of the people and reciprocal role of the development workers

Working with communities in the context of development management is a function of the dynamic interaction between the development practitioners (usually outsiders) and the community people (insiders). This dynamic interaction is reflected by the nature of the people’s position vis-à-vis the program/project and the development practitioner’s stance in their relationship with each other. Development practitioners facilitate the fruition of a “people-centered program development” as an expression of the blossoming of inner potentialities of the community.

On one hand, the relationship between the program and people can be summarized by a key word: OWN. On the other hand, the relationship between the development practitioners and people can be summarized by a key phrase: LET GO.

<sup>2</sup> Adaptation from Dr. Yen’s characterization of team work.

<sup>3</sup> Catalyst - People-empowering role of facilitating development.





## Role of the People in the Community as Development Managers Being the Prime Movers of Change

### PEOPLE-PROGRAM RELATIONSHIP

- |          |  |          |                            |
|----------|--|----------|----------------------------|
| <b>O</b> | Ownership: Program as concrete expression of the people's initiative, capacity & aspirations | <b>A</b> | Access & control           |
| <b>W</b> | Winning program/<br>project  | <b>U</b> | Use of the inner resources |
|          |  | <b>R</b> | Relevant                   |
|          |  | <b>A</b> | Attainable                 |
| <b>N</b> | Natural: Blends with the community's life rhythm   |          |                            |

## The Development Workers' Facilitating Role Being an Agent of Learning

### WORKER-PEOPLE RELATIONSHIP

- L** Lasting
- E** Energizing: Release of inherent powers
- T** Temporary yet lasting, or continuing but progressing
- G** Goal-oriented
- O** Others-centered vs. self-centered

The outsider/external development organization, usually a non-government organization (NGO) to which the development practitioners are attached, may view its presence in the community as:

#### ■ Temporary yet lasting

It is temporary because outsiders do not stay permanently in the community in order to shed off dependency and give space for growing self-determination of the local people. Yet, like a paradox, the relationship is lasting despite the eventual absence.

It is lasting in the sense of being able to develop reciprocal meaning and sustainability to the outsiders' development efforts through the good seeds of development that have been planted, nourished and continually growing. The external development organization's accompaniment shall cease but the spirit of friendship endures and, the people's organization moves on with greater sense of purpose, self-confidence, determination and competencies. Upon exit, occasional demand-driven interface may still take place in the form of short-term consultancies.

#### ■ Continuing but progressing

Based on its strategic positioning, the development organization may opt to stay in the community at the disengaging phase. It may therefore proceed (a) to complement the local

people in areas where their capacity to perform is still lacking in the face of constantly changing environment and/or; (b) localize its staff as the relationship assumes a deliberate progression being a concrete manifestation of the accumulated social learning and gradual development of the disaster-resilience capacities of the local people to manage their own community affairs.

The seed in the ground soil does not sprout until its required temperature range, oxygen and water are available. 'LET GO' denotes the capacity of the development practitioners to radiate the following three fundamental enabling conditions so that phase-over can work. The development practitioners let the people:

- FEEL the warmth of their partnership through the way they serve: with deep respect, a sense of humility, listening attitude, patience and care;
- INHALE the fundamental values of undertaking development initiatives through how they do their work with zeal and integrity; and
- Be REFRESHED through a fulfilling relationship with development practitioners who place the interest of the community over and above their own self interest.

Ultimately, the community people OWN not only their program but likewise the whole process of development through the phase-over.

*"Development is sustainable only if the beneficiaries become, in a gradual manner, the masters of the process."* (His Highness, the Aga Khan. 2002)

## References

- Reddi, G.N., FUNDAMENTALS OF RURAL RECONSTRUCTION – FOURFOLD INTEGRATED FRAMEWORK OF GANDHI AND JIMMY YEN Compilation of Lectures and Essays, Yen – G.N-Von Centre, Vijalapuram, Kuppam, 2006
- Buenviaje, Orlando I., The Heart of Community Organizing, National Association for Social Work Education, Inc., MSV Printers & Publishing, Inc., Bulacan, Philippines, 2006
- CDRA, HORIZONTAL LEARNING Engaging freedom's possibilities, Annual Report 2004/2005, Community Development Resource Association/Centre for Developmental Practice (CDRA), 52/54 Francis St., Woodstock 7915, South Africa.
- International Federation of Red Cross and Red Crescent Societies, World Disasters Report Focus on community resilience, 2004
- Kaplan, Allan, The Developing of Capacity, Community Development Resource Association, 1999.
- Mendoza, Thelma Lee, Social Welfare and Social Work, Revised Edition, Megabooks Company, Cubao, Quezon City, 2002. (pp. 513-517)
- Sabio, Dr. Eduardo, Scaling-up relationships in Development Programs: Phase-over experience of IIRR, prepared for the 'Study Visit on Organizational Resources Development Professionals of the Aga Khan Rural Support Programme' organized by IIRR, November 25-December 4, 2002.
- The Aga Khan (September 9, 2002) Speech at the Conference on Culture and Development on the Occasion of the 6th Anniversary of the Prince Claus Fund. Amsterdam.
- Translating the Rural Reconstruction Philosophy and Principles into Practice: The IIRR Experience - a compilation by Lorna S. Labayen, M.D., Director of the health program, IIRR, Philippines, 1996; Original document written by Mr. Conrado S. Navarro, Field Coordinator, IIRR, Philippines, 1990.





