

# FACILITATING CMDRR METHOD AND PROCESS

Module 2

### **BUILDING RESILIENT COMMUNITIES**

A training manual on Community Managed Disaster Risk Reduction

Revised 2013 edition

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A training manual on Community Managed Disaster Risk Reduction



# Module 2



**Cordaid** Suilding Flourishing communities

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**Cordaid** S Building Flourishing communities

Overcoming poverty through innovation and community empowerment

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IIRR'

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# ACRONYMS

СО	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.



are real stories from the

**Case stories** 

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 icebreakers, 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 Couse 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.



# MODULE TWO







## FACILITATING CMDRR: METHOD AND PROCESS

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

This module introduces practical tools based on Participatory Learning and Action (PLA) to facilitate the Four Minimums at the community level.

A session on gender is provided as an overarching consideration in implementing the Four Minimums. The CMDRR Four Minimums are presented in the following sub modules:

**Sub module 1** orients the participants about the key principles and practical steps in undertaking hazard, vulnerability and capacity assessments to come up with the disaster risk assessment. It concludes with perceptions in risk assessment. The Participatory Disaster Risk Assessment is premised on the following Disaster Risk formula:

Disaster Risk = Hazard x Vulnerability Capacity

**Sub module 2** teaches participants the tools and methodologies to assist communities in formulating DRR measures, contingency plans, community-managed early warning systems and community simulation and drills.

**Sub module 3** provides participants an understanding of the importance of organizing to implement CMDRR and how to strengthen CSOs and community organizations.

**Sub module 4** equips participants with methods and tools to facilitate communities to design and conduct self-monitoring, evaluation and learning activities for CMDRR.

This module features a field practicum approach for participants to apply their learning using PLA approaches and tools. Session 1

# INTRODUCTION TO USING PARTICIPATORY LEARNING ACTION AND TOOLBOX



Duration: 1 hour 30 minutes

### Description

The Participatory Rural Appraisal (PRA), here appropriately called Participatory Learning and Action (PLA), answers the need of CMDRR for a disaster risk assessment process that involves the community. It is important for CMDRR facilitators to understand the relevance and usage of PLA tools. For them to generate adequate information on the three variables of disaster risk (hazard, vulnerability and capacity), careful selection and sequencing are important. This session focuses on the basic principles of PLA tools and their use in Participatory Disaster Risk Assessment (PDRA).

### **Learning Objectives**

At end of the session participants should be able to:

- 1. Explain the basic concepts and principles of PLA.
- 2. Demonstrate how to use selected PLA tools.





#### Learning aids and materials

- Black/white board
- Chalk/marker
- Flip chart paper
- Meta cards (needed for activity 1)
- Attachment 1. Reading Material Participatory Learning and Action
- Attachment 2. Handout PDRA triangulation
- Attachment 3. Tips when entering a community and attributes of a good facilitator
- Attachment 4. Handout PLA toolbox

#### Procedure

#### **Activity 1. Introduction to PLA**

- 1. Introduce the concept of PLA by using the buzz group method. Distribute meta-cards to the groups and ask what they know about PLA. Ask them to put their cards on the board. Cluster the cards according to theme or idea by showing each card to the participants and letting them decide which cards should belong to what cluster. Once all have been arranged, participants will review, revise and label each cluster.
- 2. Summarize the ideas and provide the following overview about PLA: It is a methodology that facilitates risk assessment and analysis, development of disaster risk reduction measures, and identification of monitoring, evaluation and learning indicators in measuring progress based on the realities of the community. PLA promotes self-reliance and ownership (Please see Attachment 1).

#### Activity 2: Exercise in understanding the tools and classroom demonstration (3 hours)

- 1. Using the participants' PLA Experience Inventory at the start of the course, ask for volunteers who will demonstrate how to use the tools through the role playing method. Each will have 15 minutes to do the role-playing method.
- 2. During role-play, facilitate the discussion and elaborate on the explanations about the tools. Take the opportunity to discuss how to enter a community and build rapport, and the attributes of a good PLA facilitator (See Attachment 3).
- 3. Wrap up the activity by highlighting the following points:
  - Knowing the tools and their uses is a very important requisite for successful community disaster risk assessment.
  - Some tools could generate information pertinent to more than one risk assessment variable. It is important to record all relevant information.
  - Assessment of community disaster risk is NOT the same as assessing community needs. Avoid the pitfall of doing the latter instead of the first.
- 5. Distribute Attachments 2 and 4. Review this attachments as they will be useful in the following sessions.

### Synthesis (10 minutes)

- Assessing community disaster risk is NOT the same as assessing community emergency needs.
- It is very important to know how to select, sequence and use PLA tools to facilitate risk assessment and analysis (hazard, vulnerability and capacity assessments).
- Some tools could generate information pertinent to more than one variable, therefore take note and record all important points raised.

# 2,1

### **Suggested readings**

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### **Participatory Learning and Action**



#### What is PLA and why?

2.1

PLA tools are community friendly tools because of the use of visuals and other learning aids for people to get involved and engaged, and learn and decide for action.

It has been described as similar to the process of "handing the stick over." The outsider's role is that of a catalyst, a facilitator of processes within the community that is prepared to change its situation.

Participatory	The development process is determined by the local people.					
	All parties concerned (insiders and outsiders) participate on an equal footing.					
Rural	It can be used in urban environments.					
	It can be used to analyze the structure and function of an institution.					
Relaxed	It is not rushed, but is not just a picnic.					
	All participants pursue an agreed upon objective.					
Appraisal	Not limited to finding information, but also processing the information visually.					
	Analyzing the information with the community.					
	Planning activities based on findings.					

### **Three Pillars of PLA**

Attitude and

behavior

Learn to unlearn

They can do it

Handing over

the stick

Embrace error

Sit down.

listen, learn,

respect

Facilitate

Sharing roles, knowledge and experience

Sharing knowledge and analysis

w

Supporting people and their organizations

Sharing learning experience, training possibilities, methods and ideas with local people and among facilitators Methods and techniques They: Map Model Compare

Model Compare Score Diagram Analysis Plan Act Evaluate etc.

#### **Five central concepts of PLA**

- 1. Empowerment knowledge is power and the "monopoly" of knowledge can be broken
- 2. Respect reversal of roles between insiders and outsiders
- 3. Localization extensive & creative use of local materials
- 4. Enjoyment should be fun
- 5. Inclusiveness inclusion of marginal groups

The following are the factors that contributed to the emergence of PRA in the late '70s and early '80s:

- Rising need for good and timely information in the face of accelerating rural change
- Frustration with surveys. Questionnaire surveys are costly, time-consuming, wasteful, often inaccurate, misleading and reported late.
- Critique of rural development tourism field inspection biases (e.g. quick visits to better-off farmers, at successful project sites near urban centers, in the dry season) give false picture of rural people's realities.
- Questions on the so-called "expert knowledge" recognizing that "we" and our confidence in our knowledge are a large part of the problem, and that "they" and their knowledge is the key to the solution.
- A greater awareness of the value of local knowledge.
- The search for an alternative that is cost-effective and provides quick and sufficiently accurate information.

#### Why is PLA popular now?

PLA combines the advantages of different approaches. It applies social anthropology, agro-ecosystem analysis, farming system research, participatory action research and participatory learning methods.

- PLA uses a range of new methods (mapping, ranking, diagramming, modeling, sorting and transect) that are flexible rather than rigid, visual rather than verbal, based on group rather than individual analysis, and compare rather than measure.
- PLA is easy to use.
- PLA is oriented towards decentralization, democracy, diversity, sustainability, community
  participation and learning.

### **PDRA triangulation**



A CMDRR facilitator must keep in mind that a PLA tool\session needs to be conducted with different groups (men, women, children, adult, etc.) in the village. The ideas generated need to be shared with other people participating in different PLA sessions. The number of participants should be adequate to represent the community. If a village has 300 households, more than 150 of the households altogether should be represented in the PLA sessions.



#### Steps to facilitate a PLA session

- Step 1 Select the participants for the session
- Step 2 Build rapport with the participants
- Step 3 Explain the objectives of the PLA session
- Step 4 Conduct the session in a natural and relaxed manner
- Step 5 Collate and analyse the learning outcomes
- Step 6 Summarize the findings and learning outcomes
- Step 7 Draw suggested actions
- Step 8 Share the participants' feelings about the exercise
- Step 9 Make notes on the session

2.1

### Facilitating PDRA in the community

Before entering into a community, community facilitators must be knowledge of and keen on the concepts and principles of Community Managed Disaster Risk Reduction formula, as shown below:

Disaster Risk = H x V / C

The above formula illustrates that Disaster Risk Assessment is the assessment of hazards, vulnerabilities and capacities. It involves identifying the elements at risk based on their degree of exposure and analyzing the relationship between the three variables.

Risk assessments become participatory if it is the community itself that assesses and analyzes these three variables. The CMDRR process facilitates this through participatory disaster risk assessment PDRA using participatory learning and action (PLA) tools and generating the following outcome:

#### **Outcomes of PDRA**

- 1. Thorough understanding and awareness of hazards, vulnerabilities, capacities and degree of risk.
- 2. The number high risk, medium risk and low risk individuals in the community are identified and segregated according to gender, age groups and location in vulnerable areas in the community.
- 3. A reflective thought process among community members leading towards formation of community organizations that will plan, implement and evaluate DRR measures in the community.
- 4. Identification of clear measures for DRR.

The facilitator must always be aware that one of the objectives of PDRA is to initiate a "reflective thought process" among the community members that will lead to the formation (or selection) of an organization that can respond to the issue and will grow over time. This organization should function in a sustainable manner and be able to apply the participatory planning, monitoring, evaluation and learning process at the community level.

If there is no such organization yet in place, the facilitator should encourage the community to plan on building one. During risk assessment, the facilitator must help the community realize that disaster risk reduction activities cannot be done individually but collectively. For this, the community needs an organization that can manage the CMDRR process. The facilitator can use the following sequence of questions to motivate and mobilize the community:

6. How can we form that organization?

5. What kind of organization can manage PDRA activities in our village/community?

4. Is there a need to be organized?

3. Is it possible to achieve an aspired situation by individual efforts?

2. What is the present situation?

1. What do we hope to see in the villages/community?

The end product of PDRA is a community able to determine the degree of disaster risk, capacity gaps and risk reduction measures





# Rapport building and purposeful relationship with the community

The first entry into a community is crucial. It is here where you lay your purpose but not raise expectations. You should clearly explain why you or your team are there. Successful entry and immersion also depend on preparation prior to entry.

- If possible, get secondary data on the community to have an initial background and understanding.
- Exert an effort to know who should be contacted in the community (elders, local leaders, etc)
- When in the community:

2.1

- Introduce yourself and other members of your group to all community members involved.
- Explain to the community in detail the study or project objectives. Be careful not to raise false expectations.
- Let the people know that you have come to learn from them.
- Discuss with the community the possible benefits of the study.
- Inform community members of how much of their time the study will take.
- Learn the meaning of local terms.
- Learn to speak the local language if possible. This makes field work much easier and is usually highly appreciated.

#### Transformative gestures of a good PLA facilitator<sup>1</sup>

Being resilient requires strength in order to address the root causes of unsafe conditions and make individuals and communities strong and confident in managing their lives and claiming their right to be safe. strength and confidence demonstrated by the community is referred to as power. This is the required power that is created and transferred to the community in the process of implementing the 4 minimums of CMDRR.

In the CMDRR process, risk assessment and analysis is the first among the 4 minimums.

Once risk assessment and analysis has been conducted, the community drafts the DRR measures, including development and contingency plans. this is the second minimum. In the process of implementing the DRR measures, a functional community organization is established, this is the third minimum. The fourth minimum is the establishment of mechanisms to measure resilience at the community level. These operational mechanisms of monitoring, evaluating, and learning will inform the communities of their progress, achievements and impacts - prerequisites to measuring resilience.

The following are tips for facilitators to observe:

1. **The Symbol of Power** - Something that represents the people or an object with which they associate themselves. This could be marking pens, stones, seeds leaves, soil, sticks, among others. It is important for facilitator to identify or encourage communities to represent themselves in the exercise so that they will own the entire activity as they express themselves through representations. In many cases people in the communities won't participate if they are not acknowledged and the symbol of power is not handed over to them. Literally handing over the symbol of power is a real expression of "Now, you are in charge." Take note that pen and papers are usually closely associated to the educated people.

<sup>&</sup>lt;sup>1</sup> Developed by Rusty Binas, CORDAID DRR Global Advisor

- 2. **The Power of Position** the power to influence or be in authority is in many ways translated into gestures. One can point their fingers to others as a command or stand tall in front of other people. The challenge is to provide that enabling environment that people will feel that they are also in authority or there is balance of power. Sitting in a circle for example provides that comfort of being in equal position.
- 3. **The Power of Time** a point of time is important to our communities. Time is of the essence. Maximizing their time for learning and for decision making is a real power for transformation.
- 4. **The Power of Space** providing space that can be accessed by all encourages participants to think, speak and act freely. During the community risk assessment process the facilitator can maximize space to make people feel comfortable. She/he may use the floor for demonstrations and exercises. The wall board on the other hand allows a limited number of people to access compared to the floor.
- 5. **The Power of Numbers** The more the merrier. The more number of people participating in community activities the higher the feeling of ownership. Transformation happens if majority is taking responsibility and action. Thus, the facilitator should find ways to ensure participation, including those affected by a culture of silence and the most at risk individuals.



- Big eyes to observe
- Big ears to listen
- Big nose to be sensitive
- Small mouth to allow more people to talk
- One big hand to embrace mistakes
- One small hand to refrain from taking over the work of the community
- Two big feet to journey with the people
- An open mind
- Brain of a scientist
- Big heart because it is the heart of a missionary.

#### Attributes of a good PLA facilitator

- Creates an atmosphere of friendliness and equality
- Stimulates community members to reflect on their problems and needs
- Gives opportunities to all participants, encourages those who are not used to speaking in group meetings
- Listens, is patient and non-dominating
- Is modest
- Helps people to analyze their situation and plan activities together
- Values participants' opinions; does not criticize others
- Is not biased or judgmental
- Deepens the analysis by raising relevant questions
- Facilitates decision-making by mediating between different interests groups



#### Attachment 4. Handout - PLA toolbox

### TIMELINE



#### Purpose:

- 1. To get insights into important events in the past and the changes that have occurred;
- 2. To get insights into past hazards and in the changes in their nature, intensity and behavior;
- 3. To gain an understanding of the present situation in the community (the causal link between the past and the present in terms of the hazards, vulnerabilities and other relevant issues, like environmental changes taking place in the community and its surroundings);

#### Process:

- In doing the timeline tool, make sure to include elderly people as they can provide information about early events that younger generations may not know about. Focus group discussions with gender-specific groups (i.e. all men or all women) can be done as small groups encourage more participation. After which you bring the two groups together to compare the similarities and differences and validate the information given.
- 2. The facilitator must state the objectives of the activity. It is important to explain to participants the purpose of the timeline tool and the purpose it will serve.
- 3. The facilitator can start by asking the participants to recall major events in their community. These may include the following:
  - major events significant to the community
  - major hazards and their effects
  - changes in land use (crops, forest cover, houses, etc.)
  - changes in land tenure
  - changes in food security and nutrition
  - changes in administration and organization

atrition organization nformation into a peline is complete the

The group must prepare to put the information into a timeline (see example). When the timeline is complete, the

facilitator will be able to show past events (such as hazards), and what changes have occurred over time, the present situation in the community (causal link between past and present in terms of health issues or hazards and vulnerabilities) and how things may continue to change in the future (trends). The hazard timeline will make people aware of changes and present perceptions, and can serve as a basis for discussions on future programmes or projects within the community.

The facilitator will be able to extract climate change and ecosystem related information with the following questions:

- Are there any trends or changes in the frequency of events over time?
- Have weather & climate related events such as flood, drought and cyclones changed in number or severity?
- Could these variations be related to land use changes? Please provide some examples by pinpointing on a map of the community and its surroundings any land use changes people may consider could be linked to hazards such as landslides, flashfloods, floods, fires, droughts or water shortages.
- What are the survival and bouncing back strategies of the community?
- What events do you expect will occur in the future? When? Why?
- Does this perception of future events affect your plans for the future?
- Can you think of anything you or the community can do to prevent these events from causing severe damages? Can you think of anything you or the community can do to reduce the impacts caused by these events?

#### Example of TIMELINE:

EVENT	WHEN	EFFECT \ IMPACT	ACTIONS DONE AFTER EVENT
EARTHQUAKE	1968	1200 individuals died Barangay hall collapsed No electricity & water for 6 months	National government helped; people were given food ration
CONFLICT BETWEEN GOVERNMENT SOLDIERS AND REBELS	1976	367 civilians died Communities were evacuated Agricultural farms were destroyed as result of strafing	People evacuated to nearby villages;
FIRE	1984	Health center and 68 houses burned;	Temporary shelter provided by Municipal government; health center re-built after 2 years
LANDSLIDE	1999	509 houses destroyed 1334 lives lost Roads destroyed Some gardens were damaged	Search and rescue by the military, Municipal government sent bulldozers
LANDSLIDE	2001	10 houses destroyed 54 lives lost	Barangay council provided evacuation site for affected families; Municipal government reinforced concrete riprap

1944	First ten families settle in the community.
1951	Construction of the train road and presence of 20 railroad workers.
1954	Train station workers lived in the village. Main railroad station was donated to the community and became school.
1957	Fire in the community destroyed two houses. The church was built with the support of community.
1960	Water system providing portable water to one-third of the population was constructed accounting for about 200 houses in the community. Electricity coverage was extended to half of the population.
1980	Paved road linked to main highway.
1987	Earthquake destroyed many houses and services.
1989	A clinic for 30 beds was inaugurated.



### MAPPING

#### Purpose:

- 1. Map local hazards including climate related ones and assess their risk.
- 2. Clarify the area under consideration in the group discussion.
- 3. Gain comprehensive understanding of the natural and physical features of the local communities.
- 4. Help communities identify the critical hazard types.

#### Process:

- 1. Mapping can be done in larger groups if you want to get a variety of perspectives in one sitting. However, by experience, small groups give everyone the opportunity to provide input. It can be done in gender-specific or age-specific groups (i.e. all men or all women or all youth, all adults), after which they are brought together to see the similarities and differences, discuss, confirm or dispute the presentations.
- 2. It is important to explain to participants the purpose of the mapping activity, e.g. to show hazards or risks and which ones pose a threat when.
- 3. Choose a suitable place (ground, floor or paper) and materials (sticks, stones, seeds, pencils, paper, chalk) for the map.
- 4. Ask the community members to draw a map of their community, with the boundaries clear. If land use map is available the participants can refer to this for a more accurate representation.
- 5. The following should appear in the map:
  - a. Location of the settlement areas (houses) and facilities such as churches/mosques, health clinics, schools, etc.
  - b. Resources in the community, among them farms, livestock areas, fishing areas, and resources such as forested areas, water bodies, wetlands, irrigation channels, storage tanks and cultivated land use types
  - c. Financial and economic support institutions
  - d. Standard map legend symbols are recommended for easy and common understanding. Identify the directional orientation (north, south, west and east) of the map.
- 6. Key informants who have a good overview of the community can be invited during the validation to substantiate and verify the information on the map. When the participants have agreed that the map is representative of their community, begin the second step: identifying the hazards.
- 7. Ask the community members to identify the areas at risk from different types of hazards. Draw the areas at risk directly on the map or on a clear plastic sheet laid on top of the map. These should include:
  - Hazards and safety concerns;
  - Health crises;
  - Socio-political issues such as conflict or land redistribution;
  - Environmental threats.

#### **Guidance notes:**

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- A discussion is facilitated around the current status and possibility of each hazard actually happening.
- Facilitation can lead discussion to cover both visible and invisible impacts of climate change on livelihoods, bio-diversity conservation and ecological services.
- Use the hazard map as an opportunity to discuss longer term changes such as gradual sea level rise, more intense typhoons etc., and how this will affect the most at risk areas. Be careful not to sound alarmist. Can the map be used as reference when planning or designing projects? For example, not building infrastructure too close to the coastline.
- Recent changes to the landscape, due to political, socio-economic or environmental factors are also mapped.

#### **Possible guide questions:**

- Are the hazards natural or man-made?
- Are the hazards different now than they were 10/20/30 years ago? How different and why?
- Where are the key livelihood assets located?
- Who has access to the resources shown on the map? Who controls this access?
- Are these resources always available? Are they changing? Why?
- Which are the main hazards identified and what might be their (root) causes?
- What are the impacts of the hazards identified?
- Has anything been done so far to mitigate the impacts of these hazards?
- Are there places in the community that are safe from the hazards?
- Are these safe places being used as protection from hazards, e.g. to store food and inputs or shelter livestock?
- Who are the members of the community who are most at risk from the different hazards? Why?
- Are the impacts increasing or dropping? Why?

#### Climate change and ecosystem related questions the facilitator may ask:

- Is the use of these resources appropriate or do you think resources are diminishing due to overuse?
- Are the hazards different now than they were 10, 20 and 30 years ago? The number of years should be based on the age of participants. How different and why?
- How do people in the community currently survive and bounce back with the impacts of the specific hazards identified? Are the current survival and bouncing back strategies working? Are they sustainable, particularly in the face of the changes taking place in the landscape and in climate?
- What can the community change? How can the community influence change with the support of others in the short, medium and long terms?



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### SEASONAL CALENDAR

#### **Purpose:**

- 1. To find out what activities take place in different seasons. Calendars can be used to cite different factors: how much work people have at different times of year or how their incomes change accordingly. It can also be used to show the seasonality of other important aspects of livelihoods such as food and water availability.
- 2. To understand livelihoods and survival and bouncing back strategies.
- 3. Compare variations in availability of resources throughout the year, such as food, water and income.
- 4. To identify periods of hazards (e.g. natural, man-made, health related, environmental).
- 5. To explore major changes in land use (or ecosystem) trends in the areas surrounding the community, supported by studies if necessary.
- 6. To provide some preliminary observations on the use of biodiversity and ecosystem's goods and services.
- 7. To analyze changes in seasonal hazards and activities. While the focus is the immediate past year, developments in the past 10/20/30 years must be reviewed.
- 8. To evaluate use of climate information for planning.
- 9. Examine the local relationship between climate and natural hazards.

#### Process:

- 1. You can conduct gender-specific, age-specific, sector-specific focused group discussions to see the different perceptions. Identify how they differ from each other and use this information when drawing up programs and planning events.
- 2. Mark off the months of the year on the horizontal axis and list down on the vertical axis the seasons, events, conditions, etc.

#### **Guidance Notes:**

- If possible, compare and verify these findings with other data sources on climate and environmental degradation/conservation.
- Indicate changes induced by climate in the seasonal calendar through color coding or shading where seasons and activites are getting longer or shorter (see example).
- Incorporate changes induced by ecosystem degradation: if some resources are diminishing and what are the alternatives the community has identified.
- When the calendar is complete, ask the following questions:
  - What are the most important livelihood strategies employed at different points of the year?
  - What are current strategies to survive and bounce back during the difficult times? Are they working? Are more people seeking work overseas? Outside of the community?
  - Are there any differences in the timing of seasons and events as compared to 10/20/30 years ago? A key event in the past can be used as a benchmark in time.
  - Have livelihoods/survival and bouncing back strategies changed due to changing seasons or events? If so, how? Have the changes been due to natural habitats and species loss? If so, how?
  - How are decisions made on timing of livelihoods strategies?
  - Does the community use weather-warning systems to harvest the crops?
  - Has the temperature and rainfall pattern changed?
  - Is there a positive or negative outcome from this change?
- When discussing survival and bouncing back strategies and changes, explore whether existing strategies work in the context of the changing environment. Take the opportunity to discuss the need for new strategies due to climate change and introduce the concept of adaptation.
- Look at climate variations (rainfall changes, times of drought) or real changes (timing of monsoon has changed, more diseases in the community).
- A diagram could be used to indicate how things like planting and harvesting seasons are changing, new weather and health related hazards may be emerging or old ones appearing at unexpected times of the year. Explore positive as well as negative outcomes.

Sample Seasonal Calendar: (from VCA toolbox, InternaWration of Red Cross and Red Crescent Societies, 2007)

PUROK -1 VILLAGE ADLAS SEASONAL PATTERN CHART MAR APR OCT DEC JAN FEB MAY JUN JULY ALIG SEP NOV WEATHER de la 10 HEALTH PROBLEMS CULTURAL ACTIVITIES AVAILABILITY OF BASIC FOOD / GRAINS AVAILABILITY OF OTHER FOOD SOURCES AVAILABILITY OF FODDER AVAILABILITY OF FUELWOOD ON FARM ECONOMIC ACTIVITY OFF-FARM ECONOMIC ACTIVITY HOUSEHOLD INCOME 00  $\odot$ FLOWS

### **TREND ANALYSIS**

#### **Purpose:**

- 1. Gain insight into past climatic hazards and identify trends in their nature, intensity and impacts.
- 2. Understand historical community reactions to and survival and bouncing back strategies for climatic hazards.
- 3. Investigate historical institutional support following hazard events.
- 4. Gather insights into socio-economic and political changes in the past.
- 5. Introduce the concept of a changing climate to the community.

#### **Process:**

- 1. A long piece of string or other material is stretched across the meeting area to represent the passage of time.
- 2. Starting with the earliest hazard event anyone can remember, develop a timeline of major climatic hazard events in the last 30 to 50 years.
- 3. Participants can stand on the line at the appropriate place and describe the event. The facilitator discusses these in the context of local and global climate change.
- 4. Discussion follows around the impacts of the events, community reaction and survival and bouncing back strategies and institutional support. Paper can be put along the length of the line and all the details recorded in different colours.
- 5. Record as well other socio-economic and political events.

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#### Guidance notes:

- The trend analysis is an essential tool for introducing communities to the concept of climate change. It helps identify trends in frequency and severity of climatic hazard events and changing patterns of impact. The facilitator should also be careful to say that an increase in extreme events is likely to be linked to climate change, but cannot be stated categorically. The trend analysis is a good exercise to start a participatory session. It is powerfully visual, offers the opportunity for participation of a large group of people, and introduces the fundamental concepts of hazard, impact, change, survival and bouncing back strategies, and institutional support.
- The trend analysis can be combined with a seasonal calendar related to the sector in order to link changes in crops, local species, water availability, pests and disease, etc.
- The documentation of other socio-economic and political changes is an important part of the exercise, offering insight into other drivers of change in the community which need to be taken into account during the assessment.

#### **Further questions:**

- What are the changes in livelihood strategies over the timeline's period?
- What are the changes in biodiversity and availability of forest products?
- How have survival and bouncing back strategies changed with the changing frequency of events?
- How are the existing survival and bouncing back strategies working?
- What events do you expect to occur in the future?
- How does this expectation of likely events affect your plans for the future?

#### Example of trend analysis for fish catch in the Philippines:

Fishing	# of	Type of	197	0's	198	30's	; 1990's		2000-05		2009	
Gear	Crew	Fish	Catch	Time	Catch	Time	Catch	Time	Catch	Time	Catch	Time
PATITIG	2	Tunong	10kg	2	10kg	2	8kg	2	3kg	2	1kg	2
		Buraw	45kg		10kg		10kg		10kg		5-10pcs	
		Kanasi	10kg		10kg		8kg		2kg		0	
		Palata	х		х		х		4kg		1kg	
		Lapu-lapu	10kg		10kg		10kg		0		0	
		Tuko-tuko	х		х		х		4		0	
		Banagiyaw	х		х		х		4		1	
		Parangan	х		х		х		4		2	
		Tabiros	70kg		50kg		10kg		3kg		2	
		Sibubog	90kg		60kg		40kg		20kg		5-10pcs	
		Kabalyas	40kg		30kg		30kg		20kg		3-5pcs	
		Lipistik	-		-		-		0		0	
PAKITANG	1	Agingoy	18kg	3-8					100kg	4-5	40	4-5
	2	Lipistik	500kg						25kg		15	
		Parangan	18kg						40kg		10kg	
		Kanasi	12kg						30kg		10kg	
LAGARATE	6-7	Lawlaw	30 chest	7					30 chest	12	10 chest	4-5
	2	Lipistik	500kg						25kg		15	

Fishing # of		Fishing	# of	Type of	1970's		1980's		1990's		2000-05		200	09
Gear Crew	Fish	Catch	Time	Catch	Time	Catch	Time	Catch	Time	Catch	9 Time			
BARANGAY		Buraw	10 chest	7					0		0			
		Lipistik	10 chest	7					0		0			
		Parangan	7 chest	6					0		0			
		Turingan	30 chest	5					10 chest		.5 chest			
PALUTANG		Bankulis	200kg	4	100kg		100kg		100kg	4	30kgs	4		
		Tanigue	200kg		100kg		100kg		100kg		30kgs			
		Pating	200kg		100kg		100kg		100kg		30kgs			
		Durado	200kg		100kg		100kg		100kg		30kgs			
		Baholo	200kg		100kg		100kg		100kg		30kgs			
		Barakuda	200kg		100kg		100kg		100kg		30kgs			

### **EXAMPLE OF A TREND LINE FOR WOOD EXTRACTION, KARNATAKA, INDIA**





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### RANKING/SCORING

#### Purpose:

- 1. Identify and compare the priorities of a community.
- 2. Understand community's perception on the information required (e.g. hazard, resources, livelihood, etc.).
- a) Simple Scoring/Ranking

This involves listing of resources in the watershed. Participants are asked to assign a score for each species/product based on preference or importance.

#### b) Pair-wise Ranking

This helps participants to learn about the problems of different community members. Many people's priority problems are those related to the day-to-day struggle to meet basic needs, while others stem from hopes for the future. Some problems are related to gender issues, such as women's lack of control over key resources or the gender-based division of labour. Pairwise ranking highlights how the problems of women and men differ, and where they overlap. Similarly, the priority needs of members of different socio-economic groups are revealed. This process helps identify the relative importance of each issue.

#### Process:

- 1. Organise two separate focus groups: one of women and one of men. Make sure that there is a mix of socio-economic groups included in each.
- 2. Ask participants to name all the hazards natural, man-made, climate related their area is prone to.
- 3. Ask them to write the hazards on both the vertical and horizontal axis of a prepared blank pair-wise ranking matrix (see example).
- 4. Next, get several cards and write a hazard on each one. Present a pair of cards (showing two different hazards) to the groups. Ask them to choose which for them is more important and have them explain the reasons for the choice.
- 5. Record their choice on the prepared matrix. Repeat until all combinations of cards have been presented and decided upon.
- 6. Looking at the completed pair-wise ranking matrix, count the number of times each hazard was selected and rank them. The three most selected hazards are the priority problems of the group.

#### **Guidance notes:**

If the participants find it difficult to decide between two hazards, ask which one affects the poor and most at risk members of the community. This helps the participants to agree more easily on the choice. Or at the onset, the criteria to base their decisions are identified, e.g. degree of impact, frequency.

#### **Further questions:**

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- Which of the hazards are likely to pose the greatest risk in five years' time?
  - How might the risk of each hazard happening change over the next few years?
  - Is there a risk of each hazard's frequency changing in the next few years?
  - Are the risks brought about by each hazard changing?
- How do the hazards affect one another?

### **PROBLEM TREE ANALYSIS**

Problem analysis is a set of techniques for analyzing the existing situation surrounding a given problem situation. It is identifying major problems and visualizing relationships between cause and effect through the use of a **problem tree**.

#### **Process:**

- 1. Using this method entails a set of meta-cards which makes it is easy to post in any portion of board or in a manila paper. The cards must contain phrases, not in sentences, and readable from a distance.
- 2. Start by asking participants to list major problems existing within the framework of the large identified problem. Write each problem on a card. The words specific and actionable.
- 3. Then identify a starter-problem or the core problem.
- 4. Identify the problems that cause the core problem and post it at the lower portion of the board.
- 5. Identify the problems that are considered as effects of the core problem and post it at the upper portion of the board.
- 6. In the process of analyzing each card, the only question to be asked is "Is this problem a cause or an effect of the core problem?" A hierarchy of causes is thus established as well as a hierarchy of effects. The problem tree is then formed. Disagreements in determining the causes and effects should be resolved through consensus.
- 7. Formulate problems as precise and specific as possible.
- 8. A problem is the description of an existing negative condition, and not the absence of a pre-conceived solution.

#### Example:

WRONG: NO PESTICIDES AVAILABLE **RIGHT:** HARVEST REDUCED BY PESTS

9. Avoid use of "lack" or "no" in stating problems; use one-is-to-one correspondence in rooting problems; avoid webbing as this complicates rather than clarify the causes.

