Trainers' Manual

Community Based Disaster Risk Management

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Humanitarian Aid

(Trainers' Manual)

Community Based Disaster Risk Management

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Compiled by : Ms. Mariser Palencia
Reviewed by : Irfan Maqbool, Zubair Murshed, Usman Qazi
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Address :

UNDP-Pakistan
House No. 12, Street No. 17
Sector F-7/2, Islamabad, Pakistan.
Phone: +92-51-8255600
Fax: +92-51-2655014
Web: www.undp.org.pk

National Disaster Management Authority
Prime Minister's Secretariate
Islamabad, Pakistan
Phone: +92-51-9222373
Fax: +92-51-9204197
Web: www.ndma.gov.pk

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Building Enabling Governance and Institutions for Earthquake Response (BEGIN-ER)

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Foreword

Pakistan has witnessed at least 139 major disasters over the last 80 years, including floods, drought, landslides, cyclones, river and sea erosion, and earthquakes. In fact, Pakistan is the fifth most earthquake-prone country in the world. Pakistan is also exposed to man-made hazards such as internal conflicts, environmental pollution, fires, leakage of toxic gases, and progressive environmental degradation due to industrial development and expansion across the country.

In the wake of the devastating earthquake of October, 2005, the government institutions at all levels were unable to respond in an effective and coordinated manner, largely due to the lack of technical capacities of forecasting, responding, and managing such disasters. Nonetheless, the compassionate and collective national response during the emergency phase was tremendous.

In this backdrop and as part of the joint UN earthquake response, the United Nations Development Programme (UNDP) supported the Government in restoring the operations of local government institutions for the planning and implementation of recovery activities through the Building Enabling Governance and Institutions for Earthquake Response (BEGIN-ER) project. In this project, capacities of elected local representatives, government officials and community-based organizations are to be strengthened in disaster risk management through district-level training workshops in the affected areas of North West Frontier Province (NWPP) and Pakistan Administered Kashmir (P AK).

After the establishment of the National Disaster Management Authority (NDMA) through the National Disaster Management Ordinance in December 2006, UNDP supported the NDMA in putting together its efforts in developing separate Trainer's Manuals and Participants' Workbooks both in English and Urdu languages on Disaster Risk Management for local communities and district government authorities.

I am pleased to present to you these Manuals and Workbooks with the hope that the government officials and local communities in hazard prone areas of the country would augment their technical capacities to minimize risks related to disasters and to help create a safer Pakistan.

I would like to thank our consultants Ms. Marita C. Santos, Ms. Mariser Palencia, Ms. Vidya Rana, and Mr. Abdul Hameed for developing the Manuals and Workbooks. I am indebted to Mr. Mohammad Zafar Iqbal, Assistant Resident Representative, UNDP,

for taking this much needed initiative. Special thanks are due to Mr. Zubair Murshed, Mr. Irfan Maqbool and Mr. Usman Qazi for their untiring efforts during the whole process of developing the outlines, conducting the review sessions, and doing the final editing of all the documents. Mr. Tariq Rafique Khan and Ms. Shaista Hussain deserve special applause for the support they extended to the training team. I am also grateful to Mr. Anwar ul Haq and Mr. Shahid Aziz for organizing training needs assessment sessions with government officials and civil society representatives in Abbottabad and Muzaffarabad respectively.

I am optimistic that under the new leadership of NDMA, the capacity building programme for district government officers, elected representatives, and community based organizations would bring about a significant change in the area of disaster risk management.

Mikiko Tanaka
Acting Country Director
UNDP Islamabad

Message from the Chairman
National Disaster Management Authority

One of the most important lessons learnt from the response to October 2005 earthquake has been the need for formulating an appropriate policy and developing institutional arrangements for disaster risk management in order to deal with any future disaster events in a more professional, organized, and effective manner.

Realizing the significance of this requirement, the Government of Pakistan has established a number of institutions at the national, provincial and district levels. They include: National Disaster Management Commission (NDMC), National Disaster Management Authority (NDMA), Provincial Disaster Management Commissions, Provincial Disaster Management Authorities and the District Disaster Management Authorities. The National Disaster Management Ordinance, which was originally issued by the President's Office on 21st December 2006, provides justification for the establishment of above-mentioned institutions.

Another point of concern emerged during the response activities was the lack of technical capacities on the part of local-level stakeholders, which specifically include the district government institutions. It is believed that a trained human resource could have saved more lives during the search and rescue operation undertaken by the local communities and various government departments in the earthquake-hit areas.

In view of these issues, lessons and priorities the National Disaster Management Authority (NDMA) puts the premium upon the establishment of proactive and useful District Disaster Management Authorities with a substantive focus on building their technical and physical capacities. In this regard, the NDMA with support from the United Nations Development Programme (UNDP) has produced the Trainers' Manuals and Participants' Workbooks for the district government officials and other stakeholders. The idea is to promote common approaches for disaster risk management across the country.

The provincial governments, NGOs and other stakeholders can use these Manuals in order to train the district officials who are involved in the establishment and management of the District Disaster Management Authorities. The Participants' Workbook can serve as a guide for DDMA officials in understanding and implementing disaster risk management strategies at the district level.