# ANNEX 1

## **“Disaster Crunch” model**

Unsafe Conditions are the vulnerable context where people and property are exposed to risk of disaster. These make the community vulnerable to a particular hazard. The physical environment is an element. Other factors include unstable economy and low-income levels. Examples: People having to live in dangerous locations because they cannot afford to pay rent in safe areas or buildings, lacking effective protection by the state (for instance, in terms of effective building codes); engaging in dangerous livelihoods (such as ocean fishing in small boats, or wildlife poaching, or prostitution, with its health risks); having minimal food entitlements, or entitlements that are prone to rapid disruption.

### **Dynamic**

Dynamic Pressures within the society are the immediate causes of the Unsafe Conditions. They are processes and activities that have “translated” the effects of root causes into unsafe conditions. These pressures answer the question of HOW unsafe or dangerous conditions have arisen.

Beneath the Dynamic Pressures are Underlying Causes, which led to communities or sections of them to be unsafe and vulnerable. Vulnerability is not a situation that just happens. Most often, it has developed as a progression from Underlying Conditions to Dynamic Pressures and later, to Unsafe Conditions. These underlying or root causes answer the question WHY dangerous or unsafe conditions persist. If the fundamental causes of disaster risk are not addressed, then the disaster situation will soon repeat itself.

### **Global**

The ‘crunch model’ helps us understand the process of vulnerability assessment, but does not yet show us how to apply this on community level. A tool that can be used to analyze vulnerabilities is the problem tree. The premise is that one is already familiar with the community situation and its key vulnerabilities. Another tool is the community drama wherein people express what happens during disasters and why.

A person relatively new to the community and wants to understand better the situation, he/she must start at the baseline data gathering process. The community’s vulnerability is rooted in political economic processes and the underlying causes might ultimately be quite remote from the disaster event itself. The different aspects listed above might help in collecting the information needed for assessing vulnerabilities. Be aware of the difference in vulnerability between men and women, poor and rich, young and old people and etc.

Source: [www.globalcrisisresolution.org](http://www.globalcrisisresolution.org)



# ANNEX 2

## Introducing Climate Change

*Julie Arrighi*

Disaster Management Delegate

American Red Cross

Uganda

juliearrighi@gmail.com

*Alejandro Jiménez Hernández*

Consultant

Capacity Building coordinator

Wetlands International

ale.jimenez@gmail.com

alejandrojimenez@wetlands.org

When trying to understand climate change, it is always better to stick to day-to-day experiences. Hence, what is the first thing you notice when climbing into a car on a warm, sunny day? It is hot! When the sun shines on a car, the light and energy pass through the glass and warm up the surface of the seats inside. Not all of that warmth escapes back out however which results in the often sweltering temperature inside.

The air around the earth acts in a very similar way to the glass in a sun-bathed vehicle. The sun is able to shine light and energy through the air, warming up the surface of the earth; and, similar to a car, not all of the resulting heat is able to escape back out to space. This is called the greenhouse effect, a natural and beneficial relationship that helps to keep the earth at a livable temperature for humankind.<sup>i</sup>

But since the early 1800s, when human development spurred significant changes to industry, energy supply and land use, the air has been polluted with extra heat-trapping gasses, preventing additional heat from escaping.<sup>ii</sup> Overall the earth's temperature has risen by 0.74°C so far. While this might seem small, it is an average seen over such a massive area (the size of the earth) that it can have serious impact on the normal, more local characteristics of our seasons and extreme weather – especially as that temperature continues to increase.<sup>iii</sup>

What impacts can we expect? It is not possible to have exact answers at the village or community level but generally speaking, climate change is likely to affect most types of “heat and water” related extremes – times of too much water, such as heavy rains, floods, cyclones, sea level rise etc., and times of too little water or too much heat, such as droughts and heat waves.<sup>iv</sup> Generally speaking it is anticipated that these extremes will become even more extreme, not only in relation to intensity but also coverage, frequency, timing and duration.<sup>v</sup>