10. Only existing problems, not possible, imagined or future problems are to be identified.11. The importance of a problem has nothing to do with its position within the problem tree.

#### **Example of Problem Tree:**



### VENN DIAGRAM

The Venn Diagram consists of circles drawn to indicate different user groups. Overlaps in the circles reflect common membership. It identifies leaders or contact representatives within the larger circles and provides information about local groups and institutions, and their linkages with outside organizations and agencies. Venn diagrams are useful in illustrating groups/sectors in the community and their relationships.

#### Purpose:

The Venn Diagram is a tool that will help participants learn about the importance of local groups and institutions. This can be useful for clarifying decision-making roles and identifying potential conflicts between different socio-economic groups. It is also helpful for identifying linkages between local institutions and those at the intermediate- and macro-levels.

#### Process:

- 1. Organise separate focus groups of women and men but ensuring the mix of socioeconomic groups. Be sure that the poorest and most disadvantaged (by ethnicity or caste etc.) are included, or have their own groups, as appropriate.
- 2. Decide which relationship will be investigated, e.g. the relationship of outside organization with the community, problems and others.
- 3. Venn Diagram can be traced on the ground, but it is especially clear and fun if coloured sticky paper circles are used on a large sheet of flip chart paper. It is helpful to cut out circles in different sizes and colours ahead of time.
- 4. Start by asking the participants to list the local groups and organisations, as well as outside institutions, that are most important to them.
- 5. Then, ask whether each organisation deserves a small, medium or large circle (to represent its relative importance).
- 6. The name or symbol of each organisation should be indicated on each circle. Make sure each organisation has a different colour.
- 7. Ask which institutions work together or have overlapping memberships. The circles should be placed as follows:
  - separate circles = no contact
  - touching circles = information passes between institutions
  - small overlap = some co-operation in decision making
  - large overlap = a lot of co-operation in decision making
- 8. Discuss as many institutions as possible and ask participants to position them in relation to each other. There may be a lot of debate and repositioning of the circles until consensus is reached.

#### Example:

#### Male Venn Diagramm - Jatani Ola



#### PLA tools for developing DRR Measures

These tools are not prescriptions but examples of what approaches and methodologies can be used to ensure that DRR planning becomes participatory.

#### **Tool 1: Vision Mapping**

#### Description

In vision mapping, the community participants are asked to draw a map of their desired and idealized resilient situation. It captures components of their communities that needed to change in order to be resilient. This tool is an effective approach if the community participants are not keen about writing and discussing the technicalities of planning.

#### **Applications in Planning**

- Captures the aspirations of the participants to make their communities resilient
- Captures initial ideas with regards to the components of the plan
- A good starting point to formulate the vision, goals and milestones of the community

#### Procedures

- Ask the community members to draw a map of their village. To help them get the right orientation, ask them to indicate where the sun rises and where it sets.
- Ask them that in drawing their community maps, they focus on answering this question: What is the map of the community in the future when it becomes a resilient community?
- In areas where women and youth participation is constrained by cultural factors, the mapping exercise could be done in three separate groups. The three maps are then compared to come up with one that is acceptable to all.
- After all the vision maps are made, ask the participants to share to the group their maps. Facilitate a discussion to identify key elements of resilience building and what specific things or changes are needed to achieve resilience. Write on the board or on flipcharts the key words that have surfaced in the discussion.

#### Tool 2: Small Group Discussions on People's Aspirations of Resilience

#### Description

Participants share their aspirations and ambitions for themselves and the community with regards to coping with disasters. The method of surfacing these aspirations and ambitions is through small group discussions. They are more effective and intimate if participants are grouped according to sectors.

#### **Applications in Planning**

- Surface the aspirations and ambitions of the community participants with regards to coping.
- It allows the facilitator to identify individual and community level coping activities to achieve their desired states.

#### Procedures

- Divide the participants into small groups of five to six persons. A small number will allow more intimate and uninhibited sharing of ambitions and aspirations. To encourage participation, divide the group according to sectors for instance, one small group for men, women, children, PWDs and elderly.
- Ask each group to answer this question: "To become a resilient community, what are your ambitions and aspirations for yourself, family and community to better cope with disasters?"
- Give time for group members to share their ideas and answer the question. Have each group present their answers to the plenary.
- Note all the key words and ideas from the plenary discussion. They will later be entered in the DRR Plan.



#### Tool 3: "Workshop Method" adopted from the Technology of Participation (ToP)

#### Description

The workshop is one of the many tools of the Technology of Participation developed by the Institute of Cultural Affairs in Belgium (ICA). This tool is both for brainstorming and consensus building. This tool encourages all community members to contribute their ideas in the process of brainstorming and building consensus.

#### **Applications in Planning**

- Gathering community ideas around specific DRR actions to address capacity gaps.
- Build consensus and ownership of ideas presented in the DRR Plan.

#### Procedures

- Write the following focus question on a flip-chart or board: "What are the actions that should be taken to solve the gaps in capacity?"
- Ask participants to think individually. Have them write their answers on metacards, with one idea per metacard. Give each participant at least three metacards.
- Form small groups of three to four people and tell the participants to share their cards with the small group. After all have shared their ideas, ask each small group to choose seven ideas that best capture all their ideas. Five of these will be presented to the plenary and two will be kept on hand for sharing later.
- Gather all idea cards from the groups and put them up on a board for everybody to see.
- In the plenary discussion, ask the participants to cluster similar ideas. This may mean having the same action or different actions but with same purpose.
- After clustering, ask the groups again for their reserve ideas. Ask only those ideas that are new and are not on the board.
- Ask the participants if all the capacity gaps have been addressed. Then gather more idea cards to address the capacity gaps.
- Close the discussion by saying that the ideas to address capacity gaps will now be used for laying down their DRR Plan.

PLA tool	Purpose	Application/s (Other)	Alternative Method/s
Hazard Source-Force Tree / Problem tree	To enable the community to identify the hazards and its effects on community life as well as the environment. Very easy to apply, this tool enables community members to analyze the factors that catalyze a hazard and the forces of a hazard that will affect them.	Hazard Assessment Capacity Assessment	Identifying "Cause" and "Origin" of hazards "Direct cause" and "direct impacts" of hazard
Scoring matrix	After the community has identified the common hazards in the area, it is important for its members to identify the most important ones for further assessment. The scoring matrix can be used for this purpose.	Hazard Assessment (Hazard Ranking) Disaster Risk Assessment	Pair wise ranking Community members compare any two hazards and agree on which of the two is more important. The number of times a hazard is deemed more important than another hazard is counted. The higher the number

#### Suggested PLA tools in PDRA
PLA tool	Purpose	Application/s (Other)	Alternative Method/s
			of times a hazard is preferred over the others, the higher its importance.
Mapping (Hazard)	Helps community members identify the common hazards in the community. The participants can also use the map to mark areas where the hazard has been experienced.	Hazard assessment	Vulnerability assessment Capacity assessment Contingency plan
Population and community resource mapping	This is to enable community participants to identify and analyze the vulnerable groups according to the degree of exposure to the hazard based on location and to identity the physical elements that can be used to reduce the hazard impact.	Hazard assessment Capacity assessment Contingency planning	
Story-telling	<ul> <li>The main purpose of the tool is to enable community participants to identify the behavior (characteristics) of a hazard in terms of</li> <li>Warning signs and signals,</li> <li>Fore warning</li> <li>Speed of onset</li> <li>Frequency</li> <li>Period of occurrence</li> <li>Duration.</li> </ul>	Hazard Assessment (Hazard Characterization)	
Historical transect/ trend	This tool enables community participants to identify and analyze both human and non- human elements at risk. Historical transect is used to depict how a hazard has affected resources in the community through the years and its negative impact on the lives of the community. Transect is also a good tool for building rapport with members of the community and for studying the physical attributes of the locality through direct observation.		

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PLA tool	Purpose	Application/s (Other)	Alternative Method/s
Venn diagram (Chapati)	The purpose of this tool is to enable the community to identify different agencies or individuals that provide DRR services and assistance to the community as well as their influence, effectiveness and relationship. A Venn diagram allows the participants to identify the organizations or actors that are working in the community and to analyse their importance to, and influence on, the life of community. Again participants use their own criteria to determine effective and ineffective services and actors.	Hazard Assessment Capacity Assessment	Can be use to identify DRR actors

# GENDER-RESPONSIVE COMMUNITY MANAGED DISASTER RISK REDUCTION



# Duration: 3 hours

# Description

This session provides an overview on the need to make CMDRR gender-responsive. When one does CMDRR it is already implied that women and men are equally involved in the program. CMDRR involves people from different sectors of society (men, women, youth and elderly) but getting women to truly participate appears to be difficult. If they are present in groups, this does not necessarily mean that they are actively contributing to the planning and implementation of the program.

The challenge is to make sure that they are actively participating at all levels of the CMDRR process and the goal, therefore, is to ensure that both the strategic and practical needs of women and men, and girls and boys are addressed in DRR through their direct participation in the process.

# **Learning Objectives**

At end of the session participants should be able to:

1. Describe how the CMDRR process can effectively address the different needs of women and men;



- 2. Discuss the required procedures to ensure that the skills and capacities of women and men are effectively utilized in DRR process;
- 3. Expound on the need to gather, analyze and use gender disaggregated information for all DRR related actions and decisions

#### Learning aids and materials

- One roll of flip chart paper
- Markers of assorted colors
- Card papers
- Masking tape
- Attachment 1. Material for Part 1, Activity 2
- Attachment 2. Material for Part 2, Activity 2
- Attachment 3. Case stories
- Attachment 4. Handout Gendered Impacts of Disasters
- Attachment 5. Reading Material Why Gender analysis in CMDRR?
- Attachment 6. An overview of Participatory Gender Analysis Tools in CMDRR
- Attachment 7. Material for Part 3, Activity 2

# Procedure

#### Part 1. The difference between sex and gender

#### Activity 1

- 1. Give out cards to each participant and ask them to describe what they understand by the terms "sex" and "gender".
- 2. Display the cards on a board/wall and ask the participants to study the differences between the two terms.
- 3. Encourage discussions and conclude by pointing out that the two terms are not the same. For example elaborate on the following points.

Gender is not the same as sex. They are not synonymous. While sex refers to the biological characteristics that define males and females primarily according to reproductive capabilities or potentials, gender refers to the economic, social, political and cultural attributes and opportunities, roles and responsibilities that are associated with being a man or a woman. Sex is universal and unchanging. Gender is a socially-defined category that has different meanings around the world and changes over time.

# Activity 2

- 1. Split the class into three groups and provide the following instructions:
  - Group 1: List the common productive roles for men and boys on one side and for women and girls on the other.
  - Group 2: List the common reproductive roles for men and boys on one side and for women and girls on the other
  - Group 3: List the common community/social roles for men and boys on one side and for women and girls on the other
- 2. Ask the participants to share their findings in the plenary (Use the table in Attachment 1 as reference).



## Activity 1

- 1. Ask the participants to identify a hazard that has hit their community recently.
- 2. Divide the participants into two groups one group for men and one group for women.
- 3. Ask each group to answer the following questions and follow the instructions:
  - How were the women and girls in your community affected by the hazard? How were the men and boys in your community affected by the hazard?
  - Do you think the hazard affected women and men differently? In what ways?
  - Why are there differences in how the hazard affected the women and men?
  - Do women and men cope/respond to disaster differently? If so, in what way? Why?
  - List down the respective roles of men and women before and during this particular hazard event. If appropriate, use Attachment 2 table to respond.
- 4. Ask both groups to report their answers.
- 5. Summarize the workshop results and share the cases where women and men are affected differently by disaster. Distribute Attachment 3 (case story) as reference.

#### Note to facilitator

By using the information in Attachment 2 the facilitator can highlight the need to do gender analysis to help in identifying:

- Who may be affected most in a hazard or disaster event?
- Who may have the needed resources to cope better?
- Who makes the decision and how the decision may affect men and women differently.
- What would be done to close the gap if any?



Additional gender analysis tools are provided in Attachment 6.

6. Wrap up the activity and highlight the following points:

- Hazards affect women and men differently because of their different needs and culturally-dictated roles in the home, in production and in the community. For instance, caring for the family and the home is usually seen as a woman's primary responsibility whereas production/earning a living for the family is the man's responsibility.
- Just as there are differences in how women and men are affected by hazards, they also have various ways and capacities for coping with disaster because of culturally dictatedroles and perceptions.

#### Part 3. Incorporating gender perspective in CMDRR (1 hour)

#### Activity 1

- 1. Circulate cards in the room and ask each participant to write how they think gender can be taken into consideration during the DRR planning, implementation, community organization building, and monitoring and evaluation.
- 2. Categorize the cards and discuss how gender can be considered at all levels in the CMDRR process. Distribute Attachment 4 (Gendered impacts of disasters) and Attachment 5 (Why gender analysis in CMDRR?)



### Activity 2

Ask participants to be in groups and identify how women and girls can be supported, as facilitators or community members, to participate at all levels of the CMDRR process. Use Attachment 7 as appropriate.

### Note to facilitator

#### Practical tools to enhance the inclusion of gender in CMDRR:

- Encourage women's participation by involving women's groups (if they are present in the community) when organizing DRR committees;
- Part of the process of organizing the community can include the formation of women's self-help groups;
- If women's groups do not exist already and this is not planned to be organized either, gain women's trust by investing time in building relationships, by visiting them in their homes and talking to them;



- When talking to them, make efforts to convince women and their husbands that women are needed in the CMDRR process; and
- Make sure that gender issues are addressed through all phases, not only at the beginning
  - or at the end, but in all five aspects of CMDRR mentioned earlier.

Summarize the session as follows: (This can be reproduced as handout)

- The differences between men and women must be considered when doing Participatory Disaster Risk Analysis and when planning DRR measures. But instead of perpetuating the "stereotypes", encourage the participants to see that both women's and men's contributions in the home, in production and community management are equally important.
- DRR measures must be able to develop the capacities of both women and men in all spheres and aspects of their lives (family, production, community) as they are equal partners in CMDRR.

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Attachment 1. Material for Part1, Activity 2.

# Traditional roles of men and women in a pastoral community



Types of role	Picture	Men and boys generally	Women and girls generally
Productive		Care for livestock, search for pastures, plough, do heavy field work, seek work in towns, manage grazing and water resources	Look after young and lactating animals, graze and water sheep and goats, cultivate, plant, weed, harvest and sell crops, make and sell handicrafts
Reproductive		Provide security, arrange marriages, provide guidance	Take care of the family, prepare food, wash and clean, fetch water and firewood, move and build houses during migration
Community/ Social		Make major decisions affecting the community, communicate with outsiders, provide security	Look after neighbors' children, care for sick and elderly

2.1



# Attachment 2. Material for Part 2, Activity 1



Duration	Women and girls	Roles	Men and boys	Roles
Before the hazard	Young girls		Young boys	
event	Adult women		Adult men	
	Elderly women		Elderly men	
	Women with special conditions		Men in special conditions	
During the Hazard	Young girls		Young boys	
event	Adult women		Adult men	
	Elderly women		Elderly men	
	Women with special conditions		Men with special conditions	

# The Tsunami's Impact on Women<sup>1</sup>



In 2004, Tsunamis have killed more than 220,000 people in countries across Southeast Asia, South Asia and East Africa. The Red Cross has also reported that more than 1.6 million people have been displaced. There is little accurate gender-based data. A survey by Oxfam International, for example, has revealed that in the Aceh Basar district in Indonesia, only 189 of 679 survivors were female or a male-female ratio of almost 3:1.

In the four villages of North Aceh District, on the other hand, females accounted for 77 percent of deaths (284 out of 366 dead) while in the worst affected village of Kuala Cangkoy, 80 percent of the dead were female with a ratio of 4:1. In Cuddalore, India, the number of dead females was almost three times compared to dead males or 391 female deaths compared with only 146 for men.

The causes of these patterns appear similar across the region. Many women died because they:

- stayed behind to look for their children and other relatives;
- more men know how to swim or climb trees than women;
- while the men were out at sea fishing, women were at the shoreline waiting for their husbands when the tsunami hit ground.

While these have yet be to fully understood, one major factor noted was the unwillingness of women to abandon their children and their assets when the tsunami struck.

# Excerpts from UN DAW report on the Tsunami<sup>2</sup>

Research in a Peruvian fishing village focused on forecasting methods and impacts from climate variability, specifically an El Nino-Southern Oscillation (ENSO) warm event. After a strong El Nino event, it was discovered that the fishermen (all males) had been warned about the upcoming event, and knew that the fishing would be poor to non-existent for the next several months. The women in the village did not receive any warnings about the upcoming conditions, because the climate forecasters issued warnings to those who would be directly impacted. The result of the ENSO warm event was increased poverty, unemployment, and harsh economic conditions. The women in the village manage the household budgets. Had they known about the onset of the ENSO, they would have saved more household funds and budgeted expenses differently to prepare for the event. For some reasons (sociocultural), the men never discussed the warnings with their wives. Women are primarily responsible for gardening/agriculture, securing land-based food resources, and budgeting water resources for household consumption and gardening. Without access to information, they cannot minimize risks associated with their regular activities.

<sup>2</sup> Anderson, Cheryl. Social Science Research Institute, University of Hawaii, as cited in a UN DAW report on the Tsunami

<sup>&</sup>lt;sup>1</sup> Oxfam Briefing Note, Oxfam International, March 2005



# **Gendered Impacts of Disasters**

When a hazard strikes, men and women have different abilities and ways of responding, and, in the end, the impacts are different. It has been widely observed, researched and documented that women are more at risk than their male counterparts of the same social classes, races, ethnic and age groups during all phases of a disaster. Gender-based social, economic, religious and cultural constructs marginalize women across all communities and groups, irrespective of class, caste, economic standing, status, ethnicity or age. Therefore, addressing gender relations in DRR requires more attention on the status of women, along with the challenges they face.

Women have less ownership of assets and property. They have fewer decision-making possibilities within the family and in the public sphere, and they earn less – women all over the world are paid less than men for equal work. Also, women are less skilled and have fewer opportunities to develop skills. They face greater risk of sexual abuse, domestic and other forms of violence, and are often dominated by male members in the family. Women are socially and economically weaker than men, unequal to their male counterparts and hold a lower status within their communities.

Gender-based inequalities and low capacities place women at greater degrees of risk to disasters, including less access to early warning, to policy and decision making in risk reduction and disaster management, to knowledge and information, to relief assistance, in addition to higher level of illiteracy, poverty and risk of sexual and domestic violence and sexual abuse.

Men, too, can be harmed by gender-based social expectations, especially in the aftermath of disasters. Socially and culturally, they are expected to deal with their own losses and grieve alone. The formal aspects of psychosocial support bypass men, since, according to stereotypical views, they are expected to be strong and face the crisis in a "manly" manner. As a result, gaps in men's coping capacities in such circumstances can victimize them in the recovery process.

Although women are often more at risk than men, the continuous focus on women's risk alone can be contentious, as this promotes the perception of women as victims, rather than as capable and equal actors. This contributes to the current situation where men's roles and responsibilities in DRR are highly recognized, whereas women's skills, capabilities and contributions to DRR remain invisible. As a result, women are disadvantaged on both these counts.

Such dual disadvantage results in higher risk level and dependency, and denied opportunities to learn and grow and provide leadership and contribute to DRR efforts. Because of their different role definitions and life experiences, men and women can complement each other when contributing to risk reduction and disaster management. Good practices of gender-inclusive DRR observed across the globe are evidence of this.

# Inclusion of gender concerns in DRR

**Gender analysis of disaster risks:** All relevant interventions in the context of disaster risk reduction need to have built-in systems of gender analysis. Women need to be trained and participate in PDRAs, DRR planning, and implementation. Assessing a certain community's disaster risk level should include listing of all elements at risk considering gender as key criteria. The assessments need to be gendered and make special note of traditional coping strategies, other survivability mechanisms, including forms of community support in the face of disasters. All efforts should be made to build on these strengths, support women's resilience and avoid common pitfalls of humanitarian agencies undermining traditional coping mechanisms through culturally inappropriate interventions.

**Cender-disaggregated data:** All data collected during the hazard, vulnerability, capacity, and or disaster risk reduction assessments needs to be disaggregated by gender and, where possible, also by age and special conditions. While it may be difficult to collect data broken down by gender and age at the very onset of a disaster situation, all efforts should be made to start the collection of such data as early as possible and to do it consistently. Gender-disaggregated data allows communities and agencies to assess the impact of disaster risk reduction on men, women, boys and girls and alert them to constraints experienced by any group from accessing, participating and benefitting from interventions.

During emergencies, the collection of gender-disaggregated data needs to extend to the household level. Assuming that all households are headed by men, targeting them for relief distribution and food aid puts women at a disadvantaged position. As a result many communities report cases of incorrect appropriation and misuse. In the case of polygamous communities, it is important that each co-wife and her children are registered separately so as to ensure that they are not left out. The participation of the community in the selection of intervention helps ensure accurate targeting. Furthermore, humanitarian actors need to make gender-sensitivity a key component of all monitoring and evaluation of disaster risk reduction activities, and all indicators (for example of relief commodities distributed or emergency shelter provided) need to be gender-disaggregated.

In budgeting, program planning and reporting, it is important to indicate the amount of expenditure and type of relief commodities that are distributed to and utilized by different sections of the community.

**Full participation:** The most effective route to ensuring gender-sensitive interventions is through the full participation of women and girls at all stages of disaster risk reduction interventions. Women (from affected communities in particular) should participate fully in teams assessing risks of disasters and strategies to prevent and mitigate the risk, enhancing individual survivability and community readiness as well as in all groups and committees implementing response strategies including in food distribution task forces. Furthermore, it is important to ensure that the participation of women and girls is not 'tokenistic'; that they are encouraged to play a key role in strategic decision-making, such as in leading and taking key membership positions in community DRR committees and emergency response taskforces.

Agencies working in DRR and emergencies report a significant improvement in the quality of service delivery when women are involved in decision-making, both in the context of emergencies and development. The same is true for women's involvement at organizational level. Agencies and governments need to adopt practices that encourage women to work and take part in disaster risk reduction activities and decision-making. In addition, all staff working with communities affected by disaster need to be trained on gender-sensitivity. Agencies should strongly monitor adherence to relevant guidelines to ensure the participation of women and girls and adopt a 'zero-tolerance' approach to gender based violence by their staff and employees. Awareness should be created that sexual violence is expressly prohibited by international humanitarian law.

The 2004 UNISDR International Conference on 'Gender and Disaster Risk Reduction while discussing the development of a strategy for incorporating gender fair practices in disaster risk reduction came up with a set of recommendations.

These recommendations are all relevant and provide concrete guidelines on how to ensure that gender perspectives are consistently integrated into all aspects of DRR:

- 1. Mainstream a gender perspective in all disaster management and DRR initiatives.
- 2. Build capacity on DRR in women's groups and community-based organizations.
- 3. Ensure gender mainstreaming in communications, training and education on DRR.
- 4. Ensure opportunities for women in science and technology regarding DRR.
- 5. Ensure gender mainstreaming in DRR program implementation, monitoring and evaluation.

Cordaid Policy paper: DRR and CCA and Gender

### **Attachment 5. Reading Material**



# Why Gender analysis in CMDRR?

Several different Gender Analysis Frameworks exist today. They are step by step tools which help to raise questions, analyze information, and develop strategies to increase women and men's participation in CMDRR programmes and benefit from them.

#### Gender Analysis Frameworks are concerned with:

- 1. The development context or patterns in an area, answering the questions, "What is getting better? What is getting worse?" for both women and men.
- 2. Hazard events or disasters affect women and men differently answering the question "who is affected and how?
- 3. Women and men's activities and roles in the DRR vary, answering the questions, "Who does what?
- 4. Women and men's access to and control over resources differ, answering the questions: Who has what?, Who needs what?, who makes what decisions over which resources and,
- 5. The organizations dealing with DRR need to answer the questions, "What should be done to close the gaps between what women and men need?

#### Gender Analysis can be used, for example, in the following situations:

- Profiling of stakeholders to understand who are the stakeholders and those most affected by hazards that are prevalent in the area
- Development of community risk and vulnerability assessment to ensure that the needs of both women and men are identified in a participatory manner
- Development of DRR community action plans to ensure that the contributions of both women and men are adequately recognized in determining access to and control over resources
- Development of DRR policies and procedures to ensure sustainable and equitable participation by all community members
- Development of criteria for training, selection, or recruitment to ensure that women and men have equal opportunities to progress and the capacities of both women and men are effectively utilized

Adapted from FAO. "Gender issues in the Zambia Forestry Action Program" (1997).



# An overview of Participatory Gender Analysis Tools in CMDRR

Issue	Specific Tool	General Tool
Issues of DRR Related labour, tasks and responsibilities.	<ul><li>Daily activity profile</li><li>Seasonal calendar</li></ul>	<ul> <li>Various PDRA tools</li> <li>Review of secondary data</li> </ul>
Decision-Making Power	<ul> <li>Decision-Making matrix</li> <li>Household budget</li> </ul>	<ul> <li>Direct observation</li> </ul>
Access to and control over natural resources.	<ul> <li>Household budget</li> <li>Transect walk</li> <li>Household resource flow diagram, benefits chart, mobility map,</li> </ul>	<ul> <li>Semi-structured interviews</li> <li>Individual or key informant interviews</li> </ul>
External factors	<ul> <li>Organizational linkages diagram (Venn diagram)</li> <li>Trend line</li> <li>Critical incident analysis</li> </ul>	<ul> <li>Household interviews</li> <li>(Focus) group interviews.</li> </ul>
Constraints, problems and opportunities	<ul> <li>Problem drawing</li> <li>Ranking and scoring matrices</li> <li>Problem tree - objective tree</li> </ul>	

# **Activities by sector**

In addition to the collection of gender-disaggregated data, gender-analysis and ensuring the participation of women, humanitarian actors might consider adopting gender-sensitive interventions that encourage gender equality and actively address gender based violence in the framework of disaster risk reduction.

# **Reference Materials**

- Cordaid and IIRR, 2000, Drought Cycle Management: A toolkit for the dry land of the greater horn UNISDR, UNDP, and IUCN (2009) International Strategy for Disaster Risk Reduction: Making Disaster Risk Reduction Gender Sensitive: Policy and Practical Guidelines. UNISDR, UNDP and IUCN, 2009
- UNISDR (2009) Making Disaster Risk Reduction Gender-Sensitive: Policy and Practical Guidelines, Geneva, Switzerland, June 2009.

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Attachment 7. Material for Part 3, Activity 2



# Women and girls' participation in CMDRR

STEPS	WOMEN AND GIRLS AS FACILITATORS	WOMEN AND GIRLS AS MEMBERS OF THE TARGET COMMUNITY
Entry, immersion and rapport building		
Hazard assessment		
Capacity assessment		
Vulnerability assessment		
Risk analysis		
Community development plan		
Contingency plan		
M&E		
Leadership in the local community organization		

# SUB MODULE 1

# PARTICIPATORY DISASTER RISK ASSESSMENT

- Hazard Assessment
- Vulnerability Assessment
- Capacity Assessment
- Disaster Risk Analysis
- Perceptions in Risk Assessment



# HAZARD ASSESSMENT



Duration: 1 hour 30 minutes

# Description

This session characterizes selected hazards and identifies their elements in terms of how they can affect the individuals and the community. It will walk the participants through the process of conducting a hazard assessment exercise.

# **Learning Objectives**

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

- 1. Clarify the definition of the hazard and its distinct characteristics;
- 2. Carry out hazard assessment using a suggested PLA tool.





#### Learning aids and materials

- Flip chart paper
- Marker pens of assorted colors
- Attachment 1. Handout Hazard Assessment
- Attachment 2. Handout Hazard assessment exercise form
- Attachment 3. Handout Indigenous signs of hazard events
- Attachment 4. Handout Case story: Shoot to score not to kill

# Procedure

Recap the key learning points in the previous session and explain that hazard, vulnerability and capacity assessments are the key components in Participatory Disaster Risk Assessment. In this session, the focus is on hazard assessment which is the first step.

#### Activity 1. Selecting and sequencing PLA tools in Hazard assessment (40 minutes)

Begin the discussion using Attachment 1 to explain the concept of a hazard and hazard assessment.

- 1. Group the participants into groups of three to five persons. Ask each group to brainstorm and identify at least three hazards that they have experienced or that commonly strike their community. Instruct them to list their responses on a piece of paper.
- 2. Distribute a copy of Attachment 2 (Hazard assessment form) to the participants. Explain the various fields in the form. Ask them the definitions of these terms. Refer them to the handout on terminologies distributed during Module 1.
- 3. Refer back again to the attachment on PLA Tool Box that can be found from the previous sessions. Let participants identify what PLA tools are to be used in gathering information on the characteristics of the hazard. Highlight to them that their selected PLA tool must be able to gather the necessary information needed for the Hazard assessment.

# Note to facilitator

Although the hazard form can be used to gather information, encourage the use of PLA tools especially when dealing with communities to ensure inclusive participation.



4. Clarify that before selecting, applying and sequencing PLA tools in hazard assessment, there are systematic steps that need to be followed which are Identification, Prioritization and Characterization. Please refer to Attachment 1.

## Activity 2. Exercise in applying PLA tools in hazard assessment (40 minutes)

- 1. Begin the activity by demonstrating the use of PLA tools from the PLA toolbox. For example you can use ranking to prioritize hazards. Please refer to Attachment 4 of Session 1 on how to facilitate the said PLA tool.
- 2. After demonstrating, let one participant within each group facilitate and demonstrate their selected PLA tool that can be use in hazard assessment. Ensure that participants that will facilitate within their group must have different PLA tools when demonstrating. Encourage participants to listen and ask questions if they have.

3. Make sure that at the end of the activity, participants were able to capture necessary information in the Hazard assessment form and be able to utilize different PLA tools available that can be used in Hazard assessment.

# Synthesis (10 minutes)

- 1. Hazard assessment defines the threats and understands the nature and behavior of particular hazards.
- 2. The assessment brings out information regarding the hazards, specifically, the cause of the hazard, the hazard force, warning signs and signals, forewarning, speed of onset, frequency, period of occurrence and duration.
- 3. The characteristics of a hazard in one community are different in other communities.

# **Suggested readings**

- ADPC. 1995. Hazard Assessment and Vulnerability Assessment, DMC Hand-out.
- Bellers, R. 1999. Disaster Risk Assessment Workshop sponsored by the South Banks University and Center for Disaster Preparedness.
- IIRR, Cordaid. 2007. Building Resilient Communities. A Training Manual on Community Managed Disaster Risk Reduction.



2 Sub 1.1

# Attachment 1. Handout



# Hazard Assessment<sup>1</sup>

Hazards are usually referred to by many people as disasters. A hazard, however, can only be called a disaster when it hits a community which is unable to cope with its effects. This paper seeks to clarify the definition of hazard and its categories. It also discusses the elements in characterizing hazards and moves towards discussing hazard assessment.

# What is a Hazard?

According to the Glossary of Terms of United Nations International Strategy for Disaster Reduction (UN-ISDR), a hazard is "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."

# Hazards can be divided as follows:<sup>2</sup>

Those based in nature: earthquakes, droughts, floods, avalanches, etc. Those based in violence: war, armed conflict, physical assault, etc. Those based in deterioration: declining health, education and other social services; environmental degradation, etc.

Those based in the failings of industrialized society: technological failures, oil spillage, factory explosions, fires, gas leakages, transport collisions.

To further understand the behavior and nature of a hazard, it is necessary to characterize a hazard. Answering the following questions will help us do this:

What is the root cause of the hazard? What will hit me? (force) When will it hit me and how will I know that it will hit me? The answers to these questions correspond to the categories in the table below:

Character	What is it? It will be hit by what?	When will it hit me and how will I know that it will hit me?
Nature and behavior	Force	Warning signs and signals, forewarning, speed of onset, frequency, period of occurrence and duration

The next table enumerates the hazards and the corresponding types of force.