The NDMA is circulating these manuals and workbooks to all district officials including the Nazims, District Coordination Officers (DCOs), Deputy Commissioners (in AJ&K)

and Executive District Officers (EDOs) of all line agencies. I hope you will find these publications useful for working with DDMAs in your respective regions. For broader public information, the manuals can also be downloaded from
http://www.ndma.gov.pk

Lt. Gen. Farooq A. Khan
Chairman
National Disaster Management Authority (NDMA)

How to use the manual?

This manual is designed to respond to the needs of NGO trainers who are conducting training-workshops on disaster risk management for the community. It has six modules (excluding the Opening Session). The structure of this manual is as follows:

Module 0 : Opening Session
Module 1 : Introduction to Community Based Disaster Risk Management
Module 2 : Disaster Management System in Pakistan
Module 3 : Community Risk Assessment
Module 4 : Community Preparedness and Emergency Response Activities
Module 5 : Community Risk Reduction Measures for Drought, Flood, Earthquake, Landslide and Cyclone
Module 6 : Community Risk Management Planning

Module 0 contains the activities to formally open the training-workshop. It includes the opening program, introduction of participants, expectations from the participants, discussion of the training design, course objectives and program, schedule and setting the technical arrangements.

Module 1 describes the disaster management experiences in the community and relate them to the Pakistan disaster situation. This module also explains the concepts and approaches in disaster risk management.

Module 2 explains the local government system, public departments, structure, roles and responsibilities in areas of disaster management, as provided under the local government ordinance.

Module 3 explains the process and tools in conducting participatory risk assessment, which includes hazard assessment, vulnerability assessment, capacity assessment, and people's perceptions of disaster risk. A fieldwork on community risk assessment is part of this module.

Module 4 discusses disaster preparedness and emergency response activities in the communities.

Module 5 explains the importance of community risk reduction and identifies community disaster risk reduction measures for earthquake, flood, landslide, drought, and cyclone.

Module 6 discusses the importance of, and process in developing a community risk management plan.

Each module and session consists of the following parts:

Session Objectives 	Explain what the session aims to achieve
Key Notes 	Provide a brief definition of concepts
Methods 	Describe the training methods to be used
Process 	Explains the steps in discussing the topics
Duration 	Indicates the amount of time needed in conducting the session
Tips to Facilitator 	Provides useful ideas, suggestions and other learning experience
Materials Needed 	Refer to the materials and equipment necessary in conducting the session
References 	Indicate the sources of information/data used

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Module-0

Opening Session

Objectives:

At the end of this session, the participants would be able to:

1. Understand the course objectives and programme of activities;
2. Clarify expectations from the training course;
3. Set technical arrangements such as schedule and formation of host teams;
4. Identify other people in the training workshop.

Methods:

- Games & exercises
- Board work
- Workshop

Process:

1. Registration of participants
2. Welcome participants and introduce yourself (your name, organization, work experience)
3. Introduce the invited government official to give the welcome address and officially open the session
4. Participant Introduction: The following are different exercises in getting-to-know the participants:

   4.1 Distribute colored papers, markers and scissors to the participants and ask them to shape it, or draw something on it that will best describe their feelings at the moment (e.g., a happy/excited/anxious face, a tree in bloom, etc). Then ask the participants to stand and form a circle, and have each one:

   - introduce his/her name;
   - explain why they chose to come up with such drawing/figure;
   - community where he/she comes from;
   - task/position in the community.

   4.2 Participants add phrases to the following as a way of introducing themselves and their feelings, expectations and contributions to the training:

   "I am _____. I am _____"

   "I can _____"

   "I expect _____"

   "I will _____"

5. Present course outline and objectives.

6. Participant's Expectation: Now that the participants are familiar with each other, it's time to know the participant's expectations from the 5-day training-workshop. There are different ways to facilitate:

   6.1 Form the participants into small groups of 4 to 5 members. Distribute flip chart sheets and markers to each group. Ask participants to discuss the following:

   - What skills, knowledge, and attitude do I want to improve after this training?
   - What knowledge, skills, and attitude can I contribute to make this training successful?
   - What training methods and approaches can the facilitator use to help me participate and learn better?
   - What do I expect from my co-participants to make this training successful?

   After posting the flip charts on the walls, discuss and summarize the expectations of the participants. Compare the expectations with the training objectives, contents and schedule. Run through what expectations can be covered by the training and what is not within the scope of the training.

   Explain that these expectations will be discussed again on day 5 during the course evaluation.

   6.2 "Board Work". For the same questions as in number 6.1, ask participants to write their answers on colored paper or meta cards. Use one color for each question. Ask participants to post their answers to each question on the board or wall. Discuss answers and relate to the Training Design.

   6.3 Ask the participants to form a circle. A ball of paper (or small ball or orange) is thrown to each participant in the circle who introduces him/herself and answers the same questions as in 6.1. The facilitator takes notes of the expectations on the board. When all participants are finished, the facilitator discusses the answers and relates them to the Training Design.