Impacts derived from these extremes, will be felt across many sectors. From an increased burden on disaster risk reduction systems, to decreased food security of humans and livestock as crop failures and water shortages increase, cropping times become less predictable and fisheries are stressed.<sup>vi</sup> Disease patterns such as malaria are also likely to change, as favorable temperatures extend up mountain slopes; while water and sanitation will become an increasingly serious concern as incidences of flooding increase.<sup>vii</sup>

These are examples of just a few anticipated effects. To adapt to community level changes, it is important to manage the climate risks we face today while shifting our thinking from knowing only about the past, to also considering how to manage the changing risks and increased uncertainty in the future. Through coordination with our local leaders, local organizations and institutions, we shall be able to better plan for what might be coming and reduce the risk of major damages and losses affecting our communities. Adaptation to climate change is a long-term process, dependent on our level of climate

awareness when managing development and risks. Traditional knowledge and scientific methods must complement each other to observe climate extremes and assess changing patterns of risk. We must capture these observations and assessments in better planning and designing the ways we manage land, water, our environment and our socio-economic systems.

- 
- <sup>i</sup> Red Cross Red Crescent Climate Centre, 2007: Red Cross Red Crescent Climate Guide. The Hague, The Netherlands, pp 1-73
  - <sup>ii</sup> Le Treut, H., R. Somerville, U. Cubasch, Y. Ding, C. Mauritzen, A. Mokssit, T. Peterson and M. Prather, 2007: Historical Overview of Climate Change. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA
  - <sup>iii</sup> IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.
  - <sup>iv</sup> *ibid*
  - <sup>v</sup> IPCC, 2012: Summary for Policymakers. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 1-19.
  - <sup>vi</sup> HLPE, 2012. Food security and climate change. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome 2012.
  - <sup>vii</sup> Confalonieri, U., B. Menne, R. Akhtar, K.L. Ebi, M. Hauengue, R.S. Kovats, B. Revich and A. Woodward, 2007: Human health. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 391-431.

# ANNEX 3

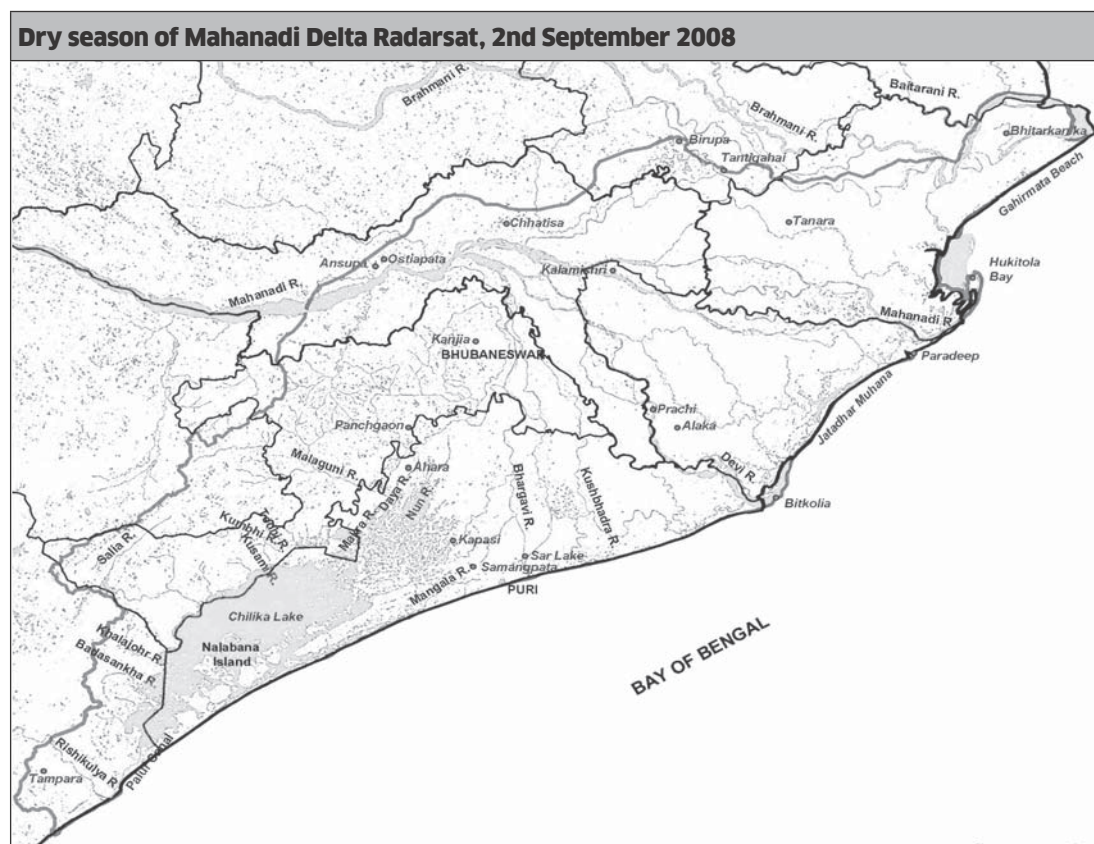
## Ecosystem Based Approaches for Disaster Risk Reduction