<sup>&</sup>lt;sup>1</sup> Developed by Rustico Biñas, Global Advisor for DRR, 2007

<sup>&</sup>lt;sup>2</sup> Source: Bellers, 1999

### The forces behind selected hazards:

Hazard Types	Force – the power that is produced when something		
	moves		
I. Natural Hazards			
Typhoon, hurricane, cyclone	Water – flash floods, storm surge, tidal waves, Wind– flying objects, uprooting material objects, Land – landslides, mud flow		
Volcanic eruption	Ash falls, rocks, lava, gases		
Earthquake	Falling hard objects, tsunami, liquefaction		
Flood	Water – flashes of volume of water, epidemics		
Fires (settlement/forest)	Heat – burns		
Drought	Heat		
II. Human Related Actions			
Violence War and Conflict	Guns and bullets, machetes, fire from burning houses		
Deterioration of basic services/obstacles to realization of human rights			
Declining health, education and other social services; environmental degradation, etc.(Government inaction)	Malnutrition – inadequate food intake, inadequate access to food, illness, diseases and death Bird flu – the virus Harsh environmental changes - heat waves		
Famine			
HIV-Aids	Virus – infections, epidemics		
Failing of industrialize societies	5		
Transport collisions industrial explosions oil spillage Technological failures	Physical / hard object Pollution, radio-activity, biological weapon Pollution, chemical contamination of air, land and water Mechanical accidents, fires, gas leakage, contamination in the air, land and water.		
Environmental degradation			
Flood	Flashes of volumes of water, debris, water borne diseases, epidemics		
Drought	Heat		
Food insecurity	Inadequate food intake, inadequate access to food, illness, diseases		
Insect infestation	crop failuros		
Insect infestation	diseases		

There are hazards that affect wider communities and some that affect individuals. There are also hazards that produce secondary hazards.

Community Hazard Assessment refers to the community defining the threats and understands the nature and behavior of particular hazards. The assessment brings out information on the characteristics of hazards, specifically, the hazard force, warning signs and signals, forewarning, speed of onset, frequency, period of occurrence and duration.

# 2 Sub 1.1



### Sequencing of tools for Hazard assessment

The tools selection and sequencing will facilitate systematic assessment of hazard.

The following are the steps in hazard assessment:

- 1. **Identification** assessment of disaster risk is hazard specific although many hazards interact and in some cases act as a trigger for another hazard. The assessment should begin with the identification of prevalent hazards in the community.
- 2. **Prioritization** After the community has identified the prevalent hazards, it is necessary to identify the most important ones for further assessment. At this stage, the community develops the criteria to be used in comparing and ranking the various hazards. Based on the ranking, the most important ones are selected for further analysis.
- 3. **Characterization** The prioritized hazards are analysed further to establish their characteristics, such as their causes, effects, warning signs and signals, force, period of occurrence, duration and frequency.

# Note to facilitator

- Suggested PLA tools for hazard assessment
- Mapping (of hazards)
- Ranking / scoring
- Problem tree
- Sessionality calendar
- Story telling



Attachment 2. Handout

# Hazard Assessment Form

Hazard: \_\_\_\_\_

Characteristics	Elements of	Analytical Description of Hazard	Exposure	Variables
of Hazard	Characteristic of Hazard		How will it affect me?	How will it affect my community?
Cause / Origin				
Force				
Warning signs and signals				
Forewarning				
Speed of onset				
Frequency				
Period of occurrence				
Duration				



# 2 Sub 1.1







# Attachment 3. Handout



# Indigenous signs of hazard events

Hazard	Indigenous
Typhoon	ducks and chickens fly ants crawl up the wall domestic animals are restless the horizon is colored orange the surrounding is very calm and quiet leaves are swaying unusual movements of animals coconut trunks collapse clothes lines are making whistling sounds
Volcanic Eruption	drying up of wells and decrease in water levels animals go down the mountain increase in steam emission color of the steam changes volcanic tremors rumbling sounds crater glows variation in the temperature of hot springs
Earthquake	unusual weather condition (dark and gloomy; fog is grayish unusual/restless behavior of animals (such as cockroaches, dogs, and fowls) – based on indigenous knowledge handed down by ancestors discoloration of artesian wells dogs start barking chickens make uneasy movements
Flash Floods	gloomy weather heavy rainfall, big raindrops unusual animal behavior water condition – color of the water changes rise in the water level of river channel thunderstorm affects the river flow
Landslide	depends on whether the soil is saturated or not Land saturation is determined by squeezing the soil and assessing its moisture content. This is a combination of scientific and indigenous method

#### Attachment 4. Handout - Case story

Conflict in many parts of the world is a hazard to many people. But unlike natural hazards, conflict is human induced and is quite difficult to characterize and assess because it deals with human nature, culture and customs. There have been several stories in Africa where conflict can



successfully be transformed. Below is a story that describes how conflict can be transformed. A good process of assessing conflict as a hazard is an important first step to transform conflicts. This can be done by understanding the root causes of conflicts, the period it occurs, its effects and other characteristics.

# SHOOT TO SCORE NOT TO KILL

#### Background

The elders have always had meetings under the traditional shade of trees. They use the place to strategize what is expected of the community youths who are warriors. Their only role is to fight the perceived enemy tribes and they have no voice of their own just like the women in the community. Unlike in other areas the young children and youths of Marsabit and northern Kenya region had no space for playing any sports, all they were trained to do from childhood is how to shoot and kill. The killers are celebrated as heroes and will even be given the most beautiful girls.

#### What we have innovated as HODI with Boys

As HODI we use sports as a unifying factor in blood fields of Marsabit to help them break free of the violence. Through our initiative of Shoot to Score not to Kill the youths have found their voice and they are able to stand and up and say no to violence. Over 10,000 youths have been reached since inception and more are being recruited each day. This has reduced the level of violence to just 25 percent as compared to initial figures of close to 75 percent overall in Northern Kenya.

The replacement of the red card and yellow card with green and white has removed the culture of violence among the youth. In most instances youths from fighting communities come together with a mindset to kill to be initiated into manhood. But after taking part in the HODI "shoot to score not to kill" intervention they had an opportunity to make the decision for themselves. They have an opportunity firsthand to interact with the forbidden group. Instead of conforming to the expected attitude, they formed their own independent from that of the elders. While the culture is still alive and active, the HODI initiative has been able to overcome the existing obstacles and young leaders are emerging to address issues affecting them and the community.

#### What we have innovated as HODI with Girls

Currently, the girls in the communities are not to be seen or heard from and are restricted to child marriages. Our girl's team is the first ever to play and even come out as young teenagers who are completely closed off the mainstream community due to societal norms and customs. Having been born and brought up in Northern Kenya as a girl, I had my own challenges to deal with patriarchy and ill mistreatment of a girl-child. The main goal of our initiative is to give girls a voice in dealing with issues that affect them – ranging from conflict, early forced marriages, FGM, dropping out, poverty and even the basic right to what they actually want for themselves.

We have used sports to bring youths from warring tribes together, to share their experiences, learn from them and shape their future. The young girls and boys have learnt to deal with attitude and how they are viewed by the society and how they view others in the broader community and girls from different tribes. Change from the mainstream belief that sports is for boys and not girls in a hirable or buibui, to girls who can kick the ball and kick it in a style with all tactics' as applied by the boys. The girls have learnt to deal with being the invisible ones to those who can come out and be watched and make the people proud. The girls have found a voice through football and can now hope for the future. So many girls have been saved from forced child marriages through the initiative of breaking the silence on issues affecting them in the community.

# Replication

The HODI shoot to score not to kill has gained global recognition through the film "Soldiers of Peace," a Hollywood film narrated by Michael Douglas. It is a feature film which show cases success stories from 14 countries in the world which are unique. The stories include a profile of HODI initiatives being studied in over 2,000 children in 20 schools across the globe from Chile, Cambodia, Israel, Germany, Afghanistan, India and Kenya. Also the initiative has won several awards and recognitions among them.

- Unsung Hero, 2008
- Soldiers of Peace, 2008 with the link (http://www.soldiersofpeacemovie.com/
- Courage to Lead, 2009
- Shoot to Score Not to Kill photo reportage with the (http://vimeo.com/25993855)
- Peace Count Feature
- Streetfootballworld network member
- Stuttgart Peace Prize, 2011 (http://www.sportanddev.org/en/newsnviews/news/?3282/ Stuttgart-Peace-Award)



# VULNERABILITY ASSESSMENT



Duration: 2 hours

# Description

This session compares the two views in understanding vulnerability. It engages the participants in undertaking vulnerability assessment guided by the chosen view that defines vulnerability in relation to location.

# **Learning Objectives**

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

- 1. Identify and differentiate the two views on vulnerability.
- 2. Carry out vulnerability assessment using suggested PLA tools and compile the findings with the given tool.



#### Learning aids and materials

- 1 flip chart stand
- 1 roll of flip chart paper
- Markers of assorted colors
- Attachment 1. Reading material Vulnerability Assessment
- Attachment 2. Handout Vulnerability Assessment Form
- Attachment 3. Output of Vulnerability Assessment conducted a field setting

# Procedure

#### Activity 1. Brainstorming on the definition of Vulnerability (20 minutes)

- 1. Link this session to the previous one by explaining that Hazard is one of the three variables that has to be assessed when measuring disaster risk. The second is Vulnerability while the third, Capacity, will be discussed in the next session.
- 2. Ask participants what they understand by the word "vulnerability" and list down their responses on a flip chart paper. Take as many responses as possible for about 10 minutes.
- 3. Summarize their responses and explain the following:

Vulnerability is the degree of exposure of elements (people or things) at risk to the hazard. People's lives and health are usually directly at risk from the destructive effects of the hazard. Their livelihood may also be at risk because of the destruction of assets they depend on, e.g. buildings, crops, livestock or equipment.

#### Activity 2. Input on Vulnerability (30 minutes)

- 1. Ask the participants: Given the initial discussion on vulnerability, what are the factors that affect vulnerability? Point out the differences and similarities in their responses. Explain that Vulnerability is a complex concept and people often get confused and misuse the term a lot.
- 2. Draw a rock rolling down the slope of a hill and a person standing at the bottom. Explain that because of the falling rock, the man is an element at risk. He is vulnerable because he is on the path of the rock (location), thus exposed to the falling rock (hazard). However, if he decides to move far away (capacity) from the rock's path (location), he will no longer be vulnerable.







4. Ask people to compare the degree of vulnerability of the three elements in the above picture.

### Activity 3. Group work on Vulnerability assessment (1 hour, 15 minutes)

- 1. Ask participants to refer to suggested list of PLA tools below for data collection in vulnerability assessment. Take time for each of the groups to understand what data could be collected with each of the tools.
- 2. Ask them to suggest more tools if any.
- 3. Distribute the Vulnerability Assessment Exercise Form and explain the various fields in the form. Allow for questions to clarify any confusion.
- 4. Ask participants to use the output of the Hazard assessment exercise in the previous session to assess the vulnerability of the element at risk. Allot 30 minutes for the group work, after which they will report back to the plenary, using flip chart papers.

Unsafe Location		Unsafe Conditions	
Risk	Hazard x Vulnerability Capacity	Risk = Hazard x Vulnerability	
Degree of exposure is measured in relation to the location of the element at risk and the force of the hazard		Capacity determines the extent of vulnerability	
Capacity differs from location			

- 5. Let the Responsible teams facilitate the plenary reporting and discussions. The facilitator may now focus on noting the key points presented by each group.
- 6. Wrap up the activity.

Sub 1.2



# Synthesis (10 minutes)

There are two ways of viewing Vulnerability:

Vulnerability is hazard-specific.

This course adopts the concept of unsafe location in defining vulnerability and allows capacity to be measured separately.

# **Suggested readings**

- Anderson, M.B. 1995. Vulnerability to Disaster and Sustainable Development: A General Framework for Assessing Vulnerability in Clarke Munasinghe, Disaster Prevention for Sustainable Development, World Bank
- Blaikie, P. et al. 1994. Disaster Pressure and Release Model in At Risk: Natural Hazards, People's Vulnerability and Disasters. Routledge London
- Davis, I and Wall, M (eds.). 1992. Christian Perspectives on Disaster Management: A Training Manual. Interchurch Relief and Development Alliance, London



#### **Attachment 1. Reading Material**



2 Sub 1.2

# **Vulnerability Assessment<sup>1</sup>**

Vulnerability is a complex term and can be defined in several ways. Many end up more confused after reading the numerous materials about it. This handout seeks to provide clarity and presents two ways of viewing vulnerability. It also defines Vulnerability assessment after laying down the assumptions on vulnerability.

# 1. Vulnerability as the conditions of the element at risk

Vulnerability here is defined is "a set of prevailing or consequential conditions, which adversely affect the community's ability to prevent, mitigate, prepare for or respond to hazard events" (Anderson and Woodrow, 1989).

The International Strategy for Disaster Reduction (ISDR), which uses this definition, states that these conditions are determined by physical, social, economic and environmental factors or process, which increase the susceptibility of a community to the impact of a hazard.

The above definition can be represented by the following mathematical formulas:

- Vulnerability = unsafe conditions (which could be physical, economic, social, behavioral and environmental)
- Degree of Vulnerability = ideal safe conditions (minus) existing unsafe conditions

The figure below demonstrates this assumption:



<sup>&</sup>lt;sup>1</sup> Developed by Rutico Biñas, Global Advisor for DRA, 2007



The gaps between the ideal and unsafe condition of the element at risk determine the degree of exposure to the hazard's impact – or what is considered under this paradigm as the degree of vulnerability. This means the rich and the poor, although living in the same location, have different degrees of vulnerability because they have different socio-economic and political status.

In measuring disaster risk based on the above assumption, the mathematical presentation is:

Disaster Risk = Hazard x Vulnerability

Here, Capacity is subsumed by Vulnerability.

With the assumption that vulnerability is the condition of the element at risk, categorizing or grouping vulnerabilities soon came about. Andrew Maskarey grouped vulnerabilities into the following categories:

Categories	Example
Physical Vulnerability	communities in hazard prone locations (in flood plain or a coastal location exposed to cyclones)
Technical Vulnerability	structures and infrastructures (houses, roads, bridges, irrigation canals) unable to withstand and resist hazard events
Economic Vulnerability	insufficient assets and reserves to withstand loss; lack of economic diversification
Environmental Vulnerability	lack of biodiversity; incapacity of ecosystem to resist and recover
Social Vulnerability	family size, existence of community organizations and social support mechanisms; age structure of community; gender differences; racial, ethnic, religious discrimination
Political Vulnerability	level of participation in decision-making process, existence of authoritarianism and corruption, political violence, absence of justice and conflict resolution mechanisms systems of beliefs regarding hazards, vulnerabilities and disasters
Cultural Vulnerability	lack of public services, planning, emergency preparedness and response
Institutional Vulnerability	

On the other hand, Anderson and Woodrow (1989) grouped them into three broad interrelated categories: physical/material, social/organizational and motivational\attitudinal. Below are some examples of vulnerabilities based on this grouping:

Categories	Example
Physical\material vulnerability	<ul> <li>risky and insecure sources of livelihood</li> <li>lack of access and control over means of production (land, farm inputs, animals, capital)</li> <li>occurrence of acute or chronic food shortage</li> <li>lack of basic services: education, health, safe drinking water, shelter, sanitation, roads, electricity, communication</li> <li>high mortality rates, malnutrition, occurrence of diseases</li> </ul>

Categories	Example
Social\ organizational vulnerability	<ul> <li>weak family/kinship structures</li> <li>lack of leadership, initiative, organizational structures to solve problems or conflicts</li> <li>ineffective decision-making, people/groups are left out</li> <li>unequal participation in community affairs</li> <li>rumors, divisions, conflicts: ethnic, class, religion, caste, ideology</li> </ul>
Motivational\ attitudinal vulnerability	<ul> <li>negative attitude towards change</li> <li>passivity, fatalism, hopelessness, dependence</li> <li>lack of unity, cooperation, solidarity</li> <li>ignorance about hazards and consequences</li> <li>dependence on external support/dole-out mentality</li> </ul>

# 2. Vulnerability as the unsafe location of the element at risk

Vulnerability based on unsafe location refers to the "degree to which an area, people, physical structures or economic assets are exposed to loss, injury or damage caused by the impact of a hazard." (Disaster Management: A Disaster Manager's Handbook, Chapter 2 and Appendix A. Disaster Mitigation in Asia and the Pacific, p 30-40.)

This definition asserts vulnerability as equivalent to location and can be represented in this mathematical formula:

- Vulnerability = the location of element at risk vis a vis the hazard (considering other factors like slopes)
- Degree of Vulnerability = Location of the element at risk

Distance and Time

The figure below demonstrates this assumption:



# 2 Sub 1.2





The location of the element at risk (the rich and poor houses) determines the degree of exposures to hazard or the degree of vulnerability. This shows that whether rich or poor, all persons living in the same location have equal degrees of vulnerability to the impact of the hazard. Under this assumption, the socio-economic status has no bearing on the degree of vulnerability. Thus, vulnerability refers mainly to the location of element at risk and this becomes the main determinant in the degree of exposure to the hazard's impact.

In measuring disaster risk based on the above assumption, the mathematical representation is:

Disaster Risk

Hazard X vulnerability Capacity

Here, capacity is recognized as a separate variable and subsumed neither by hazard nor vulnerability. Capacities can be categorized under the following: Prevention, Mitigation, Survivability and Readiness.

The major strength of this view is that it allows Vulnerability to be determined by the most constant element disaster risk – the location of the element at risk in relation to the hazard. At the same time, it also gives weight to the economic, social and cultural conditions which are viewed not merely as negative factors that increase vulnerability but as elements that increase or decrease the capacity to cope with the hazard's impact. (Note: A more detailed discussion of capacity will be provided in the next session.)

It must also be stressed that vulnerability under this assumption is hazard specific. Thus, calculating the degree of vulnerability should always be made in relation to the hazard.

Meanwhile, community vulnerability assessment is defined as the process of determining the susceptibility to various hazards of the elements at risk in the community.

The differences between the two perspectives on vulnerability and their implications are summarized in the table below:

1. DR = H x V	Salient Features	Implications		
	<ul> <li>Capacity is subsumed by vulnerability</li> </ul>	<ul> <li>Putting value on capacity becomes difficult because it is already subsumed under vulnerability</li> </ul>		
	<ul> <li>The difference between ideal capacity and existing capacity is the degree of vulnerability</li> </ul>	<ul> <li>Categorization of vulnerability and capacity often have the same heading which causes confusion</li> </ul>		
	<ul> <li>Common mistake: hazard is not factored in as a point of reference in calculating the degree of vulnerability</li> </ul>	<ul> <li>Often, the list of vulnerabilities and capacities are not analyzed based on degree of vulnerability to a hazard.</li> </ul>		
2. DR = $\frac{H \times V}{C}$	<ul> <li>Capacity is calculated separate from vulnerability</li> </ul>	<ul> <li>Putting value to capacity is easier and more directed to the degree of vulnerability and nature of a hazard</li> </ul>		

The interaction of various components of capacity - social, economic, political, geophysical, and technological elements are factored in as a unit of analysis in relation to hazard and vulnerability	Categorizing the capacities that address the degree of vulnerability and hazard is simple and straightforward. For example, capacities for addressing vulnerability can be grouped under "survivability of individuals" in the community. The readiness of the community systems and structures that helps individual to survive during hazard events can be grouped under prevention and mitigation.
The degree of vulnerability is measured based on the proximity of the element at risk to a hazard.	<ul> <li>The different elements at risk in a community may have varying degrees of vulnerability depending on their location in relation to a hazard</li> </ul>

Take note that the second view allows a more systematic and quantifiable measurement of the degree of vulnerability while still taking into account the social, economic, political, geophysical and technological conditions under capacities which are considered as one unit of analysis.

Capacities here are analyzed as the interaction of the resources and access to these resources by the people at risk as well as the over-arching systems and structures of a society – all these decrease or increase the capacity of the people at risk to confront the degree of vulnerability and behavior of a hazard.



# Sequencing of tools for Vulnerability assessment

Just like in hazard assessmenst, the vulnerability assessment that follows also needs to be done systematically. The steps are:

- 1. Identification of the elements at risk in relation to hazard. It is important to identify both human and non-human elements at risk.
- 2. For the human elements, identify the various categories of populations at risk and establish their levels of vulnerability.
- 3. Establish the main causes of vulnerability for different categories and identify the major causes for DRR focus.



# Attachment 2. Handout



# **Vulnerability Assessment Form**

Hazard profile	Elements at risk		Location of element at risk vis-à-vis the hazard			Why the elements
			<u>&lt; X</u>	>x <u>&lt;</u> z	> Z	at risk are in that
	Human Elements		High vul.	Med. vul.	Low vul.	location
	By gender					
	By age					
	Special conditions					
	Non-Human Elements					
	Productive assets					
	Critical					
	Community Organizations and systems					

# Note to facilitator

- X, Y, and Z mark the distance of the location of the element at risk from the epicenter of the hazard. During the actual assessment with the target community, it will be replaced by actual measures like meters, kilometers, acres, and hectares.
- < greater than or equal to; < greater than; > less than or equal to; and > less than to


### Flood Hazard in Jari Watershed, Amhara Region, Ethiopia



Hazard profile	Elements at risk	Location of element at risk vis-à-vis the hazard		
		High vul.	Med. vul.	Low vul.
		<500 m	500-700 m	>700 m
Flood is a serious hazard in	Children <5 years	232	97	58
inhabitants two times a year.	Children 5-18 yrs	464	193	116
It affects the individual by destroying planted crops.	Youth girls	174	73	44
washing away the soils from their farm land and grazing	Youth boys	174	73	44
lands. Moreover, it affects	Adult Women	702	702	292
worsening food insecurity,	Adult men	630	262	157
interrupting social support system, displacing people.	Elders	116	48	29
losing flood control and	Pregnant and Lactating	56	23	14
irrigation infrastructure. It is caused by deforestation, population pressure, land degradation and the torrential rainfall. The forces for the flood are concentration of runoff, debris, and silt. Though it is difficult to mention the correct signs and signals of flood, the possible signs mentioned are thunder and lightning of heavy cloud, high wind from West to East and continuous and heavy rainfall around Hayk town, Kesem Belo, Wahilo and Kete. Its speed of onset is high and its impact starts 20- 30 minutes after the signs appear. It occurs in Belg season from February to April	PLWHA	23	10	6
	Non-human Elements			
	Farm land (Msq. )	398	512	226
	Grazing land (Msq.)	12	5	3
	Cattle	1811	755	453
	Camel	72	30	18
	Sheep	272	114	68
	Goat	734	306	184
	Donkey	114	48	29
	Schools	1	1	
	Health Post		1	
	Road (km)	12		
and in Mener season from July to August.	Potable water	5	1	
	Water harvesting Ponds	7	2	

### Summary of the vulnerability assessment

Vulnerability assessment of the community shows that 2,571 (or 60%) of the people living within 500 meter from the center of the flood discharge canal are highly vulnerable to flood hazard. Non-human elements – including 398 hectares of farmland, 12 hectares of grazing land, 1,811 cattle, 72 camels, 272 sheeps, 734 goats; and critical facilities such as a school, 12 km roads, five potable water schemes and five ponds found within the 500 meters – are all highly vulnerable to flood hazard. Nearly 25% of the people and critical facilities found between 500 and 700 meters have medium-level vulnerability compared to people living out of this range.

### CAPACITY ASSESSMENT



### Duration: 1 hour 30 minutes

### Description

This session explains how capacities are hazard- and vulnerability-specific. It stresses that capacities are found both at the level of the individual as well as the community and how they determine the degree of disaster risk.

### **Learning Objectives**

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

- 1. Distinguish the various disaster resilience capacities.
- 2. Carry out capacity assessment using suggested PLA tools compiled within the given tool in the manual.



### Learning aids and materials

- 1 flip chart stand
- 1 roll of flip chart paper
- Markers of assorted colors
- Attachment 1. Handout Capacity Assessment
- Attachment 2. Handout Suggested PLA tools for Capacity Assessment
- Attachment 3. Handout Capacity Assessment Exercise Form

### Procedure

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- 1. Explain that the third step in Disaster Risk Assessment is to identify the capacities needed to prevent or mitigate the hazard and to reduce or eliminate vulnerability. (Attachment 1 handout)
- 2. Ask participants to refer to the suggested PLA tools below and discuss how to utilize those. Ask them to come up with additional ones.
- 3. Distribute to the participants the Capacity Assessment Exercise forms and explain the different fields (Attachment 1).
- 4. Ask participants to discuss the pictures below and use the concept to fill the capacity assessment tool.

Existing Capacity	<b>Required capacity</b>	Gaps
More people than trees with only 2% remaining forest	More trees than people, with at least 40% forest	38% forest needed

5. Ask the participants to go back to their respective groups to complete the forms and emphasize that they should focus first on the existing capacities of the community assigned to their groups. Give the groups 30 minutes to finish the group work and then ask each group to report before the plenary.

6. To help deepen understanding, provide the participants with case stories that depict capacities of community for survivability. The following are some examples:



### Example 1: Community\Individual Survivability from Abductions in South Sudan<sup>1</sup>

The abduction of women and children in south Sudan in Africa is rampant during the seasonal migrations of the nomadic Arab tribes living in the north of Sudan. These abductions were traditionally resolved through the tribal structure. Blood compensation would be paid for people killed, and abducted children would be returned, and so on. However, during the protracted civil war between the government of Sudan and the Sudan People's Liberation Army/Movement, the government armed the Muraheleen from the Baggara and Meseria tribes, and other militias such as the Popular Defence Forces and the Peace Forces, which terrorized areas in the south. Abductions then began to happen on a large scale.

A report by Reuters posted on January 10, 2001 showed the community's amazing capacity to cope with this tragedy. The spirits of many of the women and children (aged five years and above), were never broken although they knew that they were doomed to sex slavery or hard labor in their masters' farms. They hoped, however, that they would return home someday.

Following international pressures on the Sudanese government to abolish abductions and slavery, UNICEF and Save the Children facilitated the process of identification, tracing and the return of abducted women and children back to their original families in the south.

Hundreds of reunions were witnessed. Many of these formerly abducted women and children were amazingly able to remember the names of their clans, sub-clans and grandparents to the fifth generation, despite having been abducted while below 10 years of age. Not surprisingly, however, some could not remember the faces of their relatives after decades of separation. How was it possible for these children to survive and have a chance of reuniting with their families?

In the Dinka culture, when adults go out to farm, the elders stay home to take care of the young ones. One of the things they do is teach children about their lineage, starting with the names of their father and mother and then the names of their maternal and paternal grandparents to the fifth generation. This was recited everyday and until the children have full mastery of their lineage by the age of five years. Thus, if a Dinka child is abducted and kept away from their families for decades, the children would be able to trace their roots back to their exact families. <sup>&</sup>lt;sup>1</sup> http://southsudanfriends.org/issues/Jan01Abductions.html By: Patience Alidri, Deputy Director, IIRR – Africa



### Example 2: Busa Gonofa: A Maudable mutual help system

Almost 600 kilometers from Addis Ababa, Ethiopia, an agro-pastoralist community near Yabelo, Woreda, Borana Zone, a place repeatedly struck by harsh droughts, has a story to tell.

During disasters, the Council of Elders convenes to immediately respond to the needs of the community members. The affected community members seek support from within their clan groups through a social security network. Called Busa Gonofa, this traditional practice is a process wherein respected elders immediately gather and respond to the individual members who need help to once again become normal functioning members of the community. The elders conduct background checks to assess the member seeking support. If the suffering member has shown positive behavior in the past, then most likely he/she will be deemed deserving to receive support from the clan. He/she will not be asked to pay back whatever support is given him/her. However, if the member regains the capacity, he/she is expected to provide support to the needy members of the community. In this community, the members usually contribute cattle. If 20 heads of cattle are lost, the Busa Ganofa system will replace 19. This practice is also observed in some Oromo groups such as Gabra.

By: Moges Bekele

### **Suggested readings**

- Anderson, M.B. & Woodrow, P.J. 1989. A Framework for Analyzing Capacities and Vulnerabilities in Rising from the Ashes; Development Strategies in Times of Disasters. Westview Press.
- Blaikie, P. et al. 1994, Access to Resources and Coping in Adversity in At Risk: Natural Hazards, People's Vulnerability and Disasters, Routledge London.
- Kotze, A. & A. Holloway, What resources are available for reducing risk? In Reducing Risk: Participatory Learning Activities for Disaster Mitigation. Department for International Development (DFID).



### Attachment 1. Handout

### Capacity Assessment<sup>1</sup>



International Strategy for Disaster Reduction (ISDR) refers to capacities as a combination of all the strength and resources available within a community, society or organization that can help reduce the level of risks or the effects of a disaster. Capacity may include physical, social, institutional or economic means as well as skilled personal or collective attributes such as leadership and management. Similar definition of capacities are strengths and resources, which exist or are present in individuals, households and the community – enabling them to cope with, withstand, prepare for, prevent, mitigate, or quickly recover from a disaster.

### Another way of looking at Capacities and how they differ from capabilities:

Development NGOs involved in disaster-related work have different ways of categorizing capacities. Many treat capacity as synonymous with resources. Anderson and Woodrow (1989) have three categories: social, physical and motivational. The Department of International Development (DFID) considers it under sustainable livelihood framework as human, social, natural, financial and physical capitals; in economic terms, it is land, labor and capital. Dr. Y. C. James Yen, founder of the International Institute of Rural Reconstruction (IIRR) called it the "3 T's" which stands for Time, Talent and Treasures.

Capacities in the context of disaster risk reduction are analyzed as the interaction of forces of resources and the access to these resources by the different risk groups and the overarching systems and structures in society that decrease or increase capacities to face hazards. Because the behavior of a hazard and degree of vulnerability determine the capacity needed to reduce disaster risk, capacities should be analyzed in relation to the hazard and vulnerability.

During capacity assessment it is advisable to refer to the resiliency-building framework. While considering the framework it is possible to see existing and required capacities and the capacity gaps of individuals, communities, and the overall ecosystem for prevention, mitigation, survivability and community readiness. (Refer to the session on resiliency building within the CMDRR approach.)

Categories Refers to:				
Capacities addressing hazard				
Prevention and Mitigation (activities that deal squarely with the hazard)	<b>Mitigation</b> covers measures that minimize the effects of hazards and thus lessen the magnitude of a disaster. Mitigation measures can range from physical measures such as flood defenses or safe building design, to legislation and non-structural measures such as training, organizing disaster volunteers, public awareness, food security programs and advocacy on development issues.			
	<b>Prevention</b> covers activities designed to impede the occurrence of a disaster event and\ or prevent such an occurrence from having harmful effects on communities and facilities. Examples are safety standards for industries, flood control measures			

### Within the CMDRR approach, capacities are categorized as follows:

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<sup>&</sup>lt;sup>1</sup> Developed by Rustico Biñas Global Advisor for DRR.

ategories Refers to:		
Capacities addressing hazard		
	and land use regulations. Poverty alleviation and assets redistribution schemes such as land reform, provision of basic needs and services such as preventive health care, education are some non- structural measures.	
Capaciti	es addressing vulnerabilities	
Survivability (activities that deal with individual survivability and bouncing back)	To manage to stay alive or continue to exist, despite the difficult situations	
Readiness (activities that deal with community systems and structures that helps individual elements at risk survive and bounce back)	Group\community organization functioning as a system prepared for any hazard that is going to happen	

### Building on what people have

Each individual, community, society or nation has latent capacities and these have to be tapped in order to increase the resiliency of the individual and the community. Efforts should aim to develop coping capacities of the individuals and the communities, and the organizations to develop resilience from any type of hazard.

Community Capacity Assessment identifies the strengths and resources present among individuals, households and the community to cope with, withstand, prevent, prepare for, mitigate or quickly recover from a disaster. Coping means managing resources in times of adversity. Communities over time have been able to mobilize resources to cushion themselves against adverse effects of particular hazards. In the process of facilitating the capacity assessment, it is important for the community to reflect on their socio/resource map and be able to identify the location of particular resources that can be accessed to cope with the hazard.

### THE CIELO ProTEC: A Framework for Community Readiness

A disaster is viewed as a "social construct" which means that it is a result of individual and community systems and structures. In the DRR formula, risk is a function of not only the hazard event but also of vulnerability and capacity. The last two variables are in the control of people and societies. Therefore, to stop or reduce the possibility of a disaster happening, people and communities have to possess the capacities for them to absorb, transform and bounce back from the hazard event.

In CMDRR looks at 4 categories of capacities and these are hazard prevention and mitigation, individual survivability and community readiness. In this paper, a framework to understand in detail what do we mean by the capacity related to community readiness. This framework is the "THE CIELO ProTEC System".

In the THE CIELO ProTEC framework for the capacity for community readiness, capacities are further defined in terms of (1) systems and structures and (2) tools, equipment and accessories (TEA). Systems and structures refer to the ways and means that the community copes from a hazard they are exposed to. On the other hand, tools, equipment and accessories are the physical implements and materials that the community needs to better cope with the hazard event.