7. Formation of daily host teams, agreement on technical arrangements, enumerate dos and don'ts to facilitate learning, etc.

Duration: 2 hours

Tips to Facilitator:

- The training course will run for 5 days with 6 modules, excluding Opening and Closing Activities. It is designed to be conducted in 5 days (probably in the *tehsil*, where training facilities are available), and can also be held in a staggered manner in the community.
- Specific Objectives indicate the expected outputs for each session. Each session contributes to attainment of each Modular Objective, as contained in the Training Design.
- In choosing ice breakers, games and exercises to use, facilitators must be sensitive to age, gender and cultural considerations. You can come up with various games and exercises to introduce sessions or provide ice breakers. Adapt each one to participants' characteristics, experiences and interests.
- While the first part of the Opening Activities can be formal with the community and/or district officials giving messages, it is important to establish an atmosphere of openness and trust among the participants and facilitators at the start, to have an environment conducive to sharing and learning.
- Make adjustments to the prepared Training Design as necessary, based on the results of the Expectation Check.
- If people **listen** to the information, they remember only **20%** of what they hear. If they only **look** at the information, they remember about **30%**. If they combine **listening and looking**, they remember about **40 to 50%**. If they also **talk about what they hear and see**, they remember **70%**. And best of all, if they also **use what they have learned**, they will remember **90%** of it.

Materials Needed:

- Name tags
- Opening program
- Training design & program of activities
- Flip chart sheets
- Meta cards
- Colored paper
- Colored marking pens

Tasks of the Host Teams

The Host Team is a group of participants that assumes responsibility to assist the Facilitators/Trainers in the daily management of the training with the following tasks:

1. Acts as timekeeper for start and end of sessions;
2. Provides ice breakers and energizers;

3. Distributes hand-outs;
4. Assists facilitator in posting visuals and cleaning the boards;
5. Starts daily activities with a recitation, recap of the previous day's sessions and announcements;
6. Gathers feedback and suggestions from participants and share these with the facilitators or organizing group of the training;
7. Ensures order and cleanliness of classroom

Other tasks which may be given to daily management teams as necessary:

1. Make arrangements for Closing Programme;
2. Acknowledge guests and thank facilitators and the organizing group on behalf of the participants;

Tips

1. Provide learning objectives and an agenda;
2. Establish ground rules or group guidelines;
3. Provide comfortable seating and a place for participant materials;
4. Ensure the room temperature is comfortable;
5. Use fan-type or u-shape seating to allow for interaction, easy viewing of audio-visuals, and application of group work;
6. Incorporate various delivery methods and minimize overuse of multi-media;
7. Actively involve learners through case studies, role-plays, games, brainstorming, exercises, participative discussion, simulations;
8. Allow for periodic breaks, make sure to adhere to agreed time to start and end each session;
9. Acknowledge all responses and contributions;
10. Reinforce positive behaviors;
11. Value diversity e.g., participants' background and experience, learning mode, etc.

Training Design and Programme

General Objective:

The training aims to enhance the participants' skills, knowledge and attitude in community based disaster risk management.

At the end of the 5-day training, the participants would be able to:

1. Describe disaster management experiences in the community and relate them to the Pakistan disaster situation;
2. Explain the concepts and approaches in disaster risk management;
3. Understand the public departments and local government system, structure, roles and responsibilities in the area of disaster risk management as provided under the local government ordinance;
4. Understand the constitutional structure, functions, roles and responsibilities of public departments and local authorities with regards disaster risk management in Sindh, Balochistan, North Western Frontier Province, Punjab (SBNP),& Azzad Jammu & Kashmir (AJ&K);
5. Explain the importance of community risk assessment and people's perception of risks;
6. Describe the process of community risk assessment;
7. Describe and use various tools in community risk assessment;
8. Explain why gender, age, class, culture and ethnicity should be considered in assessing risks;
9. Discuss preparedness and response activities in the community;
10. Demonstrate skills in conducting community preparedness and response activities;
11. Explain the importance of disaster risk reduction;
12. Identify community disaster risk reduction measures for earthquake, flood, landslide, drought and cyclone;
13. Discuss the importance of, and process in developing a community risk management plan;
14. Link disaster risk management plan to development.

Training Design and Programme

Date/Day	Topic/Activity	Methodologies	Key Persons
Day 1	**Module 0** Registration Welcome Remarks Introduction of Participants Expectation Check Course Overview Technical Arrangements	Games, workshops	CCBs/CBOs Facilitator/Participants
	Module 1: Introduction to Community Based Disaster Risk Management • Session 1: Disaster Risk Situation at the Community Level • Session 2: Overview of Pakistan Disaster Situation	Group work, interactive lecture, plenary discussion Group work, plenary discussion, paste ups, gallery	Facilitator / Participants
Day 2	**Continuation of Module 1:** • Session 3: Terms & Concepts in CBDRM	Inputs/Discussion	Facilitators/Participants
	Module 2: Disaster Management System in Pakistan • Session 1: Local Government Ordinance and Disaster Risk Management Structure, Roles and Responsibilities in Sindh, Balochistan, NWFP and Punjab	"Buzz" session, interactive lecture	Facilitator/Participants
	• Session 2: Local Government Ordinance and Disaster Risk Management Structure, Roles and Responsibilities in Azad Jammu & Kashmir (AJ&K)	"Buzz" session, interactive lecture	Facilitator/Participants
	Module 3: Community Risk Assessment • Session 1: Introduction to Risk Assessment • Session 2: Hazard Assessment	Interactive lecture Group work, interactive lecture	