Ritesh Kumar, Wetlands International – South Asia  
A-25, Second Floor, Defence Colony, New Delhi – 110024  
Email: ritesh.kumar@wi-sa.org

Munish Kaushik, Cordaid  
1, Ashoka Place, New Delhi – 110001  
Email: munish.kaushik@cordaid.net

Ecosystems, such as wetlands, provide a range of ecosystem services that help reduce disaster risk as well as secure livelihoods and ensure well-being of dependent communities. Integrating ecosystems in disaster risk reduction planning and decision-making provides opportunities for achieving risk reduction by considering their services as “natural infrastructure” akin to the notion of physical infrastructure that is often used to secure life and assets.

At the same time, inadequate attention to ecosystems in disaster risk reduction planning can lead to adverse consequences for their sustenance through fragmentation of landscapes and hydrological regimes, degradation or even conversion for alternate use. In the long term, loss of ecosystem services enhances vulnerability of the communities through reduced water and food security. Evaluating disaster risk in the context of landscapes and ecological integrity helps assist in clarifying the “naturalness” of disasters and identifying intervention strategies and action plans that optimize integration of ecosystem services.



### Flood season of Mahanadi Delta Radarsat, 7th October 2008



Integration of ecosystem based approaches to disaster risk reduction is demonstrated in the case of Mahanadi Delta in Orissa. Spread over 9,000 square kilometres, the delta is frequented by floods and cyclones<sup>1</sup>. The floods of September 2011 inundated 30 districts of the state and affected 2.2 million people. The super cyclone of 1999 led to more than 10,000 deaths and affected .85 million people and 0.6 million ha agricultural lands<sup>1</sup>. Depressions of varying intensity are a common weather phenomenon of the region.

The Mahanadi Delta is bestowed with a rich diversity of inland and coastal wetlands, which apart from playing a role in regulating hydrological regimes and buffering against storms, are source of livelihoods for communities. Traditionally, the agrarian communities evolved farming system which adequately distributed crop failure risks emerging through recurrent floods and droughts. However, developmental planning within the region has been inherently contradictory to the symbiotic relationship between hydrological regimes and livelihoods, and focused on structural approaches to support agriculture and provide flood protection by harnessing hydrological regimes. As an outcome of water resource management which has failed to understand the role of fluvial regimes in deltas, the communities have been rendered flood vulnerable rather than flood dependant. With the flow connectivity severely impeded by embankments, the delta faces severe waterlogging which leads to lower agricultural productivity as well as diseases attributed to stagnant waters.

Assessment based on remote sensing imageries indicate that the extent of wetlands has declined considerably due to loss of connectivity with the river regimes and changing land use pattern, especially in the central deltaic region. From 1975 to 2010, nearly 30% of wetland area has been lost. The overall agricultural productivity has been highly affected by poor drainage conditions due to embankments<sup>2</sup>.

<sup>1</sup> Mohanti M (2000) Unprecedented Super Cyclone on the Orissa Coast of the Bay of Bengal, India. Cogeoenvironment, News Letter16 (IUGS-UNESCO), (Ed. C.J. Simpson), Torrens, Australia, pp.11-13

<sup>2</sup> Khatua KK and Patra KC (2004) Management of high flood in Mahanadi and its tributaries below Naraj. Proc.49th Annual Session of IEI (India), Orissa State Center, Bhubaneswar

The role of floods and fluvial regimes is gradually becoming apparent. The traditional knowledge of communities on the role of floods in agriculture was a key component in assessing environmental flows to Chilika Lake. The role of wetlands in reducing disaster risk has also received increasing focus in the recent decades. Research on the 1999 super cyclone validated the storm protection function of mangroves of Orissa on Indian east coast. It established that villages with wider mangroves between them and the east coast experienced significantly fewer deaths than ones with narrower or no mangroves<sup>3</sup>.

Efforts towards management of disaster risk now have explicit focus on ecosystem services of wetlands. The government has taken interventions to expand the scope of wetland management to the river basin level. Similarly, restoration and conservation of existing mangrove areas is also being undertaken as part of integrated coastal zone management processes. Based on these experiences, Wetlands International-South Asia and Cordaid have initiated a five year programme aimed at building resilience in the delta communities by integrating ecosystem management and climate change adaptation within disaster risk reduction approaches.

---

<sup>3</sup> Das S and Vincent JR (2009) Mangroves protected villages and reduced death toll during Indian super cyclone. PNAS 106:7357-7360