Below are the important systems and structures and TEA that the community needs to analyze during the conduct of the capacity assessment:

	Component	Systems and Structures	T.E.A
		Examples	Examples
Т	Transportation	Means of transportation available in the community	Vehicle type (land, water, air)
н	Health and medical services	Systems on endorsements, response, treatment, medicines	Spine board, ambulance, first aid kit, etc
E	Early warning	Risk Knowledgement, Monitoring and Warning Services, Dissemination and Communication and Response Capability	Early Warning Devices-according to specific hazard events (geological, hydromet, industrial,etc) such as rain gauges and tide monitor
С	Communication	Means of communication among members of the community and outside the community	Communication Devices (radios, base, etc)
1	Internal response	Systems for search and rescue, assisting the most at risk populations	Response related tools, equipments and accessories such as life boats, ropes, etc
E	Evacuation	Evacuation centers, procedures in evacuation, camp management	Physical structure for evacuation, tents, sleeping, cooking and eating materials
L	Livelihoods	Community practices to revive damaged livelihoods, systems to protect, enhance and diversify livelihoods	Flood proof livelihood centers, equipment for alternative livelihoods
0	Organizational development and governance	Policies, Standard Operating Procedures, Manuals	Office equipment, materials and recording materials
Pro	Provisions of food, water and security	Systems how the community secure food and water during hazard events	Stockpile of food, emergency WASH facilities
Т	Technology	Indigenous technologies to deal with hazards (e.g. floating houses)	Farmers field schools to develop technologies
E	Ecosystems management and restoration	Community actions and programs that manage the ecosystem and restore it	Tree seedlings, nurseries, water management equipment
С	Coordination and incident command system	Community leadership structure before and during the hazard events, system in managing external assistance in case of disasters	Physical center for coordination and command system



### Attachment 2. Handout - Suggested PLA tools for Capacity Assessment



### **Sequencing of tools for Capacity Assessment**

- 1. Identify the existing capacities, the required capacities and the gap between the existing and required capacities that help the community to address the hazard before it strikes (capacities that prevent the hazard, capacities that mitigate or reduce impact of hazard)
- 2. Identify existing capacities, the required capacities and the gap between the existing and the required capacities that help the community address vulnerability before and after the hazard strikes (capacities that enhance individual survivability, capacities that enhance community readiness)
- 3. Summarize the assessment result in the capacity assessment form.

### Note to facilitator

Suggested PLA tools for capacity assessment

- Social and resources map
- Wealth ranking
- Venn diagram
- Experience stories
- Individual and community capacity assessment matrix



Attachment 3. Handout - Capacity Assessment Form



### Prevention

Existing	Required	Gaps

### Mitigation

Existing	Required	Gaps

Note: When carrying out survivability assessment all elements at risk assessed for level of vulnerability during the vulnerability assessment should be considered here.

### Highly Vulnerable: Survivability before hazard

Element at Risk	Existing	Required	Gaps
Human Element			
Non-Human Element			

### Medium Vulnerable: Survivability during hazard

Element at Risk	Existing	Required	Gaps
Human Element			
Non-Human Element			

### Low Vulnerable: Survivability before Hazard

Element at Risk	Existing	Required	Gaps
Human Element			
Non-Human Element			

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### Low Vulnerable: Survivability during Hazard

Element at Risk	Existing	Required	Gaps
Human Element			
Non-Human Element			

### Community Readiness: Before the Hazard

Existing	Required	Gaps
Institutions, systems		
(THE CIELO ProTEC)		
<ul> <li>Transportation</li> </ul>		
Health and medical services		
Early warning		
Communication		
<ul> <li>Internal response</li> </ul>		
Evacuation		
Livelihoods		
<ul> <li>Organizational development and</li> </ul>		
governance		
Provisions of food, water and		
security		
Technology		
Ecosystems management and restoration		
<ul> <li>Coordination and incident command</li> </ul>		
system		
595(0111		

### Community Readiness: During the Hazard

Existing	Required	Gaps
Institutions, systems		
(THE CIELO ProTEC)		
<ul> <li>Transportation</li> </ul>		
Health and medical services		
Early warning		
Internal response		
<ul> <li>Livelinouus</li> <li>Organizational development and</li> </ul>		
<ul> <li>Provisions of food water and</li> </ul>		
security		
Technology		
Ecosystems management and		
restoration		
<ul> <li>Coordination and incident</li> </ul>		
command system		

Note: Capacity assessment concludes with gaps from prevention, mitigation, individual survivability and community readiness. This will be the starting point for planning on how to address the gaps.

### DISASTER RISK ANALYSIS



Duration: 1 hour 30 minutes

### Description

This session focuses on how to consolidate the results of hazard, vulnerability and capacity assessments and formulate conclusions based on them. It provides the participants the framework to analyze their assessments and prepare for the next steps which are strategy formulation and disaster risk reduction measures.

### **Learning Objectives**

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

- 1. Consolidate hazard, vulnerability, capacity assessments and determine the degree of risk.
- 2. Draw conclusions and recommendations for disaster risk reduction measures.
- 3. Use Participatory Learning and Action tools in Participatory Disaster Risk Assessment.



### Learning aids and materials

- 1 flip chart stand
- 1 roll of flip chart paper
- markers of assorted colors
- Attachment 1. Handout Disaster Risk Assessment Exercise Form

### Procedure

### Activity 1. Input on Disaster Risk Assessment (15 minutes)

- 1. Explain to the participants that community disaster risk analysis consists of four steps:
  - a. **Hazard Assessment** Identifies the most likely natural or human-made hazard or threat to the community, and seeks to understand its nature and behavior.
  - b. **Vulnerability Assessment** Identifies what elements are at risk because of the exposure of their location to the hazard.
  - c. **Capacity Assessment** Identifies the state of individuals and the community's capacity. This refers to to knowledge, attitude, skills and access to resources for individuals to survive and bounce back and the capacity of the community's systems and structures to absorb, manage and bounce back to continue to help individuals to survive and function normally.
  - d. **Disaster Risk Analysis** The process of consolidating the findings of hazard, vulnerability and capacity assessments and draw conclusions and recommendations for disaster risk-reduction.



- 2. Explain to the participants that after having done the hazard, vulnerability and capacity assessments for their community, the next step is to synthesize the analysis of the three variables and draw conclusions regarding the degree of disaster risk high, medium or low.
- 3. Wrap up the activity by stressing the following points:

The Participatory Disaster Risk Assessment involves the following:

- Community profile (introductory\background part)
- Hazard, vulnerability and capacity assessment (your findings)
- Degree (high\medium\low) of disaster risk (your conclusions)
- Capacities needed to reduce the disaster risk (your recommendation)

### Activity 2. Group work (1 hour 5 minutes)

- 1. Ask participants to go back to their respective groups and undertake a risk assessment of their respective communities, with the following instruction:
  - a. Analyze the degree of disaster risk based on the hazard, vulnerability and capacity assessments the groups have already conducted.
  - b. Determine the capacities needed to prevent or mitigate the hazard as well as to reduce or eliminate the vulnerability of the community assigned to each group.
- 2. Let the training responsible teams facilitate the plenary feedback session. The facilitator must take note of each group's understanding of the exercise and provide additional explanations if needed.
- 3. Wrap up the activity.

### Synthesis (10 minutes)

- Disaster risk assessment is the analysis of the findings of hazard, vulnerability and capacity assessment and drawing conclusion on the degree of disaster risk. It serves as a basis for recommending appropriate disaster risk reduction measures.
- Survivability is to manage to stay alive or continue to exist, especially in hazard event.
- Readiness group/community organization functioning as a system prepared for any hazard that is going to happen.

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### Attachment 1. Handout

### **Disaster Risk Analysis**



This session is all about summarizing of the assessment results of all the three variables and determine the risk level for the various elements at risks identified and assessed for their levels of vulnerability. It is also part of coming up with recommendations based on the risk level and the capacity gaps.

### **Disaster Risk Analysis Form**

Framework for disaster risk analysis:

			Disaste	er risk analy	sis form				
Community profi	le: This inform	ation is obtair	ned during cor	mmunity en	try and socia	ıl mapping.			
Hazard Profile: H	ere the hazard	is described I	based on the l	hazard asse	ssment findi	ngs.			
Elements at risk	Individual Su	ırvivability ca	apacity gaps		Community	Capacity Gaps	De	gree of ri	sk
Human elements (Example)	At the highly vulnerable	At the medium vulnerable	At the low vulnerable	Readiness capacity gaps	Prevention capacity gaps	Mitigation capacity gaps	High	Medium	Low
Male youth									
Female youths and adults									
Non Human elements									
List of Productive assets									
List of critical facilities									
Summary of Find The risk level for If risk level for ar If risk levels are a	<b>ings:</b> different categ yr group is not acceptable the	gories of peop acceptable th community ca	le, their numb en measures ; an agree on re	iers and wh should be ta commendat	ether the leviken to reloce	els of risk are acceptable ate them reduction.			
Recommendation information is ba: What are the mea What are the mea Which organization should be taken?	r: Identify prio sed on the cap asures to addre asures for addr ons are approp	rity elements acity gaps alre iss the hazard essing vulnera riate for imple	at risk and th eady identifie ? These are pr ability? These ementing the	e risk reduc d. evention ar are for indi CMDRR plar	tion measure nd or mitigati vidual surviv n? What Moni	s (including the appropriat on measures? ability and community rea itoring, Evaluation and Lea	te orgal adiness arning r	nizations) ? neasures	. This

The risk reduction measures are then incorporated into community development plan. Organizations working with the community could incorporate the measures into its ongoing development projects. The summary of community risk analysis could be used to develop scenarios for contingency plans development.

### PERCEPTIONS IN RISK ASSESSMENT



### Duration: 1 hour 30 minutes

### Description

This session provides an overview of other areas that need to be considered in disaster riskassessment. It highlights how people's perception and biases such as gender, age, and people in special circumstances can influence risk analysis.

Age consideration is important as age sets/groups are recognized in communities for various reasons. It is therefore important to recognize how these age-sets cope/respond to hazards.

Persons in special circumstances are also important to consider. These are persons with physical/mental disability, persons living with HIV/AIDS or other terminal illnesses.

### **Learning Objectives**

At end of the session participants should be able to:

- 1. Explain what "perception" is and how it differs among people in the same community.
- 2. Identify age groups/sets and other categories in their communities and how they respond to hazards.

### Note to facilitator

Gender is mentioned as one of the perceptions. It has already been discussed in Module 2 Session 2.





3. Shorten the gaps of perception among actors (age, gender, persons in special circumstances, etc) through employing participatory learning action tools during community risk assessment.

### Learning aids and materials

- 1 roll of flip chart paper.
- Markers of assorted colors.
- A box containing various objects which feel and sound differently (e.g. stone, leaf, piece of metal, pen and chalk)
- Masking tape
- Attachment 1. Drawing of a frog

### Procedure

### Activity 1. Secret box game on perception (15 minutes)

- 1. Divide the participants into three groups. Bring the box containing different objects to each group with the following instructions:
  - Groups 1 : Shake and listen to what is inside the box and write down what you think is in the box.
  - Groups 2: Shake and feel what is inside the box and write down what you think is in the box.
  - Group 3: Shake, hear, feel and see what is inside the box and write down your findings.
- 2. Ask each group what they think are in the box. List their answers on flip chart paper.
- 3. Open the box and take out the contents for all the participants to see. Point out that the group that used a combination of several senses was able to give the most accurate answer than the others.
- 4. Ask the participants to reflect on the following:
  - The groups that shared the same experience had different answers yet the content was the same. Why?
  - What was the exercise about?

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5. Wrap up the activity by highlighting the following points:

- Perception, simply put, is the way one regards something based on his/her beliefs and experience.
- Perception differs because of differences in background, experience, culture, education, history, gender, age and other similar functions, or a combination of various elements.
- Individuals within a community often have different perceptions of their risk.
- While the community may conclude after analyzing hazards, vulnerability and existing capacities that a disaster risk is high, the external agent might think differently.
- The challenge therefore is to facilitate a shared analytical understanding of disaster risk. This can be achieved through joint assessment using tools such as the participatory learning action.

### Activity 2. Frog-in-the-well exercise on perception (30 minutes)

1. Referring to the illustration in Attachment 1, draw on a flip chart a deep well with water inside and some trees or objects around it but at varying distances from the mouth of the well. Draw a tree farther off that a frog placed inside the well cannot see fully unless the frog is brought outside the well. Make sure that the well drawn is wide enough to place the frog-shaped drawing inside.

2. Place the image of the frog first at the bottom of the well and ask the participants which objects outside the well can the frog see. Place the frog at various positions inside the well until it gets to the top while asking the same question (refer again to the illustration).

2 Sub 1.5

3. Wrap up the activity by explaining that people in a community have different views of the world. The CMDRR facilitator seeks to help them gain a wider perspective. The task therefore is to help communities bring out common issues and identify their root causes, e.g. cutting trees upstream would lead to flooding downstream.

### Activity 3. Age group and persons in special circumstances (45 minutes)

- 1. Divide the participants into two groups
- 2. Ask the participants to identify a hazard that has hit their community recently.
- 3. Ask each group to answer the following questions:
  - How were the men and women, boys and girls of different ages in your community affected by the hazard?
  - Do you think the hazard affected the different age groups differently? In what ways?
  - Do different age groups cope/respond to hazard differently? If so, in what way?
  - Why?

Depending on what is appropriate to the participants, the facilitator may use the following matrix to help the participants arrange and analyze their answers:

Age Differentiated Capac	ities Matrix			
Age Categories	Capacities Haz	addressing ard	Capacities Vulnera	addressing abilities
	Prevention	Mitigation	Survivability	Readiness
Findings				

4. Ask each group to share the results of its discussion.

5. Ask them to compare the results of the workshop. If there are differences, ask them why.

6. Summarize the workshop results and wrap up the activity. Highlight the following points:

- People at risk not only have different perceptions but they are also affected differently.
- Even within the same age group or sectors (women or fishermen or pastoralist) there could be different perceptions of risk.
- Thus, it is important to use participatory learning action tools during risk assessment to improve understanding and to shorten these gaps of perception.



### Synthesis (10 minutes)

- Perception of risk in the community is important to enable the community to have common disaster risk-reduction measures in which full community participation is required.
- DRR measures must help build the capacities of both men and women in all aspects of their lives as they are equal partners in CMDRR.
- Different age groups have different needs. DRR measures must be able to respond appropriately to these different groups.
- People with disabilities have unique needs. There is a need for targeted support to these
  groups that must be supported and facilitated during hazards.

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Attachment 1. Drawing of the frog





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### **SUB MODULE 2**

### DEVELOPMENT OF DRR MEASURES

- Translating PDRA Results to Disaster Risk Reduction Measures
- Community Action Planning for CMDRR
- Contingency Planning
- Community-Managed Early Warning System
- Facilitating Community Simulations and Drills for Preparedness
- Guided Field Practicum: Community PDRA and Planning



### TRANSLATING PDRA RESULTS TO DISASTER RISK REDUCTION MEASURES



### Duration: 2 hours

### Description

Through the PDRA, the CMDRR facilitator assists the selected community to identify different capacity gaps in hazard prevention, mitigation, individual survivability and community readiness. The goal of disaster risk reduction is to increase the capacities of communities. This session teaches the training participants how tools can assist communities to formulate their DRR Measures by building upon the capacities assessment.

### **Learning Objectives**

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

- 1. Explain what community DRR Measures are and their importance.
- 2. Explain methods and tools in facilitation that can help the community to determine their community DRR Measures



### Learning aids and materials

- White/blackboard
- Chalk/markers
- Flip chart paper
- Attachment 1. Handout 1 Task Achievement and Process Tool
- Attachment 2. Handout 2 Community DRR Measures Format
- Attachment 3. Notes on Community's Vision and Goals for Community Resilience
- Attachment 4. Handout 4 Case Story: To whom do I give the DRR Measures
- Attachment 5. On the Main Questions to Formulating a DRR Measures

### **Procedure**

### Activity 1. Input on Community Disaster Risk Reduction Measures (20 minutes)

- 1. Using Attachment 1 (Handout on CMDRR Task Achievement Process Flow), help the participants appreciate the role of formulating a community DRR Measures in the whole CMDRR process.
- 2. Wrap up the input by explaining that for the PDRA to become useful in reducing risks, the community needs to develop a DRR Measures that will serve as their long-term plan towards risk reduction.
- 3. Present to the participants the format for recording simple community DRR Measures. Explain carefully each of the elements in the DRR Measures. Emphasize that the plan is really based on the capacity gaps identified during the capacities assessment. Distribute Attachment 2 Handout on Community DRR Measures Format to aid in the discussion.
- 4. Also distribute Attachment 3: Notes on community vision and goals for community resilience.

### Activity 2. Case study and discussion on main concerns in developing a community DRR Measures (40 minutes)

- 1. Distribute copies of the case study (Attachmet 4: Case Story: To whom do I give the DRR measures) to the participants and assign them to read and take notes on discussion questions cited in the case.
- 2. Facilitate sharing of participants' notes on the discussion questions and wrap up the discussion with the following points:

Main strategic questions to formulating a DRR Measures

- 1. What is the organizational form that will serve as the anchor of CMDRR Measures implementation? Is it formal, informal, organized already or needs to be organized?
- 2. What are the various DRR measures and their expected changes that need to be accomplished to reduce disaster risks?
- 3. What are the selected ways of doing PMEL?
- 3. Further discussions to help the facilitator/trainer are provided in Reading Material 1: On the Main Questions to Formulating a DRR Measures



### Activity 3. Demonstration of Useful Tools to Formulate the Community DRR Measures (50 minutes)

- Divide the participants into three small groups. Assign each group to one of the following handouts:
   Group A: Handout on Vision Mapping
   Group B: Handout on Storytelling of Peoples Aspirations
   Group C: Handout on the 'Workshop Method"
- 2. Let each group study the various handouts assigned to them and ask them to discuss how these approaches can be useful in formulating the community DRR Measures. Instruct each group to make a brief report on the Tools.
- 3. After all the groups have reported, explain to the participants the following points:
  - a. It is important to ensure that all the elements at risks are well represented such as the participation of women, children, PWDs and the elderly. It will be even great to have separate sessions for them in the community.
  - b. DRR measures are a combination of technical and participatory process; it may not be for everybody to participate.
  - c. It will be helpful to make use of various tools and methods to ensure participation for instance vision mapping and storytelling might be more useful if the community participants have low literacy levels (not able to express in writing).
  - d. Use of the tools will gather the ideas and sentiments of the community which later on will be presented in the suggested format of a community DRR Measures.

### Synthesis (10 minutes)

Close the session by discussing the following synthesis points

- 1. The community DRR Measures translates the outcome of the PDRA into disaster risk reduction targets for the community.
- 2. These DRR Measures serves as a guide in preparing a realistic community DRR Action plan.
- 3. The importance of using various participatory tools to capture the vision, goals and milestones set by the community in reducing their risks.

### **Suggested reading**

- USAID-GOLD, Technology of Participation from USAID-GOLD Project, Philippines
- Anderson , M. & Peter J.W. (1989) "Rising form the Ashes: development strategies In times of Disaster "Westview Press, Inc. and UNESCO. Boulder, Colorado.
- Saha, S. K. (1998) Unpublished "Report of the training workshop on PRA on disaster preparedness for the staff of German Red Cross, Supported CBDPP program in Bangaldesh
- Saha, S. & Eppler, P. (2000). "Village action planning for Community Management Promotion: A facilitator's Manual". Dhaka: DASCOH publication.





- Gajanayake S and Gajanayake J. 1993. Community Empowerment: A Participatory Training Manual on Community Project Development. Office of International Training and Consultation, Northern Illinois University, USA
- Srinivasan Lyra. 1993. Tools for Community Participation: A Manual for Training Trainers in Participatory Technique. PROWWESS/UNDP-World Bank Water and Sanitation Programme, Washington



### **Task Achievement and CMDRR Process Flow**

Stages	Steps	Tools	Specific Output
	Hazard assessment	Hazard assessment form and PRA tools	<ul> <li>Hazard selected</li> <li>Hazard profile: Characterization of selected hazard</li> </ul>
	Vulnerability assessment	Vulnerability assessment form and PRA tools	<ul> <li>Element/s at risk identified and their location described in relation to hazard and their reason/s for being in that location</li> <li>Degree of vulnerability determined</li> </ul>
Participatory Disaster Risk Assessment (PDRA)	Capacity assessment	Capacity assessment form and PRA tools	<ul> <li>Existing capacities and capacity gaps identified vis- à-vis hazard prevention and mitigation measures and, at the level of individual (survivability) and community (readiness) of the element/s at risk</li> </ul>
	Disaster risk analysis	Disaster risk analysis form and other consolidating tools	<ul> <li>An over-all assessment based on the consolidated results of the hazard, vulnerability and capacity assessments, to wit:</li> <li>Degree of risk determined</li> <li>Number of Priority element/s at risk and risk reduction measures identified</li> <li>Appropriate organization determined</li> </ul>
Development of community DRR Measures	Community DRR planning	DRR Measures Format and Tools for Participatory Planning	<ul> <li>The community DRR Measures determine the following:</li> <li>Organization development</li> <li>Risk reduction for prevention, mitigation, individual survivability, and community readiness</li> <li>Participatory planning monitoring, evaluation and learning (PPMEL)</li> </ul>

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Stages	Steps	Tools	Specific Output
Development of community DRR Measures	Strategy- specific needs identification, prioritizing, and action planning	Strategy-specific needs identification form	<ul> <li>Needs requirements per strategy identified and prioritized under each category of organizational development, hazard prevention, mitigation, individual survivability, and community readiness</li> </ul>
		Strategy-specific needs Prioritizing form	<ul> <li>Needs requirements per strategy prioritized under each category of organizational development, hazard prevention, mitigation, individual survivability, and community readiness</li> </ul>
Community DRR Action Planning		Strategy-specific needs Action planning form	<ul> <li>Community action plan developed per strategy under each category of organizational, hazard prevention, mitigation, individual survivability, and community readiness and PPMEL</li> </ul>
		Contingency planning form	<ul> <li>Community contingency action plan with PPMEL</li> </ul>
Organized community action- reflection in implementing their plan	(As indicated in the community action plan)	(As indicated in the community action plan)	<ul> <li>Operationalized community DRR action plan:</li> <li>Organizational development</li> <li>Hazard prevention, mitigation, individual survivability, and community readiness</li> <li>Contingency</li> <li>PPMEL</li> </ul>

## **Community DRR Measures (format)**

# The disaster risk reduction measures of community XYZ

A. Community's Vision of Resilience: B. Resilience Goals: C. Hazard Profile:

Components	Time Element	Capacity Gaps	Objectives	<b>DRR</b> Measures	Expected Chan	ges or Results
Hazard Prevention						
Hazard Mitigation						
Individual Survivability:						
Of adult men	During					
	Before					
Of adult women	During					
	Before					
Of the elderly and PWD	During					
	Before					
Of children	During					
	Before					
<b>Community Readiness:</b>	During					
Of the transport system	Before					
	During					





### Attachment 2. Handout



Components	<b>Time Element</b>	Capacity Gaps	Objectives	DRR Measures	Expected (	changes or Results
Of health system	Before					
	During					
Of evacuation system	Before					
	During					
Of communication system	Before					
	During					
Of internal response system	Before					
	During					
Of early warning system	Before					
	During					
Of livelihood system	Before					
	During					
Organizational Development						
<b>Monitoring and Evaluation</b>						

Sample of Filled-Out Community DRR Measures Community's Vision of Resilience: A resilient and progressive community where people are living in harmony with their environment

## **Resilience Goals:**

- To increase the survivability of most people at risk by building their capacities;
- To implement actions that will address the root causes of disaster risks and incapacities of the community; and
  - To effectively manage the various risk reduction activities in a manner that is transparent and accountable.

### Hazard Profile:

properties at risk. Flooding in village XYZ happens every year during the rainy months of July and August. Flood waters usually come very fast and are between risk-assessment conducted, the village identified flooding as the hazard that has a high probability of happening and worsening and putting more people and four to six feet in depth. The flood water stays in the village for one week after which it begins to subside. Flood usually comes after three hours of heavy rains. The village XYZ is affected by various hazards in the past 10 years. These hazards are drought, flood and armed conflict. According to the participatory disaster People start to prepare when they see the formation of very dark clouds covering the mountains.

	Timo Flomont	and thistory	Obioctivoc		Expect	ted Changes or Resi	lts
		רמשמרונץ עמשא	ODJECHIVES		Output	Outcome	Impact
Hazard Prevention		Canals and rivers are poorly maintained and becoming shallow	Ensuring that canals and rivers are functional in draining flood waters	Canal clean up River rehabilitation River bank stabilization	Canals and rivers are dredged	Canals and rivers are regularly maintained	Flood is prevented
Hazard Mitigation		Unfinished flood dike in the north side of the village	Construction of dike and maintaining it	Construction and maintenance of dikes protecting the villagers	Dike is finished	Dike is properly monitored and maintained	Flood is mitigated



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					Expect	ted Changes or Resu	lts
CONTRACTO		רפףפרונץ נפשא	onjectives		Output	Outcome	Impact
Individual Survivability:							
Of adult men	During	Not able to understand early warning signals	Build capacities of men in understanding warning signals	Capacity building on survivability	Men are able to understand warning signals	Men know how to act accordingly during the hazard	Men survive the flood
	Before	Lack of access to hazard information and risks	Ensure access of hazard information and risks	IEC for the men	Men acquired basic skills to understand warning	Men acquired survival skills	Men become resilient
Of adult women	During	Difficulty to escape flood waters	Ensuring the safety of women	Integration of gender in the contingency plans Simulation of women specific activities in the contingency plans	Women are provided assistance in escaping	Women are able to use survival skills	Women survive the flood
	Before	Few opportunities to go out and learn about disaster preparedness	Building capacities of women	Capacity building for women on disaster preparedness and survivability	Women trained on disaster preparedness	Women given survival skills	Women are resilient
	During	Limited physical capacity to escape flood waters	Ensuring the safety of children	Integration of children's concerns on contingency plans	Children are assisted in escaping the hazard	Children able to use survival skills	Children survive the flood
Of children	Before	Do not understand the warning signs	Educating children on DRR and preparedness	Integration of preparedness and survivability in classroom instruction	Children provided with easy to understand early warning	Children are trained on basic skills on survival	Children are resilient

					Expect	ted Changes or Res	JIts
Components	lime Element	capacity uaps	UDJectives	DKK Measures	Output	Outcome	Impact
<b>Community Readiness:</b>							
		<ul> <li>No available vehicle to transport affected individuals</li> </ul>	Setting up		Unity and cohesiveness of the community		
	During	<ul> <li>Village nearth center does not have materials to provide first aid</li> <li>Evacuation center is limited</li> <li>No early warning system</li> </ul>	community systems and procedures to save more lives and properties	Formulation of community contingency plans for the various scenario of the hazards	Increased capacities of community members as well as local governments to respond	Efficient execution and the contingency plan activities	Community is resilient
Transportation Health Services Evacuation System Communication Internal Response Early Warning	Before	<ul> <li>Roads are not passable to passable to safely bring first responders</li> <li>High malnutrition rates and low vaccination rates</li> <li>Evacuation system is absent</li> </ul>	Strengthening development programs in the community	Integrating DRR into various development programs and projects of the community	Establishment of systems and procedures for preparedness like early warning, evacuation drills Effective community nutrition program Effective execution of primary health care and hygiene Support for livelihood activities of community	Unity and cohesiveness of the community Increased capacities of community members as well as local governments to respond	Community is resilient
					members		

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Components	Timo Elomont	anej rejoenej	Objectives		Ехрес	ted Changes or Res	ults
		רמףמרווע עמףא	ODJectives		Output	Outcome	Impact
Organizational Development		No existing DRR organization	Forming and strengthening a community DRR organization	Organizing a community DRR organization Organizational development for this DRR organization	Community organization formed	Community organizing is functioning and efficiently implementing DRR measures	CMDRR is sustained in the community
Monitoring and Evaluation		No MEL system installed	Setting up and operating an effective MEL system	Establishment of MEL systems and procedures	MEL system established and operational	Lessons are generated and used by the community	Evidence generated to show disaster risks are reduced
#### **Attachment 3. Reading Material**

### Notes on Community's Vision and Goals for **Community Resilience<sup>1</sup>**

#### **On community vision**

What is a community vision of resilience? A vision is the stakeholders' shared image of their community's future in terms of resilience. It answers the question "What do you want your

#### Why is community vision important?

- A widely shared vision is the most powerful engine that drives a community to progress in their pursuit of resilience.
- It serves as the driving force that moves the whole community towards achieving a common resilience direction.

community to become in the future?" How do you see your community in the future?"

It provides guidance to the various efforts of the community to achieve resilience.

#### Benefits of having a community vision

- It provides a sense of pride and purpose.
- It gives a clear sense of direction.
- It gives a sense of how things can be done.
- It encourages the community to become forward-looking by understanding their idealized resilient image of their community.

#### What should we keep in mind when formulating a community vision?

- It is simple.
- It engages hearts and minds (inspiring)
- It is an assertion of what the community wants to happen.
- It gives hope for the future.
- It is a living document that can always be changed as necessary.
- It is a road map for change.

#### **On Goals**

#### What is a goal?

A goal is a statement of desired accomplishment which is:

- Specific
- Observable
- Realistic

Five key elements of a good goal statement

- 1. Specific: provides direction and points to behaviors that need to be adjusted
- 2. Related to performance: explains what everyone needs to do
- 3. Encourages participation: it is clear of how participants can be involved in the implementation
- 4. Realistic: capable of being achieved
- 5. Observable: the results can be measured and seen by those around.

#### An Example of a Community Vision, Goals and Milestones

Vision: A resilient and progressive community where people are living in harmony with their environment

Goals:

- 1. To increase the survivability of most people at risk by building their capacities;
- 2. To implement actions that will address the root causes of disaster risks and incapacities of the community; and
- 3. To effectively manage the various risk reduction activities in a manner that is transparent and accountable.





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<sup>&</sup>lt;sup>1</sup> Adopted from the IIRR-LWR book on CMDRR in Local Development Planning, 2011.

Attachment 4. Handout



### Case Story: To whom do I give this CMDRR Measures and Plan<sup>1</sup>

The Center for International Learning (CIL), a local NGO in Bangladesh, received funding support from its donor agency in The Netherlands for implementing a new project called "Community Managed Disaster Risk Reduction" in a cyclone-prone south east coast of Bangladesh.

Nargis, a college graduate who has previous experience in working with a micro-credit program operated by a different NGO, applied for the job as CMDRR facilitator and was selected by CIL. Nargis was trained to facilitate CMDRR processes. With her utmost sincerity and commitment, Nargis learnt facilitating for the community to conduct PDRA, determine DRR measures, develop DRR strategies and finally action planning. After building trusted relationship with the community of a village namely Jagatpur, Nargis efficiently conducted PRA sessions of PDRA with male, female, poor, rich, youth, students, local government officials.

At the end of the PRA (also known as PLA) session, Nargis conducted a day-long village workshop to consolidate the outcomes of the PRA session through which the participants were able to determine the DRR measures. This workshop took place in the Jagatpur Primary School. Nargis' office provided budget for the 20 workshop participants who have previously participated in different PDRA-PRA sessions.

Nargis felt confident that she could apply the method and tools for facilitating community to move forward to the next step of the CMDRR process. During the DRR risk analysis and measures development workshop, Nargis together with the workshop participants decided to conduct DRR action planning workshop after a week. It was also discussed that the action planning workshop would be participated in by 30 persons, male and female local government representatives, leaders of other groups, students and youths.

The workshop was devoted to preparing a one-year DRR action plan for Jagatpur. By 4 p.m. of the workshop day, Jagatpur had a CMDRR action plan. One after another, the participants started leaving the venue. The CMDRR action plan of Jagatput was going to be left on the on the flip- board of the workshop venue.

The questions then came to Nargis: To whom do I now give this action plan? What organization now will be the in-charge of implementing this action plan?

Nargis requested the participants to come back in workshop room. She told them, "All of you are leaving now but I don't see any point of developing this action plan until we settled who/ which organization would hold this action plan and initiate its implementation."

The participants responded: "Apa (sister) we are ready to be part of the activity implementation. In the plan, for some activities, our names are written as responsible to take part in those activities. If someone calls us, we are ready to take part. But we don't know who or what organization is going to make that call."

An aged participant in the workshop looked at Nargis and with a mild smile, said, "You helped us plan how to ride in a car without thinking who will drive the car. We are passengers ready to take a ride but we need a driver to drive this CMDRR car in our village. Who will hold the steering wheel of the car and drive, and from time to time ensure that the car will run smoothly?" Nargis left the workshop, her question unresolved.