Date/Day	Topic/Activity	Methodologies	Key Persons
Day 3	• Session 3: Vulnerability Assessment • Session 4: Capacity Assessment • Session 5: Community Risk Assessment Fieldwork	Interactive lecture, group work, exercise Fieldwork	Facilitator/Participants
Day 4	**Module 4: Community Preparedness & Emergency Response Activities** • Session 1: Overview of Emergency Preparedness & Emergency Response • Session 2: Community Awareness • Session 3: Damages, Needs, Capacities Assessment	Exercise, buzz session, interactive lecture Interactive lecture Buzz session, interactive lecture	Facilitator/Participants Facilitator, participants Facilitator, participants
Day 5	**Module 5: Community Risk Reduction Measures for Drought, Flood, Earthquake, Landslide and Cyclone** • Session 1: Overview of Risk Reduction Measures • Session 2: Community Disaster Risk Reduction Measures for Drought, Flood, Landslide, Drought and Cyclone **Module 6: Community Disaster Risk Management Planning** **Closing Activities**	Group work, interactive lecture Film or slide show(if available), interactive lecture	Facilitator, Participants

Introduction to Community Based Disaster Risk Management

Modular Objectives:

At the end of the module, the participants would be able to:

1. Describe disaster risk management experiences in the community and relate them to the Pakistan disaster situation;
2. Explain the concepts and approaches in disaster risk management.

Number of Sessions: 2

Session 1: Disaster Risk Situation at the Community Level
Session 2: Overview of Pakistan Disaster Situation
Session 3: Terms and Concepts

Duration : 6 Hours

Session-1

Disaster Risk Situation at the Community Level

Session Objectives:

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

1. Describe the present threats, the disasters that happened in the past, and future hazards in the community;
2. Discuss how the community prepared for, responded to, and recovered from these disasters;
3. Explain who was able to assist the community in disaster preparedness, response and recovery.

Key Notes:

- Community profile refers to the geographical or physical location, characteristics, population, economic and health conditions of the people, their culture and values.
- Community disaster risk experience refers to disaster history of the community, damages and losses incurred how the people prepared for, responded to, and recovered from disasters and other threats which caused damages and harm.

Methods:

Group work
Plenary discussion
Paste ups

Process:

1. Introduce the module and its objectives.
2. Introduce session and its objectives.
3. Explain that this session consists of different activities to encourage active participation - group work, plenary presentation and synthesis.
4. Divide the participants into 4-6 groups, depending on the number of participants. Ideal group should have a maximum of 6 members.
5. Assign a facilitator, documenter and reporter for each group. Let the group members discuss among themselves and answer the following questions:

   a. What does the community (land and people) look like?

      - Geophysical / physical characteristic
      - Population
      - Culture and values
      - Economy / livelihood
      - General health conditions
      - Community map indicating landmarks

b. What is the disaster situation in the community?

- What are the disasters experienced in the past?
- When? Where?
- What was damaged?
- Who was affected?
- What are other threats?
- How did the community, households and individuals prepare for, respond to and recover from disaster?
- Who and what agencies assisted the community/district?

6. To present the result of group discussion to the plenary, ask participants to present a **community map** to indicate the areas, facilities and families which have suffered damage and loss from disasters.

   Other creative ways for presenting the results of the group work are:

   - **Role play** of how the community prepares for and responds to disasters;
   - **Interview** about the disaster situation in the community;

7. After each group's presentation, ask the rest of the group members to validate and add on to the data presented.
8. After all groups have reported, ask for questions, clarifications and comments on the group reports.
9. Summarize the community disaster situation. Point out that results of this first workshop will be made as references in the succeeding sessions. More details will be added to the community disaster situation during the discussion in module 3 on community risk assessment.

Duration: 2.5 Hours

Tips to Facilitator:

- Recalling the experiences of the participants about disasters (Before, During and After the disaster and the Recovery period) is an important facet of this session. What actions the people undertook should be highlighted.
- Before the training, ask target participants to bring a community, and if possible, a district profile. A community profile is very important (geographical location, characteristics, population, economic and health condition of the people, culture and values). A spot map of the district helps a lot in understanding the overall condition of the community / district.

Materials Needed:

Easel paper or flip chart sheets
Colored marking pens, crayons
About 10 to 20 pictures and news clippings on clothesline or on the walls of various disasters all over the Pakistan
Straw, clips, masking tape

Cloth for paste-ups
Power point presentation

References:

1. Handouts on Training of Trainers in CBDRM, Thaubang District, Myanmar December 16-21, 2004. Conducted by Center for Disaster Preparedness, Inc.
2. Evaluation of Disaster Response Agencies of Pakistan by OCHA, National Disaster Response Advisor, Islamabad, December 2006.
3. "EM-DAT: The OFDA/CRED International Database, www.em-dat.net

Session-2

Overview of Pakistan Disaster Situation

Session Objectives:

1. At the end of the sessions, the participants would be able to explain the link between the community disaster situation and the disaster situation at the district and national level.

Key Notes:

- Pakistan is vulnerable to different types of hazards like flood, earthquake, landslide, cyclone, and drought. It is one of the five South Asian countries with the highest annual average number of people affected by flood.
- Other events that threaten the country are human induced hazards like health epidemics, civil unrest, terrorism and transport accidents.
- The country is characterized by topographic and climatic contrasts - low rainfall and extreme variation in temperature between the northern and southern areas.
- The topography varies from coastal beaches, sandy deserts, plateaus, plains, high mountains to snow-covered peaks.
- Flood is a condition that occurs when water overflows the natural or artificial confines of a stream or body of water, or when run-off from heavy rainfall accumulates over low-lying areas.
- Landslide refers to a down-slope movement of soil and rock triggered by earthquake, flood or heavy continuous rainfall. For all types of slope failure, soil moisture plays a vital role because water reduces the soil strength and increases the stress.
- Earthquakes are earth vibrations produced when the stability of rock masses under the surface of the earth is disturbed. These disturbances usually occur along existing fault lines or zones of structural weaknesses.
- Drought is a condition of severe climatic dryness causing reduction to soil moisture below the minimum necessary for sustaining plant, animal and human life. The impacts of drought to the community include reduction or loss of water supply for household consumption, livestocks and crop production, income loss to farmers and food shortage.
- Cyclone refers to an intense weather disturbance such as typhoon and storm, with violent winds and torrential rains, often accompanied by thunderstorms similar to whirlwind, tornado or waterspout but having immense dimensions. When the cyclone strikes the land, it causes damages to the population and resources. It also results in flooding and landslide.

Methods:

Group work
Plenary discussion
Paste ups
"Gallery"

Process:

1. Introduce the session and its objectives.
2. "Gallery" or Exhibit. Collect 10 to 20 pictures and news clippings of disasters that occurred in Pakistan. Clip them on a clothesline or paste them up on the walls and ask the participants to view the exhibit.
3. Back on their seats, ask the participants their observations on the following:
   - What are the types of disasters that strike the country?
   - What are the causes?
   - What are the damages caused by disasters?
   - Who are affected?
   - What are the disaster preparedness, emergency responses and recovery activities undertaken by the community?
4. Summarize the participants' observations through a brief interactive lecture on the Pakistan disaster situation. Highlight the provincial, district and community disaster situation as necessary.

Presentation

Pakistan is vulnerable to natural and human induced hazards. Natural events like **floods, earthquakes, landslides, cyclones and drought** threaten the peoples' lives and livelihoods, as well as human instigated hazards such as **fires, civil unrest and terrorism, health epidemics, transport accidents, industrial accidents and war.**

Facilitate participatory discussion on the following:

1. Flood - refer to definition in Key Notes.

Some causes of flood disaster are:

- settlements are located on floodplains
- lack of awareness of flooding hazard
- reduced absorption capacity of land
- food stocks, crops and livestocks are unprotected

Pakistan is one of the five South Asian countries with the highest annual average number of people affected by flood.

Areas particularly affected by flood are Punjab and Sindh, while hill torrents tend to affect the hilly areas of North Western Frontier Province, Balochistan and the northern Federally Administered Tribal Areas. Flood occurs frequently due to storms that originate from the Bay of Bengal during the monsoon from July to September, hitting the north into Kashmir. Floods which occurred in 1950, 1992 and 1998 caused many deaths and huge losses to the national economy. During the decade 1991 to 2000, the estimated damage caused by floods is over Pak Rs 78,000 million .

2. Landslide - refer to definition in Key Notes.

What causes landslide disaster?

- settlements are built on steep slope, softer soils, cliff tops
- settlements are built at the base of steep slopes, or mouths of streams
- from mountain valleys
- there is little understanding of landslide hazard

Landslides frequently occur in the mountainous areas, along watersheds and riverbanks.

3. Earthquake - refer to definition in Key Notes

To date, nobody has been able to predict earthquakes reliably enough and over short enough time scales to allow the evacuation of threatened areas. Some scientists have entirely lost faith in earthquake prediction.

Pakistan lies on a seismic belt and therefore suffers from frequent earthquakes of small magnitudes. Significantly vulnerable are the mountain ranges of Koh-e-Sulieman, Hindu Kush, Korakuram, Quetta, Balochistan, Northern Areas, AJ&K & NWFP.

What causes earthquake disaster?