<sup>&</sup>lt;sup>1</sup> Developed by Shaymal K. Saha IIRR's Regional Center for Asia

Before doing the CMDRR action plan and during the DRR planning session, would it have been right to discuss with the participants the following questions:

- Who should be the driver of the CMDRR car for Jagatpur village?
- What are the ways to examine and service the CMDRR car?

Nargis determinedly tried to relate the car, driver and servicing symbols used by the aged man. Finally, she got the answer. She realized that she should have resolved the questions during the first session on DRR strategy development.

Discussion questions:

- 1. What are the two strategic questions Nargis discovered which had to be answered during DRR planning?
- 2. Why is finding answers to these two questions important while developing the DRR Measures and action plans?
- 3. If you are Nargis, what would you do? Why and how?
- 4. What are the main lessons we can draw from this case?

**Attachment 5. Reading Material** 



# On the main questions in formulating community DRR Measures

The three strategic questions which community DRR planning needs to address are:

What organization in the village (or in a selected unit of analysis) will hold the CMDRR Measures and draw up the accompanying action plans and lead in its implementation? What would be the appropriate form/s of that organization?

Several alternatives can be thought of by the community. If in the village or in the given unit of analysis there is an existing and appropriate form of organization, then they may select this organization as in-charge of implementing the CMDRR process in the village. This was the case in Corbada Uno, a barangay (village) in Philippines. The local government body had already formed the Barangay Disaster Coordination Council (BDCC). In this context, it was easy for workshop participants to recommend the BDCC as the appropriate organization.

Where there is no organization, the people may then form a temporary committee from among the participants which will work as an initial group and at the same time include activities in their action plan to develop it into a full-fledged organization and become the bearer of the DRR action plan. In other villages, there might be already an existing organization, similar to a Village Development Committee (VDC) that might have been formed through another development program intervention. In that case, the people may recommend that VDC to include DRR in its action plan.

Facilitating the community to think of appropriate forms of organization is very crucial because in many countries in Asia and Africa, the vulnerable sections of the population are not properly represented in the existing organizations, especially the village women. In some cultural contexts (as the case was in conservative areas in Bangladesh and probably Pakistan and Afghanistan) the females were initially not allowed to discuss and join the men in public places.

Their mobility is also limited within their relatives' houses and neighborhood. There are cultural situations wherein women cannot move anywhere in the village if the men are not with them. In this situation, the people may suggest separate organizations for men and women.

Whatever context exists, the CMDRR facilitator needs to assist the community to decide on the appropriate form of organization that would ensure wider representation and encourage participation by the appropriate stakeholders, especially the vulnerable population and women. This is a crucial point that needs to be settled before facilitating the DRR action planning.

- Once the first question has been answered, the next question is: what risk reduction measures need to be in place to address the different capacity gaps revealed by the PDRA?
- The next strategic question is: In what ways can a community organization conduct participatory monitoring, evaluation and learning in CMDRR? The answer to this question has a direct bearing on the DRR action planning because it determines the system of monitoring, evaluation and learning which provides basis for the targets in the DRR action plan.

# COMMUNITY ACTION PLANNING FOR CMDRR



# Duration: 1 hour 30 minutes

# Description

Once a community has successfully developed disaster risk-reduction measures for prevention, mitigation, individual survivability and community readiness, the next step is to develop a community action plan to be executed at a special period. This session focuses on how to prepare a CMDRR action plan in/with the community.

# **Learning Objectives**

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

- 1. Explain basic concepts and processes of an action plan and its purpose.
- 2. Demonstrate tools in facilitation of community DRR action planning.



#### Learning aids and materials

- White board
- Marker
- Flip chart paper
- Attachment 1. handout Group exercise tool for action planning

#### Procedure

#### Activity 1. Brainstorming (15 minutes)

- 1. Ask the participants what an action plan is and how different it is from the DRR measures. What are the important components of the Action Plan?
- 2. Explain the following points:
  - An Action Plan is based on the DRR measures. It is the implementation plan for identified DRR Measures.
  - It serves as the guide for the organization on how they will realize the DRR measures.
  - An action plan provides answers to the five Ws (What, When, Where, Why and Who) and one H (How).
  - There are basic elements that constitute a community DRR action plan. The wordings of an action planning matrix may or may not be the same as 5 Ws and 1 H but these elements must be included in an action plan. More important in planning is that it must have a specific action, with a designated person responsible for its implementation and allocated resources in a given time.
- 3. Clarify to the participants that the purpose of an action plan is to address specific and determined needs based on identified measures. Ask the participants the question, "What is the basis for identifying DRR needs when preparing an action plan?" Then wrap up the discussion to lead to the next session.

#### Basis for Determining the DRR needs in Community Action Planning

The basis of determining needs for a community action plan is the selected DRR measures. Needs serve as the means to bridge gaps between a desired state and the present state of reality.

Example: If creating access for poor families to credit facilities is selected as a measure, then the desired state is "access of poor families to credit facilities". What would be the present state of reality? It may be "majority of poor families have no access to credit facilities". Then one key question is, "What are the barriers to credit access?" The possible answers may include, "They have no savings". When we ask how the barriers can be overcome, the answer provides ideas about the means to bridge the gap such as, "Organize the poor family members into a savings group". This is the need upon which the community prepares the action plan.

#### Activity 2: Demonstration: Determination of tool (1 hour)

- 1. Distribute the exercise tool (Attachment 1) among the participants and explain how to use the tool.
- 2. Divide participants into three small groups and explain the tasks for the group exercise. Distribute only one or two components of DRR measure to each of the groups.
- 3. Engage participants in the group exercise, with the following instructions.

 Building on the outcome of the previous session and as per instruction on the exercise tool, each group will work on one of the components of the DRR measure. For example, Organizational development (group formation/village level institutions); Risk reduction (ex: vegetables/ livestock); or Monitoring and evaluation. 2 Sub 2.2

- Each group will work on a flip chart paper and share the results in a plenary presentation.
- Time allotted for the exercise is 20 minutes.
- 4. In the plenary presentation, give each group two to three minutes for reporting. The rest will examine the report and ask questions if needed. The trainer will carefully examine the formulation of outcome then correct and clarify these.

## Synthesis and feedback (15 minutes)

Synthesize the session by pointing out the following points:

- Any action plan is developed to address selected needs to realize the identified DRR measures. When a selected need is converted into an action then it becomes the objective of the action plan.
- Assisting the community in preparing its DRR action plan without identification of needs may not result in a realistic plan.
- Selection of needs should consider the practicability of the community to address those needs.
- Often, the community action plan is not implemented because of resource limitation. It is very important to include resource identification in the action plan e.g. identification of resources available at local government level. There remain many schemes on village development or risk reduction, which can be tapped. (Tip: One can use Venn diagram or Stakeholders Analysis for resource availability).
- At the end of the action plan preparation, help people identify indicators of change. This provides the basis for baseline data, monitoring, evaluation and learning. It is very important to recognize that monitoring/evaluation begins at the planning stage. If the people do not identify their own indicators of change and instead rely on indicators provided by an external agency, the process cannot be called participatory monitoring/ evaluation.
- It is always better to use locally useful words/sentences in action planning tools/matrix.

Attachment 1. Handout



# Group exercise tool for action planning

#### Guide for the exercise

This tool comprises two parts. Part A is an example of an action plan that was developed by the Barangay Council of Herrera in Ligao City, Albay province, Philippines. Using the example of Part A, work on Part B to identify and summarize needs and then prepare an action plan on the given DRR strategy.

# PART A (Example)

#### **Action Identification**

Barangay Herrera, Ligao City, Philippines, 9 February 2007

BARRIERS	NEEDS /POSSIBLE ACTION
Not yet initiated by the Barangay Council	Form BDCC by Barangay Council's resolution
Lack of information	Provide information and involve YOUTH in CMDRR
Lack of capital or no source of seedsInadequate knowledgeable on cropping pattern system	Provide intercropping finances, seeds and skills development
20% of the families has no space to raise livestock or poultry but with capital	Those families with backyard space be provided with financial assistance in order to raise livestock or poultry
20% of the families has no capital but with space	Land Use PlanSkills development on homestead Land Use Plan
Ignoring warning signals	Early warning campaigns
Lack of awareness	Survival food stock awareness
Lack of awareness	Potable water reserve awareness
Lack of awareness on evacuation	Create awareness
Inadequate family level preparation	Introduce family level safekeeping system
No training and skills	First aid skills training among BDCC members and volunteers should be initiated
	BARRIERSNot yet initiated by the Barangay CouncilLack of informationLack of capital or no source of seedsInadequate knowledgeable on cropping pattern system20% of the families has no space to raise livestock or poultry but with capital20% of the families has no capital but with spaceIgnoring warning signalsLack of awarenessLack of awareness on evacuationNo training and skills

Community DRR Action Plan For the period of February to August 2007 Barangay Herrera, Ligao City, 9 February 2007

Objectives / actions (what)	Activity and target /how	When	Resources (how much and from where)	Who will do/person/ organization responsible (clear name	Expected change/ result in the Barangay after implementation of the plan
1. To form BDCC	Inquire at DILG regarding BDCC formation Barangay Session Meeting with BDCC members	12 February 2007 18 February 2007 21 February 2007	Log Book Meeting venue	Barangay Council	
2. To introduce participatory monitoring and evaluation in BDCC and MAQUIWASA	The Barangay Secretary will invite the BDCC members at Barangay Hall (50%) Meeting or workshop 11 Meetings BDCC and MAQUIWASA Quarterly meeting Yearly evaluation and action Planning The BDCC secretary will invite MAQUIWASA to send representative Conduct 1 day PME Orientation	1st week of March February, May, August, November October for 2008 1st week of March	Meeting venue (Brgy. Council) Snacks (P220 per meeting member contribution) Snacks (MAQUIWASA, Barangay Council Venue (Barangay Council) Transportation (MAQUIWASA) Supplies (IIRR) Venue, Facilitator, Supplies, Venue, Meals or snacks Venue: Barangay Council Resource persons: DILG	BDCC Secretary BDCC, DILG, BC MAQUIWASA, IIRR, BDCC Baragay Capitan Barangay Council, BDCC BDCC BC	Active and functional BDCC Skills development at BDCC members regarding PME Family level awareness or preparedness increased People would be able to explain warning Implementation of household land use plan
3. Early warning campaign or awareness	Conduct 1 day awareness campaign	2nd week of March by the barangay council	Venue: Barangay Hall Materials: Barangay Council		
4. Awareness of family level preparedness and readiness	3-5 days Training Seminar for BDCC	April 2007 BDCC Members 20 participants	Food: Barangay Council Resource Person: CDCC		

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Objectives / actions (what)	Activity and target /how	When	Resources (how much and from where)	Who will do/person/ organization responsible (clear name	Expected change/ result in the Barangay after implementation of the plan									
			Venue: Brgy. Council											
5. Introduction of Homestead	Organize Orientation session for	Conduct half-day meeting	Resource Person: LGU Ligao											
Land Use Plan	land use plan (2 meetings)	by CPDO in May	by CPDO in May	by CPDO in May	by CPDO in May	by CPDO in May	by CPDO in May	by CPDO in May	by CPDO in May	May	by CPDO in May	Food: Brgy. Council		
			Materials: Brgy. Council											
6. Monitoring of plan	Data collection in field with the help of tools Reviewing the progress of work/analysis and feedback	Every month, first Sunday of month 10th of every month (Committee level meeting)	Not required	Mr. Rozario with VDC leader	Status of implementation of plan will be known.									

# PART B (Action Planning Exercise 2)

#### **Action Identification Form**

IDENTIFIED DRR MEASURES	BARRIERS	POSSIBLE ACTION

#### **Community DRR Action Plan**

Action/ objective	How (activities)	When	Resources / how much and from where	Who will do/ person/ organization responsible	Expected change/ result in the Community after implementation of the plan

#### Note to facilitator

 While facilitating the need prioritization exercise, please explore the reasons of "High/Low" and not just write based on the response from community. The community must justify why they feel there is high/low probability of success/external support or importance. At times, the facilitator may need to challenge the community as well. For example, ask questions like: Why do you feel this is important for you? Why do you feel external conditions are favorable? Are you sure this is achievable? If yes, how?



- It can happen sometimes that only one or two members will end up taking all responsibilities. These are usually the people who are more vocal or are in positions of leadership. It is important for the facilitator to ensure that different responsibilities are divided among different members of the community. Otherwise, the plan will be limited to a few people with less accountability and ownership.
- 3. While allocating resources, the first emphasis should be to explore resources available within the village and community. It can be in the form of cash, in kind, or even labor. Second, it is important to explore all possible government schemes and have information of those schemes before planning so that resources can be mobilized from the government. Usually, capacity-building, information-dissemination and awareness-building become the responsibility of an NGO while other aspects like infrastructure or construction will come from the government.
- 4. It is important to keep a monitoring system as part of the action plan. If left unchecked, the plan would remain a plan or the community would miss the deadline.

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# CONTINGENCY PLANNING



Duration: 2 hours

# Description

Once a community has successfully developed disaster risk reduction measures for prevention, mitigation, individual survivability and community readiness, the next step is to develop a community action plan. This session focuses on how to prepare a CMDRR action plan in/with the community.

# **Learning Objectives**

By end of this session, the participants should be able to:

- 1. Facilitate context analysis using the PDRA information as baseline information in contingency planning,
- 2. Appreciate the need to have standard operating procedures, baseline and real-time data as well as contingency plans,
- 3. Appreciate the need for community-managed early warning system,
- 4. Use PDRA information in scenario-building contingency plan development

#### Learning aids and materials

- A flip chart stand
- A roll of flip chart paper
- 1 packet of markers (assorted colors)
- Attachment 1. Handout Case Study 1: Emergency at 3 a.m.
- Attachment 2. Handout Case Study 2: Emergency but 6 hours later
- Attachment 3. Basic guide on what goes to development plan and contingency plan
- Attachment 4. Handout Contingency planning format
- Attachment 5. Handout Community-managed damage assessment and needs analysis
- Attachment 6. Contingency plan coordination and partnership
- Attachment 7. Sample Contingency plan of Muzon 1 village, Rosario, Cavite, Philippines

#### Procedure

#### Activity 1. Group work on standard operating procedures and contingency plan

- Distribute the exercise on Wullo South Sudan (Attachment 1) to all training participants. Participants should discuss this with their field practicum groups and answer the following questions, (taking note as well of the questions posed at the end of the exercise):
  - What are your immediate needs?
  - What would you do?

The groups have 30 minutes to complete the exercise, after which they will report back to plenary, with their responses written on flip chart papers.

- 2. Have the groups take turns reporting, allowing for clarificatory questions at the end of each presentation. Have the Responsible Team facilitate the plenary discussion.
- 3. Wrap up the exercise by asking the following questions: It is 3 a.m. and you, an Acting District Disaster Officer (ADDO) are awakened by a loud noise. Is it a moment of shame or fame? Why?
  - First, remember that as the ADDO, your main objective is to save lives including your own. However, there are two issues here: Which do you prioritize: your own life or the many lives around you? Why? Running to save yourself first could get you killed. The action the CMDRR worker takes will be determined by the training he/she received on how to respond to emergencies.
  - Second, the results of the exercise (list of immediate needs and action points) reflect the perceptions, assumptions and imagination of the members of the groups. Although they are members of the same group or perhaps the same emergency response team, they may come up with different plans, reflecting their mental maps. It means that should an emergency erupt, the group members will respond differently. This highlights the need for defining the Standard Operating Procedures in responding to emergencies.
  - Third, remember that the you are also a victim and may be in a state of shock. However, you need to get out of the victim role as fast as possible. Those in shock tend to rely on instinct, which is not recommended. A plan must be put in place in case of emergencies. This is called a Contingency Plan.
  - Based on the Disaster Risk Analysis, what-if scenarios may be created and various contingency plans may be defined in response to possible scenarios.

#### Activity 2. Baseline Data and Real Time Data

- Ask the participants to go back to their groups and distribute Attachment 2. Take note of the question at the end of the case study: "As Acting DDO, what would be your information (baseline and real time) needs 6 hours after the onset of the emergency?" Tell the participants they have 30 minutes to finish the task.
- 2. Ask the participants to report to the plenary the responses of their groups.
- 3. Wrap up the exercise by stressing the following points:
  - In an emergency, the community organization needs to be equipped with both baseline and realtime data about the community or area of jurisdiction. Baseline data is usually derived from the PDRA process examples of which are: total human population (human elements classified by gender, age socio-economics special categories). Real-time data examples are number of casualties and deaths among human elements (listed according to gender and age), the number of non-human elements left or available, among others as the emergency evolves.
  - The baseline and real-time data enable the community organization to:
    - Respond effectively and punctually to the evolving situation through the effective and efficient use of Damage Assessment and Needs Analysis (DANA)
    - Inform superiors or other actors (e.g. journalists, NGOs) about the situation on the ground and verify the clear magnitude of the adverse effects.
    - The community declares a disaster and hence calls for external assistance when necessary.

#### Activity 3. Contingency planning format

- 1. Distribute to the participants the contingency planning format (Attachment 4).
- 2. Explain the basic elements in a contingency plan:
  - A contingency plan is defined as a process, in anticipation of potential crises, of developing strategies, arrangements and procedures to address the humanitarian needs of those adversely affected by crises (Choularton 2007).
  - A contingency plan guides the action of a community or stakeholders in response to a hazard and is tailor-made precisely according to the needs of the community. To come up with a contingency plan, risk assessment is subjected to a "what-if scenario". The following are the elements in the contingency planning form:

#### Column 1: Disaster Risk Assessment

The summary of the community disaster risk assessment. For example, village X has high/ medium probability of hazard Y occurring during the months of Z and it would last for period \_\_\_\_\_. The elements at risk are E and F, which are affected in A, B, C and D ways. The community has a low capacity to cope with the situation, which means that the likelihood of a disaster occurring is very high. Disaster risk analysis forms the basis for determining the risk levels and development of recommendations to address the gaps identified to ensure that disaster risk is reduced and therefore disasters avoided. This will minimize loss of lives and livelihood.

#### Column 2: What-if scenario

Scenarios are descriptions of situations that could occur: they are sets of informed assumptions about a situation that may require attention in enhancing coping capacities. There are different case scenarios: best case scenario, middle case or most likely case scenario and worst case scenario. In CMDRR, it is preferred to focus on a most likely case (or middle case scenario) targeting on the gravity of the hazard and its exposure variables. These scenarios are informed by the risk analysis result which shows the various human and non-

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human elements that have capacity gaps (the most at risk groups including the non human element of productive assets and critical facilities).

This provides a detailed description of the force of hazard and the likely impact on elements at risk, clearly stating the assumptions. Worst case scenario always tries to project the various characteristics of the hazards such as force of the hazard against the elements at risk versus the existing capacity to cope, duration, frequency, period of occurrence among others. This gives a clear dimension of the possible emerging gaps which the contingency plan should be able to address.

#### An example of Merti community scenario building

Worst Case Scenario of the Hazards	Potential Scope/ scale in terms of number of people / livestock affected	Assumption in terms of community coping capacities	What we need to plan in emergency to respond number of people to target to specific type of support
Severe drought hits Merti community causing over 30% livestock mortalities, acute water shortages for both domestic and livestock uses. Mass migrations of community members to insecurity prone areas in Koom,livestock and human diseases outbreaks,. Sustained household food insecurity will expose 450 children, 75 pregnant, 51 lactating mothers, and 95 elders to risks of malnutrition	All villages in Merti are equally affected where estimated livestock are as follows: Cattle-90% (N=7,500) Camel-20% (N=3,530) Shoats-50% (N=49,095) Donkey-5% (N=591) 450 children under 5yrs,75pregnant,51 lactating mothers, and 95 elders are exposed to malnutrition risks. Over 250 households will be threatened by acute water shortage	<ul> <li>Livestock stable water source eg Waso, Siraa are partially accessbile</li> <li>Only 30% of households have access to water</li> <li>Strategic livestock grazing areas eg Shirab are accessible</li> <li>Plain landscape that reduces fatigue to livestock</li> <li>Fodder harvesting from acacia pods is availablle</li> <li>Destocking in good time by households</li> <li>CBAHW are able to contain sporadic disease outbreaks</li> <li>Support to veterinary drug</li> <li>50% of special categories and children under 5yrs have access to nutritious food</li> </ul>	<ul> <li>Water trucking for domestic use for 70% household</li> <li>Fuel subsidy for boreholes in dry season grazing areas</li> <li>Fast moving spare parts</li> <li>Provision of fortified and livestock feeds</li> <li>Provision of hay</li> <li>Accelarated destocking</li> <li>Mass treatment of livestock</li> <li>Relief food and food supplements provisions targeting 50% of households</li> </ul>

#### **Column 3: Action points**

These are the details of responses to the described scenario. They should be more proactive rather than reactive i.e. action before and when the hazard occurs. These actions/responses should seek to immediately prevent or lessen the hazard as well as eliminate or mitigate the exposure of elements at risk to the impact of the hazard's force. The action plans or responses should also ensure that basic life-saving and sustaining services are readily available as well as a community mechanism for assessing the extent of the damage and needs.

#### Column 4: System installed

This is a set of activities with resources identified, including the human resources that would execute the action plan/response. There should also be a clear time indicator for action, for example, early warning system, emergency assessment teams, evacuation systems, etc.

#### **Column 5: Roles and responsibilities**

Identify the persons and their responsibilities for operating and activating the system installed.

Explain to the participants that every contingency plan is prepared based on the characteristics of the chosen hazard. A contingency plan is hazard-specific. The community determines the characteristics of the hazard based on an assessment during the conduct of the PDRA.

The basis to be used in the preparation of the contingency plan is identified by asking whatif questions. At the community level, it is not easy to select several hazards and facilitate the preparation of the action plan because the analysis and action plan are hazard-specific.

A specific hazard requires a separate set of action plan. Considering the capacity of the community, the DRR action plan is usually made based on one selected hazard.

A more detailed discussion on community-managed damage assessment and needs analysis is provided in Attachment 5. Distribute the handout to the participants.

#### Activity 4

- 1. Divide participants into four small groups.
- 2. Distribute cards and assign identified recommendations focused on prevention, mitigation, individual survivability and community readiness capacity gaps to each group. The group then had to look at these recommendations and discuss.
- 3 Ask the groups to classify, using the cards, whether recommendations fall under "development plan" or "contingency plan".
- 4. Each group should present their deliberations during plenary.
- 5. After group presentations, end the proceedings by highlighting the importance of determining what goes into the development plan and what goes into a Contingency plan. Use Attachment 3: Reading Material on Basic guide on what goes to development plan and contingency plan.

### Synthesis and feedback (20 minutes)

- The action the CMDRR worker takes will be determined by the training he/she received on how to respond to emergencies.
- Having a defined set of standard operating procedures helps ensure how the emergency response team will respond as one and not base its actions merely through perceptions, assumptions and imagination of its members.
- A contingency plan guides the action of a community or stakeholders when responding to the occurrence of a hazard. It is tailor-made precisely according to the needs of the community and to the hazard that is most likely to happen.

### **Suggested readings**

- International Federation of Red Cross (2000). Disaster Preparedness Training Manual. IFRC 2000
- Jeremy Swift (1989): 'Planning against drought and famine in Turkana: A district Contingency Plan' in 'Coping with drought in Kenya'. Downing T. E.et al. (Eds.) Lynne Rienner Publishers, London.



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IIRR, Cordaid and Acacia Consultants. 2004. Drought Cycle Management: A toolkit for the dry lands of the greater Horn of Africa, International Institute of Rural Reconstruction, Nairobi, Cordaid, The Hague, and Acacia Consultants Nairobi



#### Attachment 1. Handout - Case Study



## Exercise 1. Wullo, South Sudan<sup>1</sup>

You are the Acting District Disaster Officer (ADDO) of Wullo because the DDO is away attending a Community Managed Disaster Risk Reduction course in Nairobi with IIRR. Wullo is a lowland district that suffered from the previous war and still suffers occasional flooding and frequent tribal conflict over grazing resources. Although often severe, these hazards are generally responded to rather well despite the relative poverty of the district. The area is also known to lack facilities and infrastructures, such as hospitals, schools, potable water and roads. Malaria poses a challenge in the area, but there has been no significant outbreak in living memory.

You are awoken at 3:30 a.m. on August 28, 2006 by a loud noise. You hear people running around and shouting for help because of a mass burning of houses by the town militia. You then realize that your house is filled with smoke and the walls are shaking, as if about to collapse. Parts of the roof are falling in, and you dive under the bed and wait. After a while, feeling safe, you come out and peer into the darkness. The air is filled with dust and it is difficult to breathe. You make your way over the debris to the lamp but find it broken. You scramble around and find the phone but there is no network connection. Fortunately, your family is away in Juba visiting relatives.

You make your way outside the recently completed section of the house, where your driver and his family live, only to find it has totally collapsed, with smoke coming out of it. Your government car is somewhere under the rubble and you cannot locate it because of the thick smoke. Perhaps your servants are still alive, trapped under the rubble. Around you, you can hear cries and shouts from neighbors. They are in a state of panic and chaos.

You are the most senior government official in the District. Your office is 5 kms away. Something has to be done, but what? You are in the hot seat! This is your moment of fame or shame.

#### **Problem solving**

Working in groups, list:

- 1. the acting DDO's immediate needs,
- 2. 10 actions he/she should take to meet those needs.

Each group should present its findings using flip charts in the plenary session.

Group discussion time: 20 minutes Plenary presentation time: five minutes

<sup>1</sup>Adapted from ADPC's DANA Exercise

#### Attachment 2. Handout - Case Study

# Exercise 2. Wullo, South Sudan<sup>2</sup>

You are still the Acting District Disaster Officer (ADDO) of Wullo. It is now mid- morning of August 28, 2006. You have established an Emergency Operations Center in a lightly damaged police station. There is still no power and water, but you have a generator set and the police's VHF radio. Many of your staff members have not yet been accounted for. It is obvious that the attack has been extremely severe. The newly set up temporary houses of those displaced are on the other side of the town. The heavy rains, however, have rendered the roads impassable. Thick mud has made it impossible for vehicles to negotiate the area. Two big trailers are already stuck on the road, blocking it. You know that most of the casualties and damage will have been on the poorer and more densely populated side of the town where the IDPs are.

#### **Problem Solving**

Working in the same groups as in the previous exercise, reflect on the information needs and priorities. Consider "information" in two categories:

- Baseline data
- Real time data

What are the reporting responsibilities of the acting ADDO? Make a list of the information needed, to whom it should be sent, when it should be sent, and how often it should be updated. Use the tables provided to format your answers.

#### **Information needs**

Information needed	Possible Sources	Priority
		1 2 etc

#### **Reporting responsibilities**

Information	Send to?	Send when?	Update when?

Each group should present its findings using flip charts in the plenary session.

Group discussion time: 20 minutes Plenary presentation time: five minutes





**Attachment 3. Reading Material** 



# Basic guide on what goes to development plan and contingency plan

From the PDRA information, disaster risk levels are determined based on the risk analysis, given the identified capacity gaps in terms of prevention, mitigation, survivability and community readiness systems. It is important for the facilitators to be able to establish the relationship and linkages with the PDRA information. This will empower the team and the community members to be able to focus on appropriate recommendations to either prevent or delay a hazard from occurring. Recommended measures might also be put in place to anticipate the hazard. Measures such as these are either medium- to long-term. Long-term developmental measures are needed to correct the identified capacity gaps. In the PDRA, capacity gaps are identified at the time a hazard occurs or capacities before the hazard itself happened. These capacity gaps are considered in the long-term development plan and in the contingency plans. The table below outlines where the capacity gaps are included:

Recommendations focusing on capacity gaps identified in:	Time element	Type of plan involved
Prevention		Development plan
Mitigation		Development plan
Individual survivability	Before	Development plan
	During	Contingency plan
Community readiness	Before	Development plan
commonity reduiness	During	Contingency plan

Not all capacity gaps identified during the hazard event can be included in the contingency plans. Rather, these are to be considered during the development plan. For example, in the PDRA, the absence of an early warning system was identified as a capacity gap during a hazard. This capacity gap should be included in the development plan since there should be an early warning system before the hazard event.

Attachment 4. Material for Activity



# Contingency<sup>1</sup> Planning<sup>2</sup> (What if)

Analysis of Risk	What if scenario?	Action points	Systems installed	Defined roles and responsibilities
		Warning Signals		
		Evacuation Area/ safe Shelter		
		Food supplies		
		Medical Supplies		
		Logistical Supplies		
		Transportation communication		
		Community Managed Damaged Assessment and Needs Analysis	If the situation can be coped with thru the community capacity then the hazard risk is manageable but otherwise, the community should declare itself a disaster area	

<sup>2</sup> Is a set of activities with resources ready, with human resource ready to execute and clear time indicator for action.

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 $<sup>^{\</sup>scriptscriptstyle 1}$  Is a situation that is likely to occur, but may not.

Attachment 5. Handout



# **Community Managed Damage Assessment and Needs Analysis<sup>1</sup>**

The practice of Damage Assessment and Needs Analysis may be qualified by the relevance and objectivity of the information gathered both in pre- (during the PDRA process) and postdisaster situations. This establishes the baseline data and the real-time data. The collected PDRA information provides a baseline on the hazard's magnitude to the affected human and non-human elements. It is thus important that the PDRA information and other necessary secondary data are updated to enable the communities and their partners to develop a context analysis and general vulnerability update. This will give a perspective of baseline and real-time data.

Effective action, timely response and decision-making may be hampered due to lack of accurate information and feedback from disaster-stricken areas. Critical information includes the extent of physical harm to the population, damage to properties and lifelines, as well as actual requirements of the victims and responders. Community ownership of this information not only empowers people to lead in the review of mitigation measures but also provides a reflection and learning for planning and effective response. Effective and more focused targeting interventions will be identified and prioritized in the process.

However, due to insufficient information from the field, huge amounts of relief goods are usually poured into calamity-stricken areas. This created a mentality among local communities of total incapacitation when calamity strikes, especially when it is readily declared by the national government as a disaster area.

A community managed damage assessment and needs analysis (CMDANA) is likewise a gauge when requesting external assistance. Rather than having people from the outside determine the damage and needs, the community itself provides the information on what has happened and what needs to be done. This process contributes to community empowerment and prevents undermining their capability to respond to hazardous events.

The CMDANA will enable us to map out relief and rehabilitation efforts that are focused, timely and responsive.

### Objectives

CMDANA is intended to be practiced in the village context with the following objectives:

- 1. To determine the village information needs by establishing a baseline data,
- 2. To help the villagers define their own criteria and indicators of coping capability and the communal level of response,
- 3. To enable the community to identify and give attention to their most at-risk groups,
- 4. To create a community standard on the definition of terminologies used in disaster situations,
- 5. To simplify and refine reporting templates/formats as well as reporting protocols for adaptability at the village level, and
- 6. To enable the villagers to create an internal disaster response committee as part of their capability and disaster preparedness.

<sup>1</sup>Source: Rusty Biñas Global Advisor for Disaster Risk Reduction

#### Practicing DANA in the village context

Conducting a Community-Managed Damage Assessment and Needs Analysis is primarily defining the information needs of a given community. It has to consider the data needed before hazard events as part of community readiness. In essence, CMDANA serves as the primary information system for a community managed disaster risk reduction.

#### Establishing the baseline data

Establishment of the baseline data is done through the process of Participatory Rural Appraisal wherein data are acquired through information-gathering tools which the community uses. During risk assessment, information is directly provided by the community through a series of activities like a transect walk, seasonal calendar, transect map, hazard mapping, wealth ranking, hazard story telling among other tools. The data are then collated and presented back to the community for verification. The output is verified, with additional information or corroboration directly provided by the community.

#### **Establishing real-time data**

Real-time data may be collated using simplified reporting formats and the information supplied by the identified disaster risk reduction committee. These real-time data are gathered through a process, starting with a flash report. Immediate relief operations are then provided by the Village DRR Committees. In this report, the data are accompanied by statistical figures. They contain the six elements needed namely:

- Location,
- Situation,
- Response,
- Gaps,
- Decision, and
- Time.

These data will determine if there is a need for external help. But contrary to the usual practice where outsiders determine the needs of a stricken community, this time, the members of the community themselves outline and analyze the damage and needs objectively.

As a community-managed activity, a simple planning, implementation, monitoring, and evaluation tool must be facilitated at the community level. To achieve this, the Community-Managed Damage Assessment Needs Analysis has to be institutionalized.

#### **Tools/Templates for the Conduct of DANA**

Report templates and formats, as well as reporting protocols and procedures have to be developed and standardized starting from the community level. External input will guide the village DRR committee to define the information they will need. This will then be their guide in developing the reporting templates and formats.