- settlements are located in seismic areas
- structures are not resistant to ground motion
- lack of access to information about earthquake risks

4. Drought - refer to definition in Key Notes

Droughts are caused by rainfall deficit due to the El Niño phenomena and human induced changes in ground surface, soil change in sea surface temperature, and increase of atmospheric carbon dioxide and greenhouse gases. (Source: CBDRM Training Handout, Center for Disaster Preparedness, Philippines)

An El Niño phenomena refers to the periodic appearance of unusually warm water in the eastern and central Pacific along the equator. The arrival of unusually warm water in this region can cause unexpected and often undesirable shifts in weather systems around the globe, especially in tropical regions. While other areas experience strong cyclone and heavy rains, some experience unusually cold spell, while still other regions are troubled with dry spell and drought.

Drought has become an intermittent problem in Pakistan. It has reported to have brought extensive damages to Balochistan, Sind and Southern Punjab where average rainfall is as low as 200-250 mm. Severe drought periods in 1997 and 2002 affected livelihoods, resulted in human deaths, pushed tens of thousands of people to migrate, and killed large numbers of cattle. The main arid lands are Thar, Cholistan, Dera Ismail Khan, Tharparkar, Kohistan, and western Balochistan. Except Balochistan, all of these areas are within the range of monsoon rainfall, which is erratic and scattered. Hence, these areas suffer drought from 2 to 3 years in every 10 years.

Main arid rangelands in Pakistan are Thar, Cholistan, Dera Ismail Khan, Tharparkar, and western Balochistan. Except for Balochistan, all of these areas are within the range of monsoon rainfall, which however is erratic and scattered. Hence, these areas experience drought for 2 to 3 years in every 10 years.

What are the signals that drought will occur?

- Early termination of the rainy season
- Early onset of the dry season or shorter rainy season
- Delayed onset of rainy season
- Low levels of water in surface sources
- Damaged crops

5. **Cyclone** - refer to definition in Key Notes

Though not a frequent phenomenon, cyclones can cause large-scale damage to coastal areas of Sindh and Balochistan.

What causes adverse effects of cyclones?

- settlements are located in low-lying coastal areas (direct impact)
- settlements are in adjacent areas (heavy rains, flood)
- poor warning system and communication facilities
- structures are weak or of poor quality

Coastal areas are also damaged by torrential rains. In 1999, a cyclone devastated large tracts in coastal districts of Thatta and Badin causing widespread loss to lives and properties.

4. Encourage participants to ask questions or add information to the presentation. End the session by summarizing the main points taken up in the session.

Tips to Facilitator:

- Sessions 1 and 2 can be compressed to save on time and be called Local and National Disaster Situation. Pictures of disasters which happened in the community can be the starting point in the gallery.
- Whether a disaster is major or minor, of national or local in proportion, it is the community who suffers most from its damaging effects. They use coping and survival strategies to face and respond to the situation long before outside help arrives.
- The fresh experience of damage and loss from a disaster generates interest in the community to protect themselves from future harm and suffering.

Duration: 1.5 Hours

Materials Needed:

Flip chart or Easel paper
Colored marking pens
Crayons
About 10 to 20 pictures and news clippings of various disasters all over Pakistan
Straw , clips, masking tape
Power point presentation

References:

1. A Review of Disaster Management Policies and Systems in Pakistan for 2005 World Conference on Disaster Reduction (WCDR), Islamabad, 2005.
2. Evaluation of Disaster Response Agencies of Pakistan, OCHA, National Disaster Response Advisor, Islamabad, December 2006.
3. Drought Disaster Risk Management, Asian Disaster Preparedness Center.

Top 10 Natural Disasters in Pakistan

DISASTER	DATE	KILLED
Earthquake	8 October 2005	73,338
Earthquake	31 May 1935	60,000
Windstorm	15 December 1965	10,000
Earthquake	28 December 1974	4,700
Earthquake	27 November 1945	4,000
Flood	1950	2,900
Flood	8 September 1992	1,334
Flood	2 March 1998	1,000
Flood	June 1977	848
Wind Storm	14 November 1993	609

DISASTER	DATE	TOTAL AFFECTED
Flood	8 September	12,324,024
Flood	9 February 2005	7,000,450
Flood	30 July 1992	6,184,418
Flood	2 August 1976	5,566,000
Flood	August 1973	4,800,000
Earthquake	8 October 2005	2,869,142
Flood	July 1978	2,246,000
Drought	November 1999	2,200,000
Flood	19 August 1996	1,300,000
Flood	22 July 2003	1,266,223

DISASTER	DATE	DAMAGES US $
Earthquake	8 October 2005	5,000,000
Flood	8 September 1992	1,000,000
Flood	August 1973	661,500
Flood	2 August 1976	505,000
Drought	November 1999	247,000
Flood	22 July 2001	246,000
Flood	11 July 1994	92,000
Earthquake	31 January 1991	10,000
Windstorm	12 June 1964	4,100
Earthquake	28 December 1974	3,255

Source: EM-DAT: The OFDA/CRED International Database, www.em-dat.net

Summarized Tables of Natural Disasters in Pakistan

From 1926 to 2006

	# of Events	Killed	Injured	Homeless	Affected	Total Affected	Damage US (000's)
Drought	1	143	0	0	2,200,000	2,200,000	247,000
ave. per event		143	0	0	2,200,000	2,200,000	247,000
Earthquake	22	142,812	88,096	2,853,585	1,294,429	4,236,110	5,019,255
ave. per event		6,492	4,004	129,708	58,838	192,551	228,148
Epidemic	10	283	211	0	16,275	16,486	0
ave. per event		28	21	0	1,628	1,649	0
Extreme Temperature	15	1,406	324	0	250	574	0
ave. per event		94	22	0	17	38	0
Flood	56	11,807	1,562	8,927,685	38,671,447	47,600,694	2,508,030
ave. per event		211	28	159,423	690,562	850,012	44,786
Insect Infestation	1	0	0	0	0	0	0
ave. per event		0	0	0	0	0	0
Slides	13	413	119	3,100	200	3,419	0
ave. per event		32	9	239	15	263	0
Wind Storm	21	11,654	1,183	234,090	715,040	950,313	4,100
ave. per event		555	56	11,147	34,050	45,253	195

Source: EM-DAT: The OFDA/CRED International Database, www.em-dat.net

Session-3

Terms and Concepts

Session Objectives:

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

1. Explain the concepts and activities of disaster risk management, the difference between hazards and disasters, and the relationship of hazard, vulnerability and capacity with disaster risks;
2. Identify various activities before, during and after the disaster;
3. Explain the importance and features of community based disaster risk management (CBDRM).

Key Notes:

- Hazard refers to an event which has the potential for causing injury to life, or damage to property and the environment.
- Vulnerability is a set of factors, conditions and weaknesses which adversely affects the ability of individuals, households, organizations and the community to prepare for, respond to and recover from disaster.
- Capacities are knowledge, skills, resources, abilities and strengths present in individuals, households, organizations and the community which enable them to cope with, withstand, prepare for, prevent, mitigate or recover from a disaster.
- Disaster is a serious disruption of the functioning of a society, causing widespread human, material, or environmental losses which exceed the ability of the affected society to cope using only its own resources.
- Disaster Risk is the likelihood of individuals, households and community suffering damage or loss from a hazard.
- Disaster Risk Management refers to activities to reduce vulnerabilities and increase capacities of the community.
- Community based disaster risk management involves activities and measure to reduce disaster risks which are designed and implemented by people living in at-risk communities based on their urgent and felt needs and capacities.

Methods:

Interactive Lecture
Board work
Group work
Exercise on *"Mr. Hameed's Pick-Up Cab"*

Process:

1. Introduce the session and its specific objectives.
2. Discuss the concepts, processes and examples on community based disaster risk management. Refer to the Key Notes for the definition of terms.

What is a disaster? A disaster occurs when a hazard strikes a vulnerable community with low capacity resulting in damages, loss and disruption in community functioning.

There are 3 types of hazards: natural hazards; human-made hazards; and combination of natural and human-made hazards. War or armed conflict is human-induced while flooding and landslide can be a combination of natural and human factors.

3. What is disaster risk management? Explain that this can be broadly categorized as prevention, mitigation, preparedness in the pre-disaster period, emergency response during the disaster, and rehabilitation and reconstruction for recovery after the event of the disaster. To significantly reduce disaster frequency and loss, a community needs to have preparedness, mitigation, and prevention activities.

4. Briefly discuss the objectives of disaster risk management:

   - To increase capacities and resilience;
   - To reduce vulnerabilities;
   - To avoid or reduce human, physical and economic losses suffered by individuals, families and the community;
   - To speed up recovery;
   - To provide protection to refugees or displaced persons whose lives are threatened by armed conflict.

Prevention (especially for human-induced disasters)

- Safety regulations and measures, assets distribution, agrarian reforms, peace building and conflict resolution.

Mitigation

- Structural measures: dikes, dams, sea wall, safe building construction and strengthening of buildings.
- Non-structural measures: risk assessment, risk reduction planning, building codes land use planning, strengthening food and livelihood security, strengthening health and nutrition, reforestation, environmental protection and management, poverty reduction programs, micro-finance, enabling legislation, advocacy.

Preparedness

- disaster preparedness training
- hazard monitoring
- early warning system
- community awareness
- evacuation to safe evacuation centers/places
- evacuation drill
- stockpiling
- contingency planning
- emergency response training
- first aid training

- search and rescue training
- organizing relief & rescue teams
- strengthening organization and institutional arrangements
- logistics support such as communication, equipment, warehouse, transportation
- networking and coordination

Emergency responses

- search and rescue
- first aid
- damage needs capacity assessment
- evacuation center management
- medical services
- relief distribution
- psychosocial services
- immediate repair of critical facilities such as electricity, potable water supply, communication and connecting bridges and roads, coordination and networking

Rehabilitation/Reconstruction

- clearing of debris
- repair of damaged houses and community facilities
- relocation
- livelihood assistance such as seeds and animal dispersal
- health and sanitation such as provision of water pumps, training of community health workers, herbal gardens

5. What is community based disaster risk management? Stress the importance of community participation in disaster risk management. The goal of CBDRM is building safe, disaster resilient, and developed communities.
6. Through plenary discussion, ask participants why they think CBDRM is important. Encourage a lively and participative exchange of ideas among community members.
7. List down (on the board, flip chart or meta cards) the participants' ideas. Summarize discussion, to include the following points:

Why CBDRM?