#### Terminologies

Technical terms tend to be confusing and hard to understand, thus posing a problem to the villagers. Furthermore, certain terms do not adequately measure the damage or injury. For example, the term "affected" is usually used in reports but does not quantify the extent of the effect. The use of such terms sometimes generates superfluous and needless response. It is therefore imperative that terms are quantified, not just by providing statistical data but also by giving clear definitions.

Listed next page are commonly used terms which have a wide range of interpretation. This list is among the primary things that should be discussed with the community during the pre-disaster DANA to establish the baseline data and policies for institutionalization.





- 1. Injured
- 2. Affected
- 3. Flooded
- 4. Burned
- 5. Collapsed
- 6. Victims
- 7. Life- threatening condition
- 8. Lack of (i.e. clean water, food, medicines, etc.)
- 9. Malnourished
- 10.Damaged

11. Sick

These terminologies, when misinterpreted due to the non-uniformity of definitions, could be a source of confusion and may add panic to a hazard event situation. It is important that clear understanding of these terminologies starts at the community level, with clear agreements within community members on what each terminology means in their own context.





The information flow emanates from the actual hazard events area. Data gathering is facilitated by the Village Disaster Committee and the output submitted to Village Disaster Coordinating Committees for response. The VDCC are composed of internal person/villagers and divided in SAR, Medicals, and logistical teams to readily respond to the needs of the affected communities.



# **Contingency plan coordination and partnership**

Effective Disaster risk reduction process requires broad partnership between the communities, the government agencies at different levels, the civil society organization, the UN agencies, and private sector actors. The at-risk communities should play a central role in the plan development, implementation, monitoring evaluation and learning. Development of contingency plans should be part and parcel of disaster risk reduction process. The plan could be developed at different levels using the bottom-up approach. In communities where community managed disaster risk reduction process is facilitated, the information generated during risk analysis should be used to help the communities develop their contingency plan. The importance of having the plan at this level is to ensure that community coping capacities are not undermined by strategized external support. The community contingency plan should specify at which point external assistance will be needed and how the community itself in an ideal situation would request it. Communities have their own thresholds in cases of livelihood performance e.g. in cases of livestock prices where the purchasing power at household level is totally undermined if a goat/sheep is sold at less than Kshs 1000 in Northern Kenya. For cases of natural resources, distances and time taken to access the resources, communities are guided in determining thresholds. A good example is the range user association in Merti of Isiolo County in Kenya where strategic boreholes are only used for watering livestock if water is only accessible at certain distances. These thresholds would therefore provide a guide on when the communities and their partners can activate developed contingency plans pegged on early warning information.

The generated community contingency plans and those generated by the government are supposed to have a close relationship. People should be aware that the community contingency plans shall form an ideal case to be used as basis for administrative level contingency plans. Disaster risk reduction established structures can facilitate this role to ensure success of a community managed disaster risk reduction process.

Developed contingency plan should stipulate roles and specify the institutions or individuals that are responsible for implementation. This will guide and develop working frameworks for effective targeting interventions. Community organizations are supposed to lead in ensuring implementation of the contingency measures to save lives and reduce the damage and losses. Community development partners provide the necessary external support to complement identified community capacity gaps. Community development partners such as government and NGOs can support the community in addressing their needs as stipulated in the community's contingency plan. For instance, needs relating to water would require the help of the water department team to address acute water shortages in close collaboration with other stakeholders. Veterinary services will also come in handy when there is an outbreak in animal diseases. Close collaboration will strengthen coordination of planned interventions thus improving goal of the contingency plan of the community.







## Contingency Plan of Barangay Muzon-1 Rosario, Cavite, Philippines

#### Background

This contingency plan is formulated as an important part of the disaster risk reduction initiatives of the Barangay DRR Management Committee (BDRRMC) of barangay (village) Muzon 1. After the participatory disaster risk assessment facilitated jointly by IIRR and the barangay LGU, a contingency planning workshop was conducted where representatives of the barangay analysed the results of the risk assessment and came up with a hazard worst case scenario. Flooding is the major hazard of the barangay and this contingency plan was based on the worst case scenario of the flood. This contingency plan is an articulation of the systems and procedures that will be installed and practiced by the community to better prepare its members against flood. Some of these systems and procedures require significant financial investments. As such this will be integrated in the long term barangay DRR plan for proper allocation of budget.

#### **Hazard profile**

Barangay Muzon 1 is one of the barangays in Rosario, Cavite fronting Manila Bay. The primary hazard identified in their barangay is flooding due to high-tide as the barangay is located below sea-level shallow and clogged canals. Some of the warning signs and signals recognized by the community include warning signs broadcast by PAG-ASA, calm sea, stinky water and floating of garbage. Oftentimes, it took 3 days before the hazard comes and the speed of onset of the hazard is within 4 hours. Based on their experience, flooding occurs from June to August and oftentimes the flooding lasts for 1 day. The effects of hazard to the community results in vomiting and diarrhea, dengue, cough and colds, athlete's foot, disturbance in water quality and distresses the schooling of the school children.

#### Worst-case scenario

In a scenario building workshop, the barangay describes the worst case scenario of flooding as follows:

Flood water may reach up to 6 feet. Impacts on human lives in all clusters in the barangay (A, B, C, D and E) will be affected with a possibility of drowning due to flood. There can be serious damages in properties and livelihood. And there can be looters and a possibility of hunger.

Areas	Existing Procedures/Steps/System	Persons involved	Recommended Protocols	Recommended Person Involved
Early warning systems and procedures	<ol> <li>Water level at least knee high in CLUSTER "A" (POBLETE), CLUSTER "D"(DEMOLISH) CLUSTER "E" "D"(DEMOLISH) CLUSTER "E" (MALIKSI) served as alarming the sound system for evacuation</li> <li>Village leader or assigned BDRRM committee order to alarm the sound system</li> <li>Alarm the sound system to tell the people to evacuate</li> </ol>	Barangay captain Barangay tanod	This existing system will be improved during the EWS workshop for the participants. E Persons to be involved are members of the Early Warning System (EWS) Team	-WS Team
Evacuation	<ol> <li>Evacuation center at the Barangay Hall can hold 20 people</li> <li>People not accommodated at the barangay hall will be fetched by municipal LGU using LGU vehicle to bring them to new market at Tejeros Convention</li> <li>Barangay officials and barangay Tanod assist the evacuation from houses to barangay covered court where they will be pick up by municipal LGU.</li> </ol>	Barangay captain, officials and tanod Municipal DRRM officer	<ul> <li>Upon the signal of evacuation, the people will perform the following procedures:</li> <li>1. Secure their emergency kits for all members of the household.</li> <li>2. Walk following the marked evacuation routes going to the designated evacuation area.</li> <li>3. Evacuation is to be assisted by the Evacuation team to secure the children, pregnant, elderly and the PWDs</li> <li>4. Upon reaching the evacuation center, each household member will be recorded in a logbook.</li> <li>5. Each evacue will be assigned an area in the evacuation center.</li> <li>6. Evacues that cannot be accommodated in the designated evacuation center in the barangay will be transported to the municipal evacuation center at the new market of barangay Tejeros Convention.</li> <li>7. Evacuation team will submit a report to the BDRRMC within 24 hrs opening up the evacuation center. Report should include list of families accommodated in the barangay evacuation center and the families turned over to the new market evacuation center and the families turned over to the new market evacuation center.</li> </ul>	

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Recommended Person Involved	d" Communication Team BDRRM Committee Chair	d Transportation and Communication Team	to Barangay Community Emergency Response e Team (CERT) and ACDV
Recommended Protocols	<ol> <li>Throughout the activation of this contingency plan, th communication team members will be posted at the following:         <ul> <li>EWS observation and monitoring station</li> <li>EVS observation area monitoring station</li> <li>Evacuation areas, 2-3 clusters including "Dreamlan area</li> <li>Central Operation Center at the barangay hall</li> </ul> </li> <li>BDRRRM Coordinating Committee will be convened immediately after the first hazard warning is sounded</li> </ol>	<ol> <li>The assigned barangay patrol vehicle will be statione at the Central Operating Center at the barangay hall to await for transportation orders.</li> <li>Send communication to the municipal health office to stand by for the need for ambulance to transport the injured and sick to the municipal health center.</li> <li>Submit a report to the BDRRMC within 24 hrs after the first warning is given. The report should state transportation needs.</li> </ol>	<ol> <li>The barangay CERT and ACDV will be called to report the Central Operating Center at the barangay hall.</li> <li>CERT and ACDV members will be deployed to assist in the evacuation of people.</li> <li>The teams will await advise for search and rescue as well as first aid needs of the evacuees and the genera population of the barangay.</li> <li>Submit a report to the BDRRMC within 24 hrs after th first warning is given. Report should include number of dead, injured, missing, treated and turned-over to municipal health center. Report should include needs</li> </ol>
Persons involved	Barangay council	Barangay captain, municipal DRRM officer	Barangay officials, BHWs, MDRRM officer
Existing Procedures/Steps/System	<ol> <li>5 functional radio transceivers and internet connection in the barangay hall.</li> <li>Transceiver will be provided to the people assisting the evacuation and EWS.</li> <li>Conduct of coordination meeting before ordering evacuation of people to assist and assign task to the barangay officials.</li> <li>The Village leader assigns a cluster leader to monitor and report the situation from time to time.</li> </ol>	<ol> <li>Municipal LGU sends ambulance to the barangay to pick up injured people.</li> <li>Barangay also have a multicab and 2 barangay tricycle to bring injured people to the municipal health center.</li> </ol>	<ol> <li>Injured people can go to barangay for treatment, major and minor injuries are treated in the municipal health center.</li> <li>No first aid capacity at the Barangay level.</li> <li>Search and rescue if within the capacity of barangay officials and health workers is conducted.</li> </ol>
Areas	Communication and coordination	Transportation	Search and Rescue

Areas	Existing Procedures/Steps/System	Persons involved	Recommended Protocols	Recommended Person Involved
Relief (Food and Water)	<ol> <li>Food distribution to the people in barangay evacuation center</li> <li>Stockpiling of food for the people in barangay evacuation center.</li> <li>If there is a state of calamity food is distributed to the people affected using the stub system, a master list is prepared and approved by Village leader.</li> </ol>	Barangay secretary, barangay officials	<ol> <li>The members of the WASH and Food Relief Team will be stationed at the designated evacuation center of the barangay.</li> <li>They will assign tasks for food preparation and distribution.</li> <li>They will prepare food, water, psychosocial needs assessment report within 24 hrs after the people have evacuated.</li> <li>This report will be submitted to the BDRRM Committee for proper action and turn-over to identified providers</li> </ol>	WASH and Food Relief Team
DANA	<ol> <li>Preparation of list of affected people in the barangay by using the criteria</li> <li>Damaged houses</li> <li>Evacuees</li> <li>Injured</li> </ol>		<ol> <li>Within 24 hrs after the first hazard warning signal is sounded, the BDRRM Committee will prepare DANA report and will be prepared every 24 hours thereafter.</li> <li>The information for the DANA will be collected from reports of all teams mobilized.</li> <li>The BDRRMC will immediately meet after the first warning is sounded to monitor and take decisive actions to reduce loss of lives and damage.</li> </ol>	



# COMMUNITY-MANAGED EARLY WARNING SYSTEM



Duration: 2 hours

# Description

Early warning systems are an important capacity for community readiness during hazard events. Loss of lives and damages to properties are prevented with a good and functioning early warning system. This is an important component of the community's contingency plan. In this session, the participants will be introduced to the general principles and process of how to work with communities in designing and setting up their early warning system. The PDRA results especially the hazard characteristics and the vulnerability assessment as well as the community's contingency plans requirements for establishing this system.

# **Learning Objectives**

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

- 1. Explain the basic concepts and principles of community-managed early warning system,
- 2. Demonstrate in the communities how to design and establish an early warning system.



#### Learning aids and materials

- Blank sheets of paper
- Markers
- Masking tapes
- Flip charts
- Colored papers
- Attachment 1. Handout Case Analysis: Surviving Freak Flood
- Attachment 2. Early Warning Systems and its Role in Disaster Risk Reduction
- Attachment 3. Handout Material for Group Activity 2
- Attachment 4. Establishing Community-managed Early Warning System
- Attachment 5. Reading Material Drought warning signs and signals

#### Procedure

# Activity 1. Small group discussion: What is a community-managed early warning system (CM-EWS)

- 1. Divide the participants into small groups of 5-7 members each.
- 2. Distribute to each of the small group a copy of the Handout 1 Surviving the Freak Flood
- 3. Instruct the groups to study the story and discuss the guide questions provided.
- 4. Allow each group to make their presentations in the plenary.
- 5. Summarize the presentations and highlight the following points:
  - Early warning systems (EWS) are important components of community readiness
  - EWS is intended to save lives and reduce the damage to physical properties during the hazard event
  - Community-managed EWS has four basic components and these are:
    - 1. Knowledge of the risks and hazard
    - 2. Monitoring and warning procedures
    - 3. Dissemination and communication
    - 4. Response capacity
  - The important principles of CM-EWS are:
    - 1. Based on participatory disaster risk assessment,
    - 2. Balanced use of indigenous and scientific knowledge for warning signals,
    - 3. Control and management made by the community,
    - 4. Maximized internal response capacity of the community,
    - 5. Use of traditional and community-accepted communication channels

#### Activity 2: Facilitating the Establishment of Community-Managed EWS

- 1. Distribute strips of paper to each group. Each strip contains the various steps for facilitating the establishment of CM-EWS. (See Attachment 2. Steps in Facilitating CM-EWS.)
- 2. Ask each group to discuss among themselves and arrange the different strips according to what they think is the correct flow in establishing CM-EWS.
- 3. After 15-20 minutes of small group discussions, ask each group to present their work to the plenary, letting them justify their logical flow. Allow time for clarifications and for the other groups to challenge the presentations.
- 4. Summarize this activity by presenting on a flip-chart the different steps in establishing CM-EWS. Carefully explain each step. Use the attached Reading Material on the process of CM-EWS in preparing your presentations and discussions.
- 5. Depending on the context and interests of the participants, research on examples of EWS and share these to them. There are suggested readings on EWS that can be used as a start to look for examples. There are also attached reading materials for drought early warning.

# **Synthesis**

End this session by reiterating the following points:

- The early warning system provides information that is useful for individuals and communities to save themselves and their properties during the hazard event.
- Early warning signals that are part of the contingency plan of the community should be activated to save more lives and reduce damage.
- CM-EWS is an important component of disaster risk reduction as part of the community readiness capacity and is embedded in the community's Contingency Plan
- The Community-managed EWS has four basic components and these are:
  - Knowledge of the risks and hazards,
  - Monitoring and warning procedures,
  - Dissemination and communication,
  - Response capacity.
- CM-EWS must to be truly community-managed and it must follow the principles of participatory processes and community ownership.

### **Suggested readings**

UN-ISDR, Developing Early Warning Systems: A Checklist, March, 2006, Bonn, Germany

Establishing Community Based Early Warning System Practitioners Handbook, Mercy Corps and Practical Action 2010



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#### Attachment 1. Handout



## Case Analysis: Surviving the Freak Flood<sup>1</sup>

It was in the last week of June in the year 2011 when Maria, a mother of two children aged three and five, was busy fixing the dinner table. It had been raining really hard for the past one hour. Rains like this usually lead to flooding in the streets in their village because of poor drainage. The village they are living in is located five meters from a small river. A kilometer away from their house is the coastline where the river drains into. But the flood waters had never risen up above one foot. This time, however, Maria noticed something different with the rain; this one was unusually hard, with the volume of water unusually heavy. She also noticed that the flood water, seemingly without warning, was slowly going inside their home. Quickly the water rose to four feet, then to six feet, until the water completely flooded their entire house. With the help of neighbors, she was able to bring her two children to safety on top of the roof of the house. That freak flood event left 24 people dead and one child missing, not to mention leaving hundreds of houses destroyed and a thousand people affected. It also damaged the flood control concrete structure that protected the village from future flooding.

To stop the repeat of such an event, the government established a flood water monitor in that river. The monitor was placed strategically in the stretch of the river. The government also assigned an employee from the city government to closely monitor the water levels whenever there are rains that last for an hour. The person monitoring is equipped with a hand-held radio transceiver so that information can be relayed to the stand-by emergency response and rescue teams of the city. When flood water rises at a rate that is faster than usual, the response and rescue teams are activated to proceed to the area. The village chief will also inform their cluster coordinators about the situation so that they can warn their residents by sounding a siren. The first sound of the siren means that the people are asked to be ready to evacuate; the second siren means it is time for the people to evacuate.

Maria and her two kids now felt safe that their village leaders have done something to warn them for future floods. She also made it a point to prepare some ropes and an evacuation plan that includes what she will do and where to go in case the flood waters will again come.

#### Instructions:

In your small group, discuss the following questions:

- 1. What do you think are the notable elements in the actions of the government to prevent loss of lives and properties in the future floods?
- 2. What do you think should be improved in order to make the actions effective and efficient?

Prepare a presentation for the plenary and you are free to make additional assumptions to support your presentation.

<sup>&</sup>lt;sup>1</sup> Developed by Wilson John Barbon, DRR/CCA Specialist RCA, IIRR

**Attachment 2. Reading Material** 

## Early Warning Systems and its Role in Disaster Risk Reduction<sup>1</sup>



The word "early warning" refers to the information provided to people and communities exposed to an impending danger. This information is useful in taking actions that will save them and their properties when the actual danger comes. Time and quality of information are important elements of a good early warning. The earlier the information is given, the more time for people and communities to act in advance; the better the information, the more effective people's and community's actions will be.

Early warning systems (EWS) is an important component of the community-managed disaster risk reduction (CMDRR). The EWS is one of the important systems and procedures to enhance capacities for community readiness and it is embedded in the community's Contingency Plan. The EWS is the trigger that will activate the Contingency Plan during a hazard event. A good EWS will result to a reduction of losses of lives and properties hence reducing the risk of a disaster happening after a hazard event.

The UN-ISDR defines EWS as a set of capacities needed to generate and disseminate timely and meaningful warnings that enable individuals, communities and organizations threatened by hazards to take the necessary preparedness measures and act appropriately in sufficient time to reduce the possibility of harm and losses. Guided by this definition, community-managed EWS according to the ISDR has four basic components and these are:

#### Knowledge of the risks and hazard

The design and contents of the EWS should be based on a sound and accurate assessment of the community risks and the hazard. Important characteristics of the hazard that serve as the basis for an EWS include the causes of the hazard, warning signs both traditional and formal (scientific and provided by agencies), forewarning, duration, frequency, period of occurrence and force. These data should already be available during the conduct of the participatory disaster risk assessment (PDRA). Other than hazard characteristics, an effective EWS must also be based on a thorough risk assessment whereby the people and the properties that are at risk are identified, their numbers known and their location pinpointed. The EWS must target those most at-risk members of the community.

Based on this information, the EWS system will now identify thresholds, indicators or stages of the development of the hazard and craft different levels of warning information that will be relayed to the most at-risk members of the community. For example, in a flood early warning system, the level of water in the river might be the basis for creating thresholds or stages. It can also be the amount of rain measured in a rain gauge. If the hazard is drought the basis for staging or thresholds might be the number of months without rain or the number of animals that are dying.

#### Monitoring and warning procedures

This component of the EWS includes procedures of monitoring the development of hazard on a regular basis. The community must be able to assign a permanent monitor that will oversee regularly the equipment that measures the progress of a hazard such as flood water level markings, rain gauges, etc. The warning procedures include what the warning levels are and the appropriate indicators for each level. For example a common warning procedure in flood is the three-warning levels of "Ready, Get Set and Go". Ready is level one warning which calls people to be vigilant for a possibility of flood. Get Set is level two warning which calls people to ready their evacuation kits because of flood happening within two to three hours. Finally Go is the final warning which calls on people to evacuate as floodwaters are

<sup>&</sup>lt;sup>1</sup> Developed by Wilson John Barbon, DRR/CCA Specialist RCA, IIRR



coming in less than two hours. These warning procedures must be constantly updated based on observations of the hazard and forecasting. For example in a flood hazard, it is observed that an increase of one foot in water level upstream causes knee-deep flood downstream in a span of two hours. This means that people downstream will have two hours to prepare once the water level upstream has increased by a foot.

#### **Dissemination and communication**

This component of the EWS is the method of giving the warning to the targeted people and areas of the communities most at-risk to the hazard. The tools and mechanisms for dissemination and communication must be understood well by the target audience. The process of consultation and ownership of such tools and mechanisms must rest with the community. Some examples of dissemination and communication approaches in community-managed EWS are the use of community public broadcast system, community bells, use of flags and whistles.

#### **Response capacity**

Response capacity in the EWS refers to the actions taken after the different warnings have been disseminated and communicated to the most risk people. These actions are the level of individual, households and communities. The EWS must be clear on what the individual person, the entire household and the community leaders will do whenever the warning is given to them. To increase readiness, community members and leaders especially the most at-risk are well informed and educated about these actions or responses to the warning given.

#### Important principles of CM-EWS are:

Other than the four important components of the CM-EWS mentioned above, to make the EWS truly community-managed the CMDRR facilitator must ensure that the process of setting up the EWS follows these principles:

- 1. The EWS must be based on a genuine process of participatory disaster risk assessment.
- 2. It must balance the use of indigenous and scientific knowledge thereby increasing the knowledge of the community on the nature of the hazards.
- 3. The actual control and management is made by the community; community members are given assignments in the entire EWS components.
- 4. The EWS ensures that internal response capacities are identified and maximized so that people become more empowered to help themselves.
- 5. The choice of communication tools and mechanisms must be acceptable and effective at the community level.
Attachment 3. Handout



# Material for group activity: Steps to CM-EWS

**Participatory Disaster Risk Assessment** 

### **Hazard Characterization**

**Vulnerability Assessment** 

**Capacity Assessment** 

Identifying Existing Observation and Monitoring Systems for the Hazard

**Enhancing Observation and Monitoring Systems** 

Building agreements on warning procedures and responses

Establishing mechanisms for disseminating and communicating warning

**Simulation of EWS** 

**Regular updating and enhancement of the EWS** 

**Attachment 4. Reading Material** 

# Establishing Community-Managed Early Warning Systems<sup>1</sup>



Following the basic components and principles of community-managed EWS, the following are the steps in facilitating the community organizations in setting up their CM-EWS.

#### Participatory Disaster Risk Assessment

The first step in CM-EWS is the conduct of the PDRA. This was discussed in the previous modules and all the information and analysis of the risk will be considered in the design of the EWS. To review, the PDRA is composed of three assessments and each of this will provide the key components of the EWS.

#### Hazard Characterization

Hazard characterization is a crucial basis for the EWS. Hazard characteristics such as causes of the hazard, warning signs, forewarning, speed of onset, frequency and period of occurrence are the data that the community will use in designing the monitoring and warning procedures. For instance if the flood is caused by too much rain in the upstream areas, then a water level monitor in the main rivers upstream might be the monitoring mechanism to be employed. Another example would be, if the warning is about three hours after an increase in the water levels upstream, then that would the time element that will be considered in deciding what responses are needed to be done; what actions should be done within three hours.

#### Vulnerability Assessment

In vulnerability assessment, the information that will be provided to the CM-EWS is the number and location of the most at-risk people and properties in the communities. This information is useful in deciding what is the most effective communication channels to reach the most at risks in the most effective and efficient manner.

#### **Capacity Assessment**

Lastly the capacity assessment gives information about the internal response capacity of the at-risk individuals and the community in general. The CM-EWS will build upon these existing response capacities as well as inform the DRR plans on what capacities are still needed to be created or enhanced.

#### Identifying Existing Observation and Monitoring Systems for the Hazard

In this step, the community is guided in identifying existing observation or monitoring systems of the hazard if it exists at all. Most governments have existing observation and monitoring systems if the hazard is a significant event in the country. For example, most storms, typhoons and other weather disturbances have existing warning systems both in the country and sometimes regionally. Volcanic eruptions and tsunamis are also closely monitored by governments. The rationale for this step is to maximize linkages with existing initiatives on early warning so that the CM-EWS will be more institutionalized and sustainable. But in case there are no existing observations and monitoring systems in force in the country, the community can skip this step and proceed to the next step.

#### Creating\Enhancing Observation and Monitoring Systems

This step is directed at establishing a system that will regularly gather information about the hazard. This is an important system as this will be the basis for the warning procedures and responses of the targeted people to be warned. This system can be created or can be just an enhancement of the existing system. Important elements of this system are the equipment

<sup>&</sup>lt;sup>1</sup> Developed by Wilson John Barbon, DRR/CCA Specialist RCA, IIRR

to be used to observe and monitor and the people who will take charge of regular observation and monitoring. Examples of equipment used to observe and monitor include rain gauges, water level monitor, seismographs and the like. Some of this equipment requires technically skilled people but there are also technologies that the community can use and manage. The basis for deciding on what equipment to use in observing and monitoring is the information about the cause of the hazard and the hazard forces. The warning signs and forewarning is also important in finding out what to observe during the hazard event. Lastly the observation and monitoring system must be owned, operated and managed by the community members.

#### Building agreements on warning procedures and responses

Once the hazard observation and monitoring system is established, the next step is to agree on how the observations of the hazards will be interpreted as warning information. The community should also agree on the expected actions of the individual and the community for the warning information. An example of agreements is the "ready, get set and go" threestep warning procedures.

#### Establishing mechanisms for disseminating and communicating warning

The mechanisms for disseminating and communicating the warning is all about how to bring the warning to the targeted people and location of the community at the most efficient and effective way. The approach to be used must be acceptable and clear for the community members. Some of the communication tools that have worked in many communities are the use of community billboards, flags, sirens, bells and the like.

#### Simulation and Regular updating and enhancement of the CM-EWS

In this step, all the agreed warning procedures, responses and communication mechanisms are subjected to a test through simulation. Simulation can be done first as an announced practice meaning the community members are informed that simulation exercises will be conducted and they are expected to participate. The subsequent simulation exercises should be unannounced so that community members will be on their toes all the time. After every simulation exercise, the community should evaluate the systems and improve it to address issues that have been identified.



Attachment 5. Reading Material - Drought warning signs and signals

## Drought risk warning signs and signals used by Borana community in Southern Ethiopia<sup>1</sup>



Early warning system for drought hazard is one of the challenges that many people in dry zones face. Unlike other hazards, drought seems to have no early warning, given that the hazard slowly creeps into the communities. People only notice drought when its effects are already felt, like animals dying and wells drying up. In the Borana community of Ethiopia, the community has identified warning signs for drought. The signs are usually related to livestock which is an important asset of the community. Below are examples of these warning signs that the community can use to design their own community-managed drought early warning.

Description				
<b>Position of Stars</b> Stars are one of the prediction indictors used by traditional astronomers called Ayantu to determine the conditions of the upcoming year. According to them, there are seven major and different stars that are visible to the naked eye. The position of these stars change seasonally and the pattern of change is irregular depending on the season. Hence, this particular positioning of the stars along with the season is used to predict the occurrence of disaster risk as a result of drought, conflict or disease.				
<b>Intestine</b> The intestine of a freshly slaughtered animal shows the occurrence of disaster risk. The intestine has different blood vessels, the alignment of which tells the situation community will face in the future, mostly in a year's time. The reading is conducted by naturally gifted people known locally as uchuu.				
<b>Moon Condition</b> The condition of moon in a particular month also tells the Ayantu what is coming in the next year. The Ayantu mainly looks at the date of the month andW the season in which the moon is half and full. If they do not coincide with the normal patterns known to the Ayantu, it is a sign of something strange happening to the community. However, the Ayantu clearly predicts the occurrence of a specific hazard by combining the results of the moon with other prediction indicators.				
<b>Sunrise</b> Sunrise is also used as a prediction indictor along with its position within a particular season. For instance, the sun rises south east during rainy season and changes position regularly and proportionally across each month until it reaches north east during dry season and repeats the same pattern to the south if it is a normal season. However, if the sun stays longer on the north east it is a sign of prolonged dry season and failure of rain. This prediction only works for drought.				

<sup>1</sup> Contributed by Moges Bekele, DRR Adviser, Cordaid

Indicator	Description
Huncator Carlos	<b>Ring Tail</b> Animal behavior is another prediction indicator identified by the community. If a cow sleeps forming a ring on its tail and puts it on its leg, there will be conflict in three months' time. Animals form this ring as a sign of running and migration to avoid the conflict.
	<b>Bulls avoiding mating</b> A bull avoiding others and grazing alone even in mating season is a sign of drought coming or failure of the rainy season to come. Bulls avoid mating fearing that the newly-born calves will die due to the drought.
	Animal sleeping conditions Cattles usually sleep scattered when the coming season is normal or good. However, when they sleep together, congested near the gate, it means the condition is bad and most of the animals will die from drought.
AT THE	<b>Cattles licking each other's neck</b> Cattles licking each other's neck is another indicator of death of cattle as a result of drought. On the other hand, cows licking each other's shoulders indicate a good season coming.
the second	<b>Cattle laying down while sleeping</b> Under normal conditions a cattle will not lay down while sleeping. But if cattle lay down while sleeping as it is seen on this drawing, it is a sign of drought occurring in the upcoming year.
Contraction of the second seco	<b>Cattle avoiding good pasture</b> Cattle avoiding good pasture and preferring to graze in the opposite direction indicates the likelihood of a conflict in the direction of the good pasture, and migration from the opposite direction.

# 2 Sub 2.4



# FACILITATING COMMUNITY SIMULATIONS AND DRILLS FOR PREPAREDNESS



Duration: 1 hour 30 minutes

# Description

For communities to be ready to respond to the onset of hazards, they need to come up with contingency plans and early warning systems (EWS). Contingency plans and the EWS are not merely written documents but these need also to be tested, evaluated, adapted and updated regularly. This will ensure that people and the community will always be prepared for the hazards which come in the most unpredictable ways. Community simulations and drills are useful tools that will facilitate in evaluating, testing and updating the contingency plans and the EWS. In this session the participants will be guided through the basic understanding of what community simulations and drills are, and how these can be facilitated at the community level.

# **Learning Objectives**

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

- 1. Explain the basic concepts on community simulations and drills for contingency plans,
- 2. Demonstrate how to facilitate communities for simulation and drills of contingency plans.

#### Learning aids and materials

- Stopwatch
- Newsprint
- Markers
- Masking tape
- Flip chart
- Colored flash cards
- Attachment 1. Community simulations and drills for preparedness

#### Procedure

#### **Activity : Team Games**

- 1. Advice the participants that this game requires team work and the goal of the team is to finish a series of activities in the fastest time.
- 2. Use a stop watch to record the time spent for the team to finish their task.
- 3. The team will be given three rounds to get their fastest time.
- 4. The team will be asked to arrange themselves in a big circle according to their birthdays in a clockwise direction. After arranging themselves they will have to say in unison the phrase "community managed disaster risk reduction".
- 5. The participants will have to begin from their own seats in the conference room and only when they hear the signal GO will they start arranging themselves.
- 6. After giving the instructions, give the team five minutes to talk among themselves, get to know each other's birthdays as well as to strategize.
- 7. After the team meeting, ask them to get back to their seats. When everybody is seated, give the signal GO and start the stopwatch.
- 8. Note the time from the signal GO up to the time the team has said "community managed disaster risk reduction". Note this time on a board for everybody to see.
- 9. Ask the participants if that is the best time they can achieve. Give them three minutes to hold a team meeting before allowing them to go back to their seats to start the second round.
- 10. After round two, again note the time on the board. Then repeat the process up to the third round. But before the third round give them two minutes for a team meeting.
- 11. It is expected that after three rounds, the team will have lowered the time taken.
- 12. The participants are given a different task in each round. Another task may be to arrange themselves alphabetically, clockwise still or counterclockwise, according to the first names of their mothers. After the arranging themselves, they will again say in unison "community managed disaster risk reduction".
- 13. After the exercise, process their experience by using the following guide questions:
  - How do you feel about your team's performance?
  - What are the factors that contributed to your time improvement or non-improvement?
  - How were the members of your team?
  - What are some of the difficulties you have encountered?
  - What can you say about this exercise vis-a-vis disaster risk reduction?
- 14. End the discussion, by saying that the key idea in this exercise is that "practice makes perfect". Elaborate on these points:
  - The contingency plans and early warning systems are all systems and procedures that the individual and the community will take during the hazard to reduce loss of lives and properties.
  - It is important that these systems and procedures are tested and evaluated through simulation and drills.
  - In this exercise, "GO" is the signal for hazard that indicates the execution of the instructions in the fastest time possible.



15. Present the key concepts and steps in conducting community simulations and drills using the attached reading materials.

# **Synthesis**

End this session by emphasizing the following points:

- Simulations and drills are important tools to evaluate and ensure that the contingency plan is understood well, is effective and efficiently implemented.
- Simulations are more like tabletop exercises which seek to evaluate skills on coordination and decision-making.
- Drills on the other hand are actual physical community mobilizations meant to evaluate the skills and responses of people as stipulated in the contingency plans.
- Simulations and drills have three major elements and these are: the participants, the evaluators and the scenario including location and time.

## **Suggested reading**

Pan American Health Organization

Guidelines for Developing Emergency Simulations and Drills Washington, D.C.: PAHO, © 2011



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**Attachment 1. Reading Material** 

## Community simulations and drills for preparedness<sup>1</sup>



Community simulations and drills are useful tools that will help in evaluating, testing and updating the contingency plans and the community's early warning systems.

Simulations and drills are two distinct tools. A simulation is more of an exercise for decision making based on a given information or scenario. In a simulation exercise, the participants are given a task or role that is as much as possible the same role he/she plays in an actual hazard situation. The scenario and information given to the participants are representations of the actual hazard event experienced in the past.

Simulation exercises are best used for the community organization that will take the lead in the implementation and activation of the contingency plan. Regular conduct of simulation exercises can help increase the confidence of community leaders as well as stimulate critical thinking and situational analysis before decision-making. Simulations are a good tool to see the coordination and analysis skills of the key people taking charge of the various systems and procedures stipulated in the contingency plan.

The three basic elements of a simulation exercise are:

- The participants. These are people who will be receiving the scenarios and making decisions. In the case of the community's contingency plans, this will be the community organizations or leaders tasked to perform the systems and procedures of the plan. If the simulation is for the EWS, the participants would be the person assigned in the observation station and the person assigned at the communication and dissemination system.
- The observer. These are the people who will not participate in the simulation but will keenly observe the participants especially how they handle the information and make decisions. The observer should take down notes while the simulation is going on. The use of a video camera if available can also be a useful recording tool for later playback and will let the participants know how they have performed their simulated discussions and decision making.
- The scenario. It is conceived before the actual simulation. The scenario is a set of assumptions and information given to the participants. The scenario must be related to the contingency plan and must be targeted to a specific decision making area.

Community drills on the other hand are practical and physical exercises which will allow the community to perform the actions required during the occurence of a hazard. Drills are actual mobilization of people, response teams and resources such as equipment. These actions are those stipulated in the contingency plans and community early warning system. Drills are useful in evaluating and enhancing the skills of people in mobilization, tools that the community have to use during the hazard and the overall understanding of the community on what actions to take during the hazard. Common examples of drills is the fire drill where the community simulates the actions of the firefighters' response to a fire in the community as well as the actions of the people in evacuating properties and people out of the danger of fire. Other examples would be the earthquake and evacuation drills.

A community drill also has the same components as the simulation exercises and these are

<sup>&</sup>lt;sup>1</sup> Prepared by: Wilson John Barbon DRR/CCA Specialist RCA, IIRR

the participants, the observers and the scenario. A community drill can be an announced one, where the community is informed of the schedule and the scenario for it.

It can also be an unannounced drill where the community is not informed about it or is informed only at the middle or end of the exercise. Unannounced drills are useful in testing and evaluating early warning systems. The purpose of unannounced drills is to test the targeted participants' state of preparedness to act.

At end of each simulation and drills, the experience must be assessed to identify the strengths and gaps of the participants. Recommendations for improvements should be identified and implemented the soonest possible so that in the next scheduled simulations and drills there will be improvements.

# GUIDED FIELD PRACTICUM: COMMUNITY PDRA AND PLANNING



# Duration: 3 hours

# Description

The Guided Field Practicum (GFP) provides the participants with an opportunity to work with a community and engage them in a participatory assessment of hazards, vulnerabilities, capacities, and risk analysis. The practicum can also be used to help the villagers to develop their disaster risk reduction plans.

The GFP is designed to be a mutual learning process. While it gives the participants the chance to interact with the villagers and observe them in their daily activities, it also aims to provide them the experience in assessing their situation and to plan for DRR using the CMDRR framework.

# **Learning Objectives**

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

- 1. Engage the community members in a participatory disaster risk assessment as basis for their development of disaster risk reduction measures,
- 2. Facilitate the community to develop action plans for DRR measures,
- 3. Draw out lessons learned from their field experience through reflection and evaluation of their team performance in facilitating participatory disaster risk assessment.



#### Learning aids and materials

- Newsprint
- Markers
- Masking tape
- Flip chart
- Colored flash cards
- Attachment 1. Handout Preparing the field site
- Attachment 2. Handout Seven practical considerations for Guided Field Practicum
- Attachment 3. Handout Guide for team planning and setting team performance evaluation criteria
  - Attachment 4. Sequencing of PLA tools for PDRA and Matrix of PLA tools for PDRA
- Attachment 5. Handout PDRA Field Report Outline

#### Procedure

#### **Activity 1. Orientation**

- 1. Give orientation to participants on the learning objectives, procedures and set of activities for the field practicum.
- 2. Emphasize that there would be a shift in roles: the training participants would perform the "facilitator" role while the training team would serve as "guide" during the field practicum.
- 3. Inform the participants about the prior arrangement of the Guided Field Practicum with the community.

#### Note to facilitator



- 4. Discuss with the participants the groupings for the GFP.
- 5. Discuss with the participants the following seven important considerations of the GFP (Attachment 2):
  - Clarity of purpose
  - Limitations
  - Clarity of activity
  - Seasonal calendar and household daily routines
  - Respect of the people's culture
  - Principle of accountability
  - Background about the field site
  - Self-organization



- 6. Discuss with the participants the guide for team planning and setting team performance evaluation criteria (Attachment 3):
  - Divide roles/functions of team members.
  - Plan for the activities of the GFP.
  - Determine criteria for monitoring and evaluating the team performance.

#### Activity 2. Group work on sequencing of PDRA tools (1 hour)

1. Review the risk formula:

Disaster Risk =  $\frac{H \times V}{C}$ 

- 2. Ask the participants the following questions:
  - When assessing disaster risk, why is it necessary to assess the three variables in the order of hazard, vulnerability and capacity assessment?
  - What information should be generated during hazard, vulnerability and capacity assessments?
  - How are PRA tools selected in order to conduct the assessment in a systematic manner?
- 3. Divide the participants into groups. Using Attachments 3 and 4 as guide, ask the participants to sequence the tools they have selected for hazard, vulnerability and capacity assessment.
- 4. Ask each group to present to the plenary their selected and sequenced tools.
- 5. Comment on the report of each group and allow participants to ask questions for clarification.
- 6. Wrap up the activity by providing the following learning points:
  - The proper selection and sequencing of tools is important for systematic assessment of hazards, vulnerability and capacity.
  - It is important to also note that some tools such as mapping, and story telling could be used for all the three variables.
  - The process of disaster risk assessment should begin with hazard assessment since the vulnerability and capacity assessment will be based on a specific hazard.
  - Since actual application of tools at community level is challenging, it is important after selection and sequencing for participants to demonstrate their use in class before actual field practicum.
  - Distribute Attachment 1 and 5.

## **Synthesis**

#### Close the orientation by stressing:

We go to the village with: An open, not an empty mind, A humble heart, a learning mode of sharing and mutual respect.

The groups should now proceed to team planning to prepare their plan for field practicum using the guide for team planning discussed earlier. At least one member of the training team should sit down with the group to guide them in their planning.



#### Attachment 1. Handout - Preparing the field site

- with of land travely
- 1. Site selection based on the following considerations:
  - Purpose of the field practicum
  - Security of the place
  - Accessibility to the training venue (about an hour worth of land travel)
  - Community is currently or was a project site of one of the partner organizations
  - Presence of a village organization (that is generally accepted by the villagers) with a community project (either initiated by the development organization partner or by the villagers themselves) existing for more than a year. The community organization is willing to accept the participants and be engaged in the processes involved in the practicum.
  - Community seasonal calendar that assists in guiding the process timings
- 2. Gathering of background documents on the proposed site including basic community profile with location maps. Demographic information from secondary sources especially government agencies give credible information.
- 3. Visit to the field site.

Purpose of the visit:

- a. To get community sanctions for the field practicum of the CMDRR training.
- b. To make preliminary plan with the village leaders for the conduct of the training.

Participatory Disaster Risk Assessment (PDRA) using PLA tools in the community:

- Clarify objectives of the practicum & leveling off expectations.
- Introduce the set of activities involved in the fieldwork.
- Agree on the dates and time.
- Identify stakeholders in the village.
- Arrange for the participation of the representatives of the identified stakeholders (selection process, number of representatives). Ensure that women and men – parents, youth and children - are duly represented as the stakeholders.
- Identify focal locations for conduct of key activities.
- Prepare and arrange the logistics for the field visit.
- 4. Prepare materials needed.

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Budget allocation for fieldwork arrangement

#### Attachment 2. Handout - Seven Practical Considerations for a Guided Field Practicum

"Attitudes and Behaviors More than Methods and Tools"

#### 1. Clarity of purpose

NOT	RATHER		
To learn everything	To learn with them		
To solve their problems To criticize or give advice	To facilitate participatory community risk assessment process		
To promise help			
<ul> <li>Humble</li> <li>Accept out limitations as external entities</li> <li>And for temporary presence</li> </ul>			

#### 2. Limitations

Training Contest Vs. Ideal Situation					
Simulation - not our own areas of operation	Own work situation				
First interaction with the villagers	Relationship has been established				
Language barrier	Facility of local language				
Time constraints	More time				

#### 3. Clarity of activity

NOT	RATHER		
An excursion	Field work		
A sightseeing			
<ul> <li>Readiness and Flexibility</li> <li>Accept the Limitations of the Place\Village (Not expect same kind of food and comfort we have at the hotel)</li> <li>Humble</li> </ul>			

- 4. Respect for the people's culture
- 5. Principles of accountability, responsibility and commitment to do our best to be true to the spirit of the guided field practicum and provide the villagers a copy of the field report.
- 6. Background about the field site

Provide basic background information about the site for the field practicum such as geography, population, leadership structure, existing organizations, and the like.

#### 7. Self-organization:

- Preparation of the field site
  - Getting community sanctions
  - Accommodations

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- Formation of teams and planning please see Attachment 7 (Guide for the team planning and setting team performance criteria).
- Prepare a schedule of activities based on the 'process flow' (Attachment 4) and tentative schedule (Attachment 5) of the field practicum proper.
- What to bring:
  - Provisions medical kit, food, bottled water, vehicles
  - Background materials Please refer to the appendices on background materials about the village site.

#### Attachment 3. Handout

# Guide for the team planning and setting team performance evaluation criteria



- 1. Select a team leader, reporter, service persons, sub-team facilitators and sub-team reporters:
  - Team leader provides lead role in enabling the team to perform its tasks and develop group solidarity effectively and efficiently.
  - Reporter in coordination with the team leader and other members of the team, ensures that the final report of the Guided Field Practicum (GFP) is compiled.
  - Service person takes care of needed materials/ learning aids, and the systematic/ organized safekeeping of the outputs of the villagers from the field activities to be submitted to the course coordinator on a specified date.
  - Sub-team facilitators responsible for the preparation and actual facilitation of small group exercises in the village.
  - Sub-team reporter responsible for the documentation of the outputs of the small group exercises.
- 2. Given the timeframe and list of activities in the daily schedule in the field, plan how you would go about with the introduction, building rapport, gathering and documenting the data indicated in the expected output for the GFP report.
- 3. Considering the timeframe and the preliminary profile of the community you are visiting, prepare a list of PLA tools that your group will use in order to gather the necessary information and analysis for the PDRA.
- 4. Identify the tasks, person/s responsible, and the materials needed.

NOTE: Assign facilitators according to the level of comfort or familiarity of the person/s to specific PLA tools.

Be reminded of the lessons from past sessions on contact work and stakeholder analysis, community immersion, maintaining purposeful relationship, disaster risk assessment (4 levels), appropriate participatory tools, and DRR planning.

5. Brainstorm and agree on the criteria for monitoring and evaluating the team performance.

#### Attachment 4. Handout - Sequencing of PLA tools for PDRA and Matrix of PLA tools for PDRA



1. Sequencing of tools for Hazard assessment

The tools selection and sequencing will facilitate systematic assessment of hazard. The following are the steps in hazard assessment:

- a. Identification assessment of disaster risk is hazard specific although many hazards interact and in some cases act as a trigger for another hazard. The assessment should begin with the identification of prevalent hazards in the community.
- b. Prioritization After the community has identified the prevalent hazards, it is necessary to identify the most important ones for further assessment. At this stage, the community develops the criteria to be used in comparing and ranking the various hazards. Based on the ranking, the most important ones are selected for further analysis.
- c. Characterization The prioritized hazards are analyzed further to establish their characteristics, such as their causes, effects, warning signs and signals, force, period of occurrence, duration and frequency.
- 2. Sequencing of tools for Vulnerability assessment

Just like in hazard assessment, the vulnerability assessment that follows also needs to be done systematically. The steps are:

- a. Identification of the elements at risk in relation to hazard. It is important to identify both human and non-human elements at risk.
- b. For the human elements (different categories such as adult males, adult females, Female youth, Male youth, Under 5's, people with disabilities) identify the various categories of populations at risk and establish their levels of vulnerability.
- c. Establish the proximity of element at risk to the hazard and rank them to the degree of high, medium and low vulnerable based on their location.
- 3. Sequencing of tools for Capacity assessment

Capacity assessment is the third step in participatory risk assessment. It should also be done in a systematic manner so as to make it easier for communities to identify the gaps that need to be addressed for DRR. The following are the proposed steps:

- a. Identification of existing capacities to survive and bounce back with the hazard.
- b. Establishing the capacity needed by the individual element at risk and community to build resiliency.
- c. Identification of capacity gaps.

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#### Attachment 5. Handout - PDRA Field Report Outline

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Each group is expected to prepare and compile its field report. The main findings of the PDRA and DRR measures will be shared to all the training participants on plenary.

The following is the outline of the report:

#### I. Background

This part summarizes general information about the village, the specific group you dealt with etc.

#### II. Objective of the field practicum

- To familiarize the participants with sample tools and practical aspects of CMDRR process and approach,
- To facilitate development of community DRR action plans (contingency and development plan), and
- To have a field experience of CMDRR and learn from the community members of village.

#### III. Methodology/tools used in the assessment

Describe how the team actually conducted the assessment

#### IV. Output of the PDRA

- 4.1. General information
- 4.2. Hazard assessment
- 4.3. Vulnerability assessment
- 4.4. Capacity assessment
- 4.5. Risk analysis with sets of risk reduction measures
- 4.6. DRR Plans: Community Development Plan and Contingency Plan

#### V. Challenges faced and how they were addressed

#### VI. Perceptions about the exercise

- 6.1. Perception of the community about the exercise
- 6.2. Perception of the training participants about the exercise

#### **VII. Conclusion and recommendations**

#### **VIII. Annexes**

- 8.1. Name, sex and age of community participated in the group
- 8.2. Name and sex of facilitators

#### NB.

- 1. The report of each group should be submitted by soft copy
- 2. The groups will present the PDRA results to the plenary of the training course after the field assessment
- 3. After the presentations and feedback from the other participants, finalize the PDRA report and submit this to the course facilitator for proper turn-over to the community where the field practicum was conducted.
- 4. It is up to the group leader to make sure that:
  - All required materials for the practicum are collected flip charts, markers, masking tapes, etc);
  - All the group members read the tools required for the field exercise;
  - The team meets at the end of every practicum day for reflection and compiling the outputs.

# SUB MODULE 3

# ORGANIZATIONAL MECHANISMS AT THE COMMUNITY LEVEL

- Organizing the Implementation of CMDRR Plans
- Strengthening Community Organizations for DRR





# ORGANIZING THE IMPLEMENTATION OF CMDRR PLANS



# Duration: 2 hours 30 minutes

# Description

This session will focus on the key aspects in the implementation of the CMDRR plans discussed in the previous sessions. It will look into the important principles for an effective implementation of plans. The session will also highlight the required organizational structures that will realize these implementation principles.

# **Learning Objectives**

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

- 1. Explain the principles that will contribute to the successful implementation of the CMDRR plans,
- 2. Explain the importance of organizing the community in the implementation of CMDRR plans, and
- 3. Present examples of structures and processes of community organizations for CMDRR.

#### Learning aids and materials

- Flip chart
- Masking tapes
- 100 pcs. of meta/manila cards (assorted colors and shapes)
- Attachment 1. Handout Case of CMDRR in Indonesia
- Attachment 2. Handout Other Examples of CMDRR Organizational Structures, Processes and Rules
- Attachment 3. Handout Phases and roles in facilitating community DRR

#### Activity 1. Dream house building to illustrate a community-managed project (1 hour)

- Before the actual session, find somebody who, on cue, will enter the room and smash the houses that the participants will build. Make sure that the "destroyer" is not known to the participants, preferably not in any way related to the training course. Brief him/her of the role he/she will play and the timing of his entrance. Explain that all houses must be destroyed and afterward, he/she should run away quickly before any of the participants could get hold of him. Tell him that after the exercise, he will be invited to meet with the participants.
- 2. Divide the participants into four groups and give them the following instructions:
  - Using the given materials (10 pieces of A5 size cards and one meter of masking tape for each group), they are to build a "dream house" in 10 minutes.
  - The participants must build the house without talking to each other, using only sign language to communicate with each other.
- 3. After the houses have been built, ask the participants the following questions, pausing after each question to allow for reflection, and take a couple of responses.
  - Do you like the house? Is this your dream house?
  - If given more materials, would you build a better house?
  - What were some of the challenges faced when building the house?
- 4. Give the participants 15 minutes more to either improve their dream house or build another one. Inform them that they can now use as much materials as they want and communicate to each other using their voice.



- 5. Request the participants to now place the completed houses in front of the room next to each other. Ask them the following, pausing after each question to allow for reflection: Are you now happy with your house? Can you call it your dream house? Get a couple of responses to the first question before going to the next.
- 6. While the participants are still answering the second question, the "destroyer" should walk in and trample on all the houses, then quickly run away before anyone can catch him.
- 7. Share in the participants' dismay and shock but remain calm.

#### Note to facilitator

- Be sure to let your co-facilitators restrain any violent responses, by saying something like, "Let me follow up with the training host and find out what the problem is..."
- At this point, observe how the participants react differently, some trying to grab the destroyer, others speechless, others trying to fix their destroyed houses, others visibly angry, etc. Remain calm and silent for a while (2-3 minutes) to allow the participants to react to the hazard that just occurred.



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- 8. Help the participants recover from the shock by processing their feelings:
  - Ask them how they felt. Take as many responses as possible.
  - Explain that it was you who asked that person to destroy their houses and apologize for that. Explain that it was part of the learning process and the participants must not harbor bad feelings towards you or the "destroyer".
- 9. Wrap up the activity by explaining that the house represents a community-managed project. Explain that the exercise will help them work on the other activities in the session.

#### Activity 2: Important principles in Implementing CMDRR plans (One hour)

- 1. Ask the participants to relate the house building exercise to what they have learned so far. (Five minutes)
- 2. Ask the participants to work in their groups (dream house-building) and identify the principles or guidelines that need to be in place or that need to be done that are important for implementation of the CMDRR plans and why. (20 minutes)
- 3. Invite them to share in plenary and ask a member of the Responsible Team to note the points on a flip chart.
- 4. Highlight the following points in the plenary discussions
  - Importance of having a plan that all agree on and understand
  - Need to have a leader
  - Need to distribute tasks and using participatory processes
  - Need to communicate and coordinate
  - Need to quickly recover from a hazard or disaster event
  - Need to reflect on the damage and its causes
  - Need to learn from others (e.g. if they are doing better, learn from them)
  - Need to have a strong organization, which has a clear and focused vision and mission
  - Need for resource mobilization
  - Need for systems to ensure efficient and effective use of resources
  - Importance of time element
- 5. Close the discussions by explaining to the participants that to implement these principles, the community needs to set up a minimum organizational structure and processe. These structure and processe will be safeguarded and carried on by a CMDRR organization mandated by the community.

#### Activity 3: Organizing structures and systems for CMDRR plan implementation (40 minutes)

- 1. For this activity, the participants will be guided through a case analysis exercise.
- 2. Divide the participants into small groups of five to six members. Distribute to the participants Handout: 1 case of CMDRR in Indonesia. Allow the participants to study the handout and give them time to formulate their answers to the analysis questions: a. What is the form of organization that will lead in CMDRR implementation?



- b. What are the organizational structures that should be in place to ensure CMDRR implementation?
- c. What are the organizational processes and rules that should be adopted?
- 3. After the discussion (10-15 minutes), let the group write in flip-charts their answers and have these presented to the plenary.
- 4. Summarize the key points that came out from the analysis of the case study.
- 5. Explain to the participants other examples of organizational structures, processes and rules that will be facilitated during the CMDRR implementation. Distribute Handout 2: Other Examples CMDRR Organizational Structures, Processes and Rules.

#### Activity 4: Roles of the CMDRR Organization and the CMDRR Facilitator (40 minutes)

- 1. In this activity, use the "world café" methodology. Get two sheets of blank flip charts and place these in two separate areas in the room. Write on the first flip-chart "Roles of the Community Organization" and in the second flip-chart "Roles of the CMDRR External Facilitator".
- 2. Ask the participants to write on the flip charts their individual answers as to what they think are the roles of the organization and those of the external facilitator. Encourage the participants to also write about issues and the confusion and misconceptions they had about the roles.
- 3. After some time spent on writing, read the key points written and get clarifications from the participants.
- 4. Summarize the discussions by explaining the Handout 3: Phases and Roles of Community and the CMDRR Facilitator

## Synthesis (10 minutes)

End the session by presenting the following synthesis points:

- Implementing the different CMDRR measures and the action plans requires the cooperation, unity and involvement of different members of the community.
- The success of CMDRR requires the organizing of the structures, policies and processes that will bring about cooperation, effectiveness and efficiency of the implementation of CMDRR plans.
- The role of the CMDRR facilitator is to prepare the community by organizing them and providing them support until they own the CMDRR process.

#### **Suggested readings**

- Organizational Performance and Change Management Workshop Proceedings, October 1-3, 1997; IIRR
- Some notes from the Workshop on Evaluating Capacity Development in Research and Development Organizations;
- Chapter on Coalition from: A Guide for Grassroots Leaders-Organizing, Si Kah.





- "Organized Citizens' Role in Disaster Response: The Mt. Pinatubo" by Ric Guiao in the Philippine Reader on Disaster Management, Citizens Disaster Response Center, Manila, 1996.
- "Defying Convention" and Maintaining Families in Drought" in Defeating Disasters: Ideas for Action, pp.29-30.
- Community Organizing for Disaster Management by Emmanuel M. Luna, Philippine National Red Cross, 1994
- United Nations Environment programme, APPEL (Awareness and preparedness for emergencies at local level: go to http://www.unep.org/ Put APPEL in the search box.

Attachment 1. Handout - Case of CMDRR in Indonesia

# Excerpts from Cordia, Caritas-Medan Community Managed Disaster Risk Reduction Program Strategy Paper<sup>1</sup>



#### Unit of Analysis and action

What would be our unit of analysis and action in the community --- a village (Desa), Kelurahan, a self-help group, a local government unit or a neighborhood community?

Our unit of analysis will be a DESA (village in rural areas) and KELURAHAN (village in urban areas)

#### Form and functions of community organization

What forms of community organization we think can operate and manage CMDRR process at communities which can benefit the poor?

Desa-based / kelurahan-based multi-stakeholder organization will be formed. This organization will have representatives coming from different stakeholders such as: Community leaders i.e. traditional / custom leaders, local government i.e. kepala desa/lurah; skilled persons, private / business group, school i.e. teachers; church and mosque, youth and other identified stakeholders of the community. The organization will be represented by both men and women. It is non-partisan/non-political party. The multi stakeholder organization will have norms and by-laws on how to operate; its programs and activities will be based on the action plan that it will develop based on the results of the PDRA.

The multi-stakeholder organization will manage/supervise CMDRR activities, and will assume the following specific roles and functions:

- Key actors of CMDRR who will assess, implement, plan, monitor, and evaluate CMDRR activities (perform PDRA, facilitate Community Action Planning, develop Participatory planning monitoring evaluation and learning or PPMEL)
- Self-help motivator and solidarity builder providing forum to the community
- Mediator/Intermediary organization between Cordia and the community
- Human resource developer i.e. develop resource persons from the community
- Network builder that links up with other organizations (both internal/local and external)
- Promoter of DRR that shares DRR concepts, insights/lessons, framework, benefits to the whole community and others.
- Resource mobilizer: human, material, financial

#### Standard of community participation

In a selected unit of analysis and action, what is our satisfactory standard of community / stakeholders participation?

- Interactive participation happens where men and women equally participate and decisions are agreed upon after discussion.
- In all CMDRR activities, all community are encouraged to participate and stakeholder representation is ensured.

<sup>1</sup>This strategy paper was facilitated by IIRR with the Cordia Medan CMDRR project team in 20

The community and other stakeholders participate by sharing ideas and thoughts, resources in the form of time / availability and involvement in the whole CMDDR process through PPMEL.

#### Activity to foster self-help and cooperative attitude

What kind of activity integration would reduce dependence (relief rehabilitation) and individualistic attitude among the community, enhance values of cooperation with each other and foster volunteerism?

- Bring motivation, foundation building and self-help into community discussions.
- Instill spirit of volunteerism by providing actual community examples.
- Orient on periodic values through discussions, seminars.

#### Integration of gender

How are we going to integrate gender in the whole process?

- Deliberately include discussion of gender in community meetings and other DRR activities.
- Ensure equal participation of men and women.
- Ensure involvement of women in decision-making.
- Have gender disaggregated data in PDRA, gender-sensitive community action plan and monitoring and evaluation system
- Set gender-sensitive indicators in the monitoring and evaluation.

#### Support provisions

What kind of support, resources would we provide (through partner organizations) to develop capacities of community organization and implementation of Community DRR action plan?

- Capacity-building based on their identified needs
- Facilitating fundraising efforts and linkage building with other potential resource and technical support providers to implement CMDRR community action plans.
- Other technical support related to other identified sectors (health, livelihood, agriculture, participatory local governance etc,) will be provided by Cordia's other ongoing and future projects.

#### Support withdrawal/exit approach

What kind of support, resources would we provide (through partner organizations) to develop capacities of community organization and implementation of Community DRR action plan?

- Organizational development will be deliberately part of the CMDRR action plan
- Self-reflection should be a continuous process in learning and action in the multistakeholder organization
- Participatory local governance should be integrated.

#### Sustainability of the process

What scenarios/ state do we want to see about sustainability of community organization which can run the process when our support has been withdrawn?

- Holding CMDRR capacities like: conducting PDRA, developing community DRR action plan, implementing DRR activities, and facilitating participatory monitoring and evaluation; emergency preparedness and response.
- Apply multi-stakeholder participation process
- Facilitate CMDRR experience and learning in the community e.g. Inter-community exposure
- Document CMDRR experience for sharing
- Generate resources to fund own CMDRR project
- Manage implementing one pilot project and share CMDRR experience and learning to other organizations
- Develop own vision, mission, by-laws and standard operating procedures
- Implement systems and procedures like financial, management, PPMEL including tools and manuals.
- Demonstrate spirit of volunteerism, cooperation, responsibility, accountability, transparency, and solidarity.

#### Principles in facilitating sustainability of community organization and the process

What principles do we follow and use in facilitating community organization to be sustainable?

- Self-reliance by avoiding dependence; give ownership of the process to the community
- Transparency on the role of Cordia as a facilitator and capacity builder
- Accountability

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- Promotion of local knowledge and skills
- Action/reflection sharing with the community
- Participation as both means and goal



2 Sub 3.1

# Other Examples of CMDRR Organizational Structures, Processes and Rules

Barangay (Village) Disaster Risk Reduction Management Committee (BDRRMC) of the Philippines<sup>2</sup>



<sup>&</sup>lt;sup>2</sup> Sample from CMDRR project in Rosario Cavite of IIRR supported by UMCOR (United Methodist Committee on Relief)

#### Barangay Disaster Risk Reduction and Management Committee (BDRRMC)

The BDRRMC is a local government organization that assists in preparing communities to mitigate impacts of hazard events, providing them the needed emergency response.

# **Roles and Functions of BDRRMC<sup>3</sup>**

Facilitate Participatory Disaster and Climate Risk Assessment and Analysis, Participatory DRRM Action Planning, Participatory Monitoring, Evaluation and Learning plans, including Contingency Planning

Develop and implement a comprehensive Local DRRM Plan according to the national policies and guidelines of the NDRRMC (National Disaster Risk Reduction and Management Council)

Prepare and submit barangay (village) DRRM plan to the barangay council for programming of the barangay DRRM fund according to the participatory Disaster and Climate Risk Assessment and Analysis.

Advocate for inclusion of DRRM activities and plans in the barangay council monthly meeting

Organize and conduct training sessions, orientation on DRRM at the local level.

Share information to increase awareness level of the community on DRRM.

Conduct capacity assessment of the village DRRM Committee to develop their capacities.

Consolidate local data and information including community hazards, level of vulnerability, information on climate change and update local risk map.

Maintain a list, equipment, directory and location of critical establishments and their capacities, such as hospitals and evacuation centers.

Manage impacts of hazard events and respond to provide basic needs such as food, livelihood and medical supplies for women and children, in a more effective way.

Establish and sustain an effective multi-hazard Early Warning System that will provide warning and necessary information about the hazards to the community.

<sup>&</sup>lt;sup>2</sup> Developed within IIRR's CMDRR project in Rosario, Cavite, being supported by UMCOR (United Methodist Committee on Relief)

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	Organization of the risk reduction group	Group formation or strengthening Facilitating Linkages Phasing Over Consulting		Group growth	Community Disaster Risk Reduction Organization		
uction	Planning of the risk reduction measures	Defining risk reduction measures (Facilitating, training, providing material services, linking up for resource mobilization)		Dicactar Dick		Measures (OD, development plan and contigency) identified (Defining roles, responsibilities, schedules, inputs) Project proposal development implementing Project	Disaster Risk Reduction Project
isaster Risk Red	Further analysis of the priority community disaster risk	Prioritizing activities (Engaging the community for more specifics)			Identifying	common needs and interests	Disaster Risk Reduction Prioritizing
Phases and Roles in Facilitating Community Managed Di	Feedback / validation of results of community disaster risk analysis	Facilitating community consensus on their situation (Validating Issues)				Disaster Risk Reduction Consensus Building	
	Identification of natural leaders or "progressive members"	Facilitating the selection of leaders and members (Handing over the stick)				Leading and guiding (leadership formation) Recognition of natural leaders and members	Selecting leaders and potential members
	Identification of priority group/s	Identifying the most at risk individuals in the community (involving the sections of the community that are at risk)				Forming Interest group Self awareness Gender awareness	Selecting the group most at risk
	Facilitating Community Risk Assessment	Facilitating community analysis of risk (HVC Assessment) Awareness building; organizing				Coming together, sharing knowledge identifying risk, hazard, vulnerability and capacity (problem analysis)	Community Risk Assessment & need analysis
	Site entry and rapport building	Entry immersion and rapport building Learning Clarifying roles and agenda				Request Assistance Family Coping Community on going efforts Accepting Initiating	Trust building
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#### Attachment 3. Handout

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### STRENGTHENING COMMUNITY ORGANIZATIONS FOR DRR



### Duration: 2 hours 30 minutes

### Description

Sustainability of CMDRR lies in the capacity of the organizations that play a key role in the management of DRR at the community level. The measure of success of CMDRR is whether or not a robust community organization has been developed to take on the implementation of the DRR program. This requires systematic and continuous capacity building. This process depends on the capacity of the support organizations, particularly the government and non-government organizations that provide capacity building activities to the communities. Support organizations should be similarly equipped with required capacities to strengthen community organizations for DRR.

This session emphasizes the sustainability of CMDRR and the various ways by which systematic capacity building on CMDRR of the community organizations can be done.

### **Learning Objectives**

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

- 1. Value the sustainability aspects of CMDRR.
- 2. Identify capacity areas of community organizations working on DRR.
- 3. Identify capacity gaps of community organizations towards sustaining DRR.
- 4. List various capacity building activities that can be implemented to strengthen organizations for CMDRR.



### Learning aids and materials

- Metacards or any A5 cards in five colors
- Masking tape
- Hexagons, 3 pieces per participant
- Poster papers
- Markers
- Attachment 1. Reading Materials Self-sustainability in CMDRR
- Attachment 2. Selected Quotations and Reflections on Endurance and Sustainability
- Attachment 3. Handout Sample Human Figure
- Attachment 4. Handout SWOT Analysis
- Attachment 5. Handout Capacity Development Definition and Process
- Attachment 6. Handout The Van Royen Planning Tool
- Attachment 7. Handout Mind Mapping of Training methods
- Attachment 8. Handout Capacity Building Activities
- Attachment 9. Handout Pictorial Model: Stages of Group Development

### Procedure

### Activity 1. Reflecting on the principles of sustainability (30 minutes)

- 1. Distribute the handouts containing selected quotations and reflections on endurance and sustainability (Attachment 2).
- 2. Give the participants minutes to reflect on the quotations.
- 3. Form the participants into groups of 4 or 5.
- 4. Ask the group members to share to their group their reflections on the quotations, guided by the following questions:
  - How do these quotations relate to the experiences of your organization?
  - What are the principles and strategies of your organization that you think promote or ensure its sustainability?
  - What are the challenges faced by your organization to ensure its sustainability? How do you think these could be addressed?



### Activity 2. Human figure exercise (30 minutes)

- 1. Divide participants into groups of 5 or 6. Give each group some poster papers, pens and tapes.
- Present the idea that an organizational self-assessment should address many capacity areas. These capacity areas can be grouped into the broader organizational dimensions: To Do, To Be, To Relate and To Manage. Give examples of capacity areas to illustrate.

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- 3. Ask the groups to do the following activities:
  - a. Draw a human figure (human size tool).
  - b. Using the drawing of a human figure, ask the participants to identify which parts of the body will be used to represent each of the organizational dimensions. For example, the hands could represent the *To Do* group, while the heart might symbolize *To Be*.
  - c. Using the cards, write organizational capacity areas that are important in sustaining the implementation and management of DRR.
  - d. Present cards with all of the organizational capacity areas and ask the participants to suggest any that are missing. Write these suggestions on cards and add them to the list.
  - e. Once all the cards are made, ask the participants to organize the capacity areas by organizational dimensions, taping the cards to the appropriate part of the figure on the poster.
- 4. End the activity by discussing to the participants the key points in Attachment 9: Stages of Group Development. Emphasize to the participants that in developing the capacities of organizations, one must work on improving task functions and the human relations functions. Explain to the participants the key components of each set of functions.

### Activity 3. SWOT analysis (30 minutes)

- 1. Using the outputs of the human figure exercise, facilitate the groups (using grouping from Activity 2) to simulate a SWOT analysis of a community organization to assess it. (Attachment 4 )
- 2. Ask the groups to share their SWOT analysis outputs.

S - Strengths	W - Weaknesses
0 - Opportunities	T - Threats

3. Identify areas that need to be strengthened that can be drawn from the results of SWOT analysis.

Emphasize that the target is to increase areas of *strengths* by addressing *weaknesses*, maximizing *opportunities* and addressing *threats*.

### Note to facilitator

 If there is a lot of time for this session, the facilitator can employ other tools like Venn diagram (See Module 2 PLA tools) to look at capacities in terms of internal and external institutions that can support the community organizations for DRR. For a more in-depth capacity assessment, the facilitator can use ranking and scoring (See Module 2 PLA Tools).



### Activity 4. Thinking with hexagons (15 minutes)

- 1. Thinking with hexagon exercise.
  - Each participant is given three hexagons.
  - Ask the participant to answer the following questions by writing on each hexagon:
    - What comes into your mind when you hear the term *capacity development / capacity building*? (Use hexagon #1)
    - What comes into your mind when you hear the term *capacity development / capacity building*? (Use hexagon #2)
    - What comes into your mind when you hear the term *capacity development / capacity building*? (Use hexagon #3)
- 2. Divide the participants into groups of 5 or 6.
- 3. Drawing meaning from the hexagons.
  - Participants are asked to put all their hexagons together and cluster hexagons (using key words) that relate to one another.
  - Out of the clustered hexagons, participants are asked to describe the concept of capacity development



### **Sample Clustered Hexagons**

### Activity 5. Shopping for capacity building activities (30 minutes)

- 1. Divide participants into groups of 5 or 6.
- 2. Provide each group a set of cards (around 10 per group)
- 3. Ask each group to write types of capacity building activities that they have used. They can write as many as they want.
- 4. Afterwards, announce the beginning of the "shopping". The facilitator becomes the "buyer" and each group as "sellers". Do the first round of shopping.
- 5. Each group markets one capacity -building activity at a time and entices the "buyer" by
- highlighting the good qualities of their product. After familiarizing themselves with all the products (capacity building activities) for sale, the facilitator decides on which product to buy. The next shopping round is then announced and follows the same process. The group that sells the most products wins the game.

### Note to facilitator

As a buyer the facilitator should consider the effectiveness, cost and practicality of the methods for the community organizations.



6. Process the game with the participants. Other capacity-building activities that are important but not discussed in the game should be mentioned and discussed by the facilitator. Considerations in selecting capacity-building activities include learning objectives, audience, venue (Attachment 8) should be emphasized.

### Note to facilitator

 Prepare a simple prize (i.e. pack of candies for the winning group).



### Synthesis (15 minutes)

- A strong community organization is important to ensure sustainability of CMDRR.
- Need-based capacity building is key in strengthening organizations. Thus capacity assessment results must be the basis for the capacity-building plan. This should be done at the level of both community organizations and support organizations, particularly governments and non-government organizations that play key roles in CMDRR management and promotion.
- There are various ways by which capacity-building can be done. Choose appropriate, simple, practical and cost-effective capacity building activities from a wide array of options.

### **Suggested reading**

Peter, G. & Catheryn, K. 2000. From the roots up: strengthening organizational capacity through guided self-Assessment. World Neighbors, Oaklahoma

ISNAR Briefing Paper No. 50, July 2002.



### **Attachment 1. Reading Materials**

### Self-sustainability in CMDRR



The interspersing method and process of CMDRR signifies a distinct way of doing development work that synergizes its three-way dimensions of process facilitation, solidarity development and task achievement.

The process facilitation focuses on nurturing the process of development. It is concerned with a sustainable working relationship that enables the community to develop group solidarity while accomplishing its task of risk reduction. Through the process, it aims to come up with a gradual emergence of a viable people's organization committed to creative DRR and to a shift from communities being disaster victims to development victors.

Solidarity development focuses on the community-managed aspect of CMDRR to enhance 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, binding 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 people to manage group growth or organizational development through purposeful individual, group and community experiences.

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

In the context of the three-way dimensions of CMDRR, self-sustainability refers to the autonomy of the local organization in the long term with the following aspects:

- 1. *Benefit sustainability:* Refers to the degree to which benefits produced by the development partnership are maintained at the end of the phase-over process of the working relationship.
- 2. *Project sustainability:* Refers to the continuity of the project itself after donor support has stopped.
- 3. *Financial sustainability:* Refers to the component of project sustainability that includes the ability to raise project resources from a variety of sources. This mix of resources should include increasing financial autonomy to move projects away from the dependence on external donors.
- 4. *Process and community sustainability:* Refers to the ability to establish the community process of development service generation and delivery. This means the community, in the long term, will not just depend on external agencies for services, but will be empowered to continue the process after the external organization has reduced or withdrawn its interventions.



### Selected quotations and reflections on endurance and sustainability

"Some of us have the starting power. When troubles come, we quit. If you are dealing with human beings, you are dealing with a thousand year-job. It is one thing to have starting power. It is another to have sustaining power. What is it that can make us stay long enough? The CRUSADING SPIRIT."

Y.C. James Yen

"If you expect your work to endure, it must be built in the minds, hearts, hands, and feet of the people. To harness the hidden power of motivation to make people participate, long for change in their lives, and sustain the change."

Y.C. James Yen

"The enduring work of development practitioners is rooted in the clarity of the values that propel their committed involvement in the lives of the people."

Orly I. Buenviaje

### 2 Sub 3.2





Attachment 3. Handout

### **Sample Human Figure**





Source: From the Roots Up. World Neighbors. 2000.

### Attachment 4. Handout

### **SWOT** Analysis





2 Sub 3.2

The purpose of this tool is to enable the community organization to identify and analyze their capacities by looking at their existing *Strengths*, *Weaknesses*, *Opportunities* and *Threats* in managing a CMDRR program. *Strengths* and *weaknesses* refer to what is internal to the communities, while *opportunities* and *threats* refer to what is external of the communities. Each category is explained below:

Strengths	Strengths are those existing capacities and resources the community members are proud of. These can help them implement the CMDRR program. Examples would include having a functional DRR organization in place, having resources like emergency funds, strong community solidarity, etc.
Weaknesses	<i>Weaknesses</i> are those aspects that have not worked so well or those that need to be improved so that the community organization can lead in implementation and management of CMDRR. Examples include absence of a functional DRR organization, lack of information on DRR, weak solidarity within the community, etc.
Opportunities	<i>Opportunities</i> refer to possibilities for positive change by taking of what advantage is available outside of the community to implement CMDRR. Examples include enactment of new laws and ordinances that promote CMDRR.
Threats	<i>Threats</i> are challenges posed by unfavorable trends outside the community that may hinder implementation of CMDRR. Examples may include top-down approaches, increasing climate change, etc.

Adapted from IIRR and LWR: Community -managed Disaster Risk Reduction in Community Development. A guide to civil society organizations p. 59

### Attachment 5. Handout



### **Capacity Development Definition and Process**

### **Capacity Building**

- Can be understood as an explicit effort to improve an organization's performance in relation to its purpose, context, resources and sustainability.
- Its aim is to develop a more effective, viable, autonomous and legitimate organization by creating the conditions that can produce higher impact towards its vision and mission.

### **Views on Capacity Development**

- Capacity development *as a means*: to strengthen the organization's ability to carry out specific activities
- Capacity development *as an end:* to strengthen an organization's ability to survive and become self-sustaining.
- Capacity development *as a process:* to enable the organization to continually reflect and adopt its purpose to change and learning; to connect its evolving purpose and vision on one hand and its structure and development activities on the other.

### Sources:

Peter, G. & Catheryn, K. 2000 *From the roots up: strengthening organizational capacity through guided self-assessment.* World Neighbors, Oklahoma.

*Charles Lusthaus, Marie-Hélène Adrien, Gary Anderson, Fred Carden and George Plinio Montalván.* ORGANIZATIONAL ASSESSMENT: A FRAMEWORK FOR IMPROVING PERFORMANCE.

### Figure below illustrates the 6 steps to foster a holistic approach to capacity development.



### Steps in a holistic approach to capacity development

D. Horton, A. Alexaki, S. Bennett-Lartey, K.N. Brice, D. Campilan, F. Carden, J. de Souza Silva, L. T. Duong, I. Khadar, A. Maestrey Boza, I. Kayes Muniruzzaman, J. Perez, M. Somarriba Chang, R. Vernooy, and J. Watts. 2003. *Evaluating capacity development: experiences from research and development organizations around the world.* : International Service for National Agricultural Research (ISNAR) The Netherlands; : International Development Research Centre (IDRC) Canada: Technical Centre for Agricultural and Rural Cooperation (CTA) The Netherlands.

Attachment 6. Handout



### The Van Royen Planning Tool



Participants	:	Background, experiences, and learning needs
Objectives	•	Why this training, what will be achieved by it
Content	•	What are the issues that need to be discussed
Methods & techniques	:	How can these be learned, discussed
Organization, facilities	:	Timing, rooms, equipment, stationery, transport, etc.
Context	•	Weather, distraction from work
Monitoring & evaluation	:	Assessment of all above during and after training

2 Sub 3.2





### Attachment 7. Handout

### **Mind Mapping of Training methods**



### Definition

- The means that trainers use to achieve learning objectives
- Procedures, techniques and processes trainers use to help trainers learn new KSA

Training

methods

### Considerations

- Learning principles
- Objectives
- Training situation trainees
   Trainers
  - Constraint
- Others
  - Budget
  - Availability of materials
  - Time available for training

### **Different training methods**

- Lecture discussion
- Brainstorming
- Collage making
- Structured learning exercise
- Games
- Role playing
- Group dynamics
- Puppetry
- Song analysis
- Story telling
- Workshops
- Small group discussions
- Plenary
- Panel discussion

- Demonstration
- Individual/group projects
- Simulation

Attachment 8. Handout

### **Capacity Building Activities**











### **SUB MODULE 4**

### COMMUNITY-LED MONITORING, EVALUATION AND LEARNING

 Community-led DRR Monitoring Evaluation and Learning



### COMMUNITY-LED DRR MONITORING EVALUATION AND LEARNING



### Duration: 3 hours

### Description

In several early sessions the participants learned how to facilitate communities to develop a DRR plan, community action plan and contingency plan. This session deals with how to facilitate community-led DRR monitoring, evaluating and learning process. The emphasis is on how to facilitate community self-learning where communities can reflect and take appropriate action.

### **Learning Objectives**

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

- 1. Understand the basic concepts, definitions and principles of participatory monitoring, evaluation and learning.
- 2. Distinguish community managed PMEL from conventional monitoring and evaluation.
- 3. Be able to use selected M and E tools relevant to community participation.
- 4. Be able to lead community participation in gathering, analyzing, presentation and use of DRR data.
- 5. Demonstrate how community members can actively participate in designing PMEL plan for DRR activities.



### Learning aids and materials

- Flip chart paper
- Black/whiteboard
- 5" x 8" cards
- Chalk/marker pen
- Pins/masking tape
- Attachment 1. Material for Activity 1 List of concepts
- Attachment 2. Material for Activity 1 Definitions of concepts
- Attachment 3. PMEL Concepts, Definitions and Principles
- Attachment 4. Community led and conventional M and E
- Attachment 5. Handout Advantages and disadvantages of selected tool
- Attachment 6. Material for Activity Exercise form for data sources and type
- Attachment 7. Handout Framed and non-framed tools
- Attachment 8. Handout Monitoring tools for community managed DRR
- Attachment 9. Handout M and E design
- Attachment 10. Handout Sample form Evaluation framework
- Attachment 11. Sample form on community DRR measures for case analysis

### Procedure

### Activity 1. PMEL Concept, definitions and principles

- 1. Distribute Attachment 1 to half of the participants which contain definitions of PMEL terms and concepts. To the rest of participants circulate Attachment 2 which provide descriptions.
- 2. Move the participants to an open space where they can move freely and ask them to look for a match between descriptions and concepts. Give them 15 minutes to complete the task.
- 3 Once participants finished matching, request them to stand in a circle side by side with their match and let each pair read their terms and description.
- 4 After every pair, ask the other participants to affirm or correct if the terms and descriptions are accurately matched.
- 5 Using the tips below and answer sheet in Attachment 3, and the comparison of conventional and community-led M and E (Attachment 4), summarize the session in an interactive manner:
  - Monitoring is a frequent and continuous supervision of an activity to ensure that it is
    proceeding according to plan and on time.
  - Evaluation is a periodic assessment of progress towards achievement of planned objectives and results.
  - Learning is a process of reflecting on what has worked and/or not worked and why.
  - Ask participants to cite examples on how community members (women and men) have participated in monitoring and evaluating DRR activities or projects in the past.
  - Building on the examples of participants, emphasizing the difference between community led and conventional M and E (Use example in Attachment 4).
  - CMDRR requires active community participation of all concerned (women, men, boys and girls) throughout the process, including planning, monitoring, evaluation and learning.
  - Use Diagram 1 to explain the importance of M and E in community development work.
  - Diagram 2 also shows the link of Participatory Disaster Risk Assessment to Planning, Monitoring, Evaluation and Learning Systems.





### Diagram 1: Visual presentation of the comparisons between monitoring and evaluation

The artwork shows that evaluation without careful monitoring is fruitless. Farmers do careful monitoring of their crops from planting to harvesting.

The column of pictures on the left shows the gains made by intensive monitoring.



Diagram 2: Risk Assessment Process and Analysis link to Planning, Monitoring, Evaluation and Learning System

### 1. Hazard Assessment Analysis

Hazard	Information is vital for risk	
Characteristic	assessment and analysis	
	To know whether the	
	hazard is preventable.	• 
	To understand how hazard	
Force	causes harm, in order to	
	decian mitigation measures	-

## 2. Vulnerability Assessment Analysis



# After explaining this diagram distribute handout (Attachment 11).



function to make the community

bounce back

survive and

systems and

structures

Community

Hazard impact

reduced

Individual resilience Individual

prevented

Impacts Hazard saves more lives

Community

resilient

and reduces

losses

### Activity 2. Development tools for DRR Monitoring and Evaluation

Careful selection of simple and relevant tools and ownership of those tools is critical for the community to lead and make CMDRR sustainable. Facilitators must make an effort to select tools that are simple and familiar to community members and their organizations. When doing a similar exercise with community members and their organizations, the tools must be replaced with those that the community members themselves will identify. The following set of activities will help in this process.

- 1. Ask participants to write on cards (one tool per card) all M and E tools they have used or know that are linked to DRR.
- 2. Pair them and ask them to consolidate the tools they have listed individually.
- 3. Put two pairs together and consolidate their tools into a common list.
- 4. Then ask the groups to present in plenary the tools they have listed and agree on which tools are more appropriate for use with communities.
- 5. Mix the pairs and form new groups. This time, ask the advantages and disadvantages of selected tools, keeping in mind their relevance and use at community level.
- 6. The groups present the results of their discussions, answering questions if any from the other participants.
- 7. After all the groups have presented, summarize and synthesize by using relevant tools and methods. Put especial emphasis on framed and none framed tools in attachment 7. Distribute the handout in Attachments 5, 7 and 8.

### Activity 3. Data Collection, Analysis and Use

### Note to facilitator

Data is an important part of any monitoring and evaluation process. Data serves as the basis for analysis to determine the progress of CMDRR implementation. To identify the data that the community needs, it must determine first the indicators for each of the identified DRR measures and activities as presented in the previous session in Sub-Module 2. Indicators are pointers of evidence and manifestations that show the goal or objective of CMDRR has been achieved. They are used as the measure to what extent the community has achieved its resilience goals. Indicators are formulated based upon the results of the participatory disaster risk assessment (PDRA).



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After identifying the indicators, the community now needs to get data for each indicator. For example, an indicator for survivability is "the number of at risk persons vaccinated against diseases." It needs to know the actual number of persons who were actually vaccinated. The CMDRR facilitator assists the community to identify the tools and methods that are relevant for community use, and differentiate between qualitative and quantitative as well as structured and non-structured tools and approaches.

To facilitate this training activity through brainstorming, ask the participants the following questions:

- What is the purpose of collecting community data?
- How will one engage community members actively?
- What information will be gathered?
- What are some sources of community data?
- How will the data be collected?
- Who will collect the data?
- When will data be collected?



- 1. Group the participants into groups of 5-6 persons and ask them to fill out the PMEL form in Attachment 6.
- 2. After completion of group work ask each group to present their findings to the plenary.
- 3. By using the example of the group, show how data can be analyzed and presented.
- 4. Synthesize the points raised by using the tips in the box below.

### Note to facilitator

Choice of data depends on several factors. Here are some:

- Must point out the differences between conventional and community-led M and E
- Only simple and relevant data should be used
- Community members, even those who are not literate, can participate in data collection
- Community members can participate in a range of data collection activities depending on the simplicity and relevance of the tools. They can count, use pictures, role play or other interactive methods (refer to Participatory Learning and Action tools and Attachment 5)



- Data collection should consider ease of application: does the tool require high levels of skill, literacy and training and a lot of materials and equipment?
- Community members have limited time. It is therefore important to carefully plan such things as application and area coverage (how many communities or households)
- Frequency of monitoring and evaluation (time demand for data collection and analysis)
- Cost effectiveness (logistics, materials, equipment)
- Feedback

### Activity 4. Designing a simple monitoring and evaluation system for DRR

In designing the DRR M and E system, it is crucial that the community members take the lead with the help of facilitators. They should suggest what the community needs to monitor to achieve their goal, what type of information they will need, when, who and how information will be gathered, analyzed and used. To understand the above process participants will accomplish the following activities:

- 1. Divide participants in small groups of 5-6 individuals.
- 2. For each group provide a case, action plan, a project or contingency plan from previous sessions.
- 3. Provide them with a skeleton community DRR M and E design framework (Attachment 9).
- 4. After the groups complete the forms, each group will present and get feedback from the large group (see filled up form in Attachment 10).
- 5. Show sample filled form in attachment 10 to show how the tool can be properly filled.
- 6. Summarize the session by emphasizing that data collection analysis and use is part of community members' daily life.

### **Synthesis**

- Monitoring takes care of activities, evaluation takes care of results.
- While monitoring generates valuable lessons on the activities, evaluation generates lessons on the results as well as shows the relevance or irrelevance of the activities.
- Conventional PME radically differs from PMEL in terms of objectives, methodology and underlying principles.
- The sustainability and applicability of a framework or non-famework approach in PMEL depend on community situation. The differences between them are at the level of methodology but they share common goals of learning and community empowerment.



2 Sub 4.1

- Community participation is essential in designing and conducting monitoring and evaluation plans and in gathering and analyzing DRR data.
- This is possible by employing participatory processes.



Attachment 1. Material for Activity 1

### List of terms for Activity 1





**Attachment 2. Material for Activity 1** 



### List of definitions and concepts

A continuous process of tracking and measuring change and relating change to the intervention.

A continuous oversight on an activity during its implementation to ensure that operations are proceeding correctly.

Provide answers to questions related to measuring outcome or change.

Set of interventions that enable achievement of objectives.

A long-term DRR change (behavioral or developmental) resulting from attaining program objectives and goals.

A wise use of resources (manpower, materials, money, time).

information used to plan CMDRR activity or action.

Systematic collection and organizing of information for planning CMDRR activities or action.

Set of pointers that show that progress towards planned DRR activities or outcome is being made.

A set of information used to mirror or compare progress before and during or after the project is implemented.

Process that engages all community members in assessing hazards, risk, vulnerability, capacity of community to formulate DRR plan.



### Attachment 3. Material for Activity 1



### **Concepts, Definitions and Principles**

**Learning** is a continuous process of tracking work, measuring change and relating change to the intervention.

**Monitoring** is continuous oversights on an activity during its implementation to ensure that operations are proceeding correctly.

**Result** provides answers to questions related to measuring outcome or change.

Activities are set of interventions that enable achievement of objectives.

**Impact** is a long-term DRR change (behavioral or developmental) resulting from attaining program objectives and goals.

Efficiency is a wise use of resources (manpower, materials, money, time).

Data is information used to plan CMDRR activity or action.

**Data Gathering** is the systematic collection and organizing of information for planning CMDRR activities or action.

**Indicators** are a set of pointers that show how progress towards planned DRR activities or outcome is being made.

**Baseline** is a set of information used to mirror or compare progress before and during or after the project is implemented.

**Participation** is a process that engages all community members in assessing hazards, risk, vulnerability, capacity of community to formulate DRR plan.

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### Attachment 4. Material / handout for Activities 1 and 2: Concepts, Principles and Definitions



### Community-led and Conventional M and E

	Conventional M and E	Community driven PMEL
Purpose	Fulfill requirement of outsiders (donors, government)	For learning and improvement by community, project staff and local organizations
Process is managed by	Senior managers or outside experts of external agency	Local people, project staff and other stakeholders, with the help of outsiders
Role of community	To provide information only	Design and adapt the methodology, collect and analyze data, share findings and link them to action
Role of development professionals	Key player in monitoring, evaluation and learning	Facilitator community members and local organizations doing the monitoring and evaluation
How success is measured	Indicators are defined by the outsiders	Indicators are defined by the community and project staff through consultation
Design	Pre-determined/fixed by agency who commissions evaluation	Adaptive/flexible through interactive process
Goal	To judge effectiveness and efficiency of project using standard judgment	Continuous improvement, community-learning, action and empowerment





### Attachment 5. Handout



### Advantages and disadvantages of selected tools

Selected community			
tools	Advantages	Disadvantages	How to improve
Community conversation/ community meeting	Many people can participate Consumes less time Good to get quick general information	Opinions of different members could clash Limited to general information Could be dominated by vocal few who may influence decision Culture may restrict participation of some like women, hence excluding their voice Can easily be politicized	Group members by gender or age to allow free expression of opinion Ensure a wider participation through effective facilitation Keep the conversation focused on the issues to be dealt with
Drawing and pictures	Even people who are not formally educated can understand Easy to capture imagination Simple source of baseline Relatively cheap	May require specialization Requires materials and equipment like camera Different interpretation by different people	Simple cameras can be distributed to communities Can train some members (youth) to draw and/or take pictures
Questionnaire	Easy to trace source of information Independent information can be secured Relatively cheap Easy to generate quantitative data	Often only few return questionnaires Time consuming Limited to those who can read and write	Keep questions simple and less time consuming Make instructions clear Follow up and reach out to get as many responses as possible Show the value of information needed

Selected community tools	Advantages	Disadvantages	How to improve
		Some information may be withheld or are conflicting	
Individual/household interviews	Easy to clarify in case of uncertainty	Takes time for interviewer and interviewee to communicate	
		Households that cannot be accessed are excluded	
	Provide a variety of practical options	Consumes community's time	Share PLA results
PRA Simple and practical for a wide range of		with limited benefit to them	projects for communities
	community members to participate	Mainly quantitative and limited	Complement with quantitative data
	Quick and inexpensive	qualitative data	

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## data will be data will use data data will use data bresented data

How data will be presented		
How data will be collected		
Who will collect		
Tools to collect data		
Source of information		
Information needed		
Indicators		
DRR measures		





### Attachment 7. Handout Framed and non-framed tools

### Emerging alternative paradigm: PPME without framework and indicators



Recently, we have also observed communities implementing PPME process without framework and pre-set indicators. This is because of the difficulties faced by the facilitators in instituting PPME framework at the community using "alphabetic writing approach" which many are not comfortable with.

According to the non-framework paradigm of PPME, a facilitator assists the community to prepare an action plan and a non-formal system of monitoring but does not use a structured monitoring and evaluation framework. Advocates of non-framework M and E approach argue that if communities are facilitated by appropriate tools then it is possible to identify changes (positive or negative) of any intervention without pre-set framework.

### Tools used for those who prefer to use the PMEL framework

### Plan and monitoring tool

Activity planned	Done ✓ Not done ×	Activity implemented out of plan
		Learning related to contributory and hindering factors in the implementation
Recommendation/s:		

### Yearly evaluation

Changes the community wanted to see as stated in the DRR action plan	Situation at the time of the start of the plan	Situation after a year the plan was implemented

What factors contributed to achieve the identified positive changes?

What factors hindered us from achieving the planned change?

The lessons we want to apply for next year

### Attachment 8. Handout



### Monitoring and learning tools for community managed DRR

Tools used for non-frame PMEL include:

- Periodic review meeting on the action plan implementation: using simple tools, the community and its organization review activity implementation and the hindering and facilitating factors.
- Open space: Community members discuss openly the change in intervention.
- Change story-telling/listening: A group of people shares stories of change
- PLA: People use tools like the impact tree, impact flow diagramming and ranking and create visual symbols on the change.
- Community-identified significant change (CISE): This tool combines together the story-telling and PLA tools to identify the significant change and their attribution to interventions
- Community evaluation workshop: A simple one-day workshop organized in the village by the community organization to discuss and identify changes brought about by the interventions they made.
- Changes, present to past: This is done to avoid complications in baseline creation. During DRR action planning, the community identifies the changes they expect after successful completion of the action plan. At the end of action plan implementation, during a participatory evaluation workshop, the community compares the indicators of change from present to past situation rather than past to present.
- Triangulation: For ensuring reliability and validity of findings on the changes monitored, the principle of triangulation is used. Triangulation employs an approach by which data on changes are collected by different groups; the sessions are conducted with different categories of population in a community; and they are held separately focusing on related contents of change, e.g. one group on common disease reduction while other works on expenditure reduction caused by common diseases.

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**Evaluation framework** 

When and to whom will the learning be shared?			
How will it be presented?			
When will it be recorded			
Who will be responsible to record the information?			
How do we gather and record this information?			
What information will show that what we have achieved the result?			
What are the results we want to achieve?			

### Attachment 9. Handout Exercise for M and E Design



### 2 Sub 4.1

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# Evaluation framework (Example of one result only)

When and to whom will the learning be shared?	Share during district wide CMDRR field day
How will it be presented?	Comparing pictures of damages on structures before and after project started
When will it be recorded?	Each time following flood occurrence
Who will be responsible to record the information?	Community DRR facilitator
How do we gather and record this information?	Record in community DRR logbook by observing damages after flood occurrence
What information will show that results are achieved?	Reduction on flood damages of community structures
What are the results we want to achieve?	Flood resilient Community

Attachment 10. Handout - Sample Form



Community's vision of resilience: A resilient and progressive community where people are living in harmony with their environment

### **Resilience goals:**

- To increase the survivability of the elements most at risk by building their capacities;
- To implement actions that will address the root causes of disaster risks and incapacities of the community; and
- To effectively manage the various risk reduction activities in a manner that is transparent and accountable.

for case analysis

### Hazard Profile:

The village XYZ has been affected by drought, flood and armed conflict in the past 10 years. According to the participatory disaster risk assessment conducted, the village identified flood as the hazard that has a high probability of happening and worsening and putting begins to subside. Flood usually comes after three hours of heavy raining. People start to prepare when they see the formation of very more people and properties at risk. Flooding in village XYZ happens every year during the rainy months of July and August. Flood waters usually come very fast and are between five to six feet in depth. The flood water stays in the village for one week when it dark clouds covering the mountains.

, 	Time	Canadidate Canad	Obiochiroc		Expected	d Changes or Re	sults
COMPONENTS	Element	capacity uaps	סטאבנוועבא		Output	Outcome	Impact
Hazard Prevention		Canals and rivers are poorly maintained and becoming shallow	Ensuring that canals and rivers are functional in draining flood waters	Canal clean up River rehabilitation River bank stabilization	Canals and rivers are dredged	Canals and rivers are regularly maintained	Flood is prevented
Hazard Mitigation		Unfinished flood dike in the north side of the village	Construction and maintenance of dike	Construction and maintenance of dike protecting the villagers	Dike is finished	Dike is properly monitored and maintained	Flood is mitigated







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	Time				Expected	d Changes or Re	sults
Components	Element	Capacity Gaps	Objectives	DRR Measures	Output	Outcome	Impact
Individual Survivab	ility						
Of adult men	During	Not able to understand early warning signals	Build capacities of men in understanding warning signals	Capacity building on survivability	Men are able to understand warning signals	Men knows how to act accordingly during the hazard	Men survives the flood
	Before	Lack of access to hazard information and risks	Ensure access of hazard information and risks	IEC for the men	Men acquired basic skills to understand warning	Men acquired survival skills	Men become resilient
Of adult women	During	Difficulty to escape flood waters	Ensuring the safety of women	Integration of gender in the contingency plans Simulation of Women specific activities in the contingency plans	Women are provided assistance in escaping	Women able to use survival skills	Women survives the flood
	Before	Few opportunities to go out and learn about disaster preparedness	Building capacities of women	Capacity building for women on disaster preparedness and survivability	Women trained on disaster preparedness	Women given survival skills	Women are resilient

Building Resilient Communities. A training manual on Community Managed Disaster Risk Reduction
	Time				Expected	d Changes or Re	sults
components	Element	capacity caps	Objectives	DKK Measures	Output	Outcome	Impact
<b>Community Readine:</b>	SS:						
<ul> <li>Transportation</li> <li>Health services</li> <li>Evacuation</li> <li>System</li> <li>Communication</li> <li>Internal</li> <li>response</li> <li>Early warning</li> </ul>	During	<ul> <li>No available vehicle to transport affected individuals</li> <li>Village health center does not have supplies for first aid</li> <li>Evacuation center is limited</li> <li>No early warning system</li> </ul>	Setting up community systems and procedures to save more lives and properties	Formulation of community contingency plans for the various scenario of the hazards	Activated the contingency plans for the early warning, evacuation, transportation, response and health.	Efficient execution and the contingency plan activities	Community able to save more lives and properties
<ul> <li>Transportation</li> <li>Health services</li> <li>Evacuation</li> <li>System</li> <li>Communication</li> <li>Internal</li> <li>response</li> <li>Early warning</li> </ul>	Before	<ul> <li>Lack of water system</li> <li>Poor sanitation and hygiene practices</li> <li>Low awareness of the hazard</li> </ul>	Setting up of community structures and systems to make the community more resilient to floods	Integration of risk assessment and risk reduction measures in various community development plans	Implemented risk reduction projects such as WASH and IEC on the floods	Regular allocation of funds to maintain water systems and hygiene facilities and IEC	Community more resilient to floods



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## **Suggested reading**

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