- Local population have better understanding and interest in improving local conditions;
- Because of their proximity, local population responds first even before assistance from aid givers arrive at times of crisis.
- When all agencies including international donor organizations have left, it is the local population which strives to rebuild their community.
- CBDM strengthens social cohesion and cooperation within the community and society.

8. Run through the process of community based disaster risk management.

   Usual steps are:

   - initiating the process
   - community profiling or initial understanding of the community
   - community risk assessment
   - initial community disaster (risk) management plan
   - organizing & strengthening community DRM organization
   - community managed implementation of the DRM plan
   - monitoring and evaluation and progressive improvements towards safety, disaster resilience and community development

9. Now that the participants have an initial concept of hazard, vulnerability, capacity, disaster risk, etc., facilitate the conduct of the next exercise. Divide the participants into 4 small groups and distribute the story and photo of "Mr. Hameed's Pick-Up Cab" (presented at the section of Materials Needed).

10. Ask the participants to analyze the story and photo. Ask each group to discuss and answer the following exercises:

    Group 1: Hazard Assessment

    What is the hazard?
    When does it occur?
    Who are potentially affected?

    Group 2: Vulnerability Assessment

    Who or what is vulnerable?
    When are they vulnerable?

    Group 3: Risk Analysis

    Who/What are at-risks in the story?
    What can Mr. Hameed do to reduce the risk?

    Group 4: Disaster risk management activities that would help Mr. Hameed and his passengers avoid disaster:

    - Prevention: (list down as many activities as you can)
    - Mitigation: (list down as many activities as you can)
    - Preparedness: (list down as many activities as you can)

11. Ask each group to present the results of the workshop. Encourage other participants to give comments.

12. Sum up group work results.

13. Open the floor for questions and summarize the key points taken up.

Duration: 2 Hours

Tips to Facilitator:

- For the concepts of hazard, vulnerability, capacity, disaster and disaster risk as well as for the disaster risk management activities in the pre, during, and post disaster period, present examples and cite experiences rather than be absorbed in technical definitions.
- The use of visual aids can facilitate better understanding regarding concepts by the participants.
- Always refer to the key notes and workshop results in defining each term.

Materials Needed:

Flip chart or Easel paper
Colored marking pens
Power Point Presentation
"Mr. Hameed's Pick-up Cab" story and photo

"Mr Hameed's Pick-up Cab"

Mr. Hameed is a pick-up cab driver in Batagram (NWFP). His pick-up is usually overloaded with passengers, especially in the morning and early afternoon when schoolchildren go to and return from school (look at the photo).

He admits that driving the pick-up through the sharp curves overloaded with passengers is risky, more so during the rainy season when the roads are wet and slippery. His pick-up cab

twice skidded, scaring him and his passengers. Luckily, no one was seriously hurt.

Mr. Hameed wants to do something about his daily pick-up trips, considering the possible risks he and his passengers may encounter.

References:

1. Handouts on Training of Trainers in CBDRM, Thaubang District, Myanmar December 16-21, 2004. Conducted by Center for Disaster Preparedness, Inc.

2. Citizenry-Based Development Oriented Disaster Response, Annelies Heijmans & Lorna P. Victoria.

3. Introduction To Disaster Preparedness: Disaster Preparedness Training Programme, International Federation of Red Cross and Red Crescent Societies.

4. Field Practitioners' Handbook, Imelda Abarquez & Zubair Murshed, ADPC, 2004.

Disaster Risk Management System in Pakistan

Modular Objectives:

At the end of the module, the participants would be able to:

1. Understand the local government system, structure, roles and responsibilities in areas of disaster risk management, as provided under the local government ordinance;
2. Understand the functions, roles and responsibilities of public departments and local authorities with regard to disaster risk management.

Number of Sessions: 2

Session 1: Local Government Ordinance and Disaster Risk Management
Session 2: Local Government System and Disaster Risk Management in Azad Jammu & Kashmir (AJ&K)

Duration : 1.5 Hours (per session)

Session-1

Local Government Ordinance and Disaster Risk Management

Session Objectives:

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

1. Understand disaster risk management-related roles and responsibilities of district nazim and district council, tehsil nazim and tehsil council, union nazim and union council, community based organizations (CBOs) and citizen community boards (CCBs);
2. Identify the roles and responsibilities of public departments with regard to disaster risk management.

Key Notes:

- District/Municipal Disaster Management Authority's primary task is to formulate and implement district and municipal disaster risk management plans.
- Tehsil Nazim/Council would lead the disaster mitigation and relief operations and would work in consultation with the District Disaster Management Authority
- Union Nazim shall monitor and report to the concerned authorities in relation to land use and building laws, environment and health hazards.
- Union Council is tasked to facilitate the formation and functioning of the Citizen Community Boards; main responsibility also includes approving the annual development plan and budgetary proposals of the Union Administration.
- Village Council and Neighbourhood Council are tasked to prevent and mitigate disasters in the communities.
- Citizen Community Board shall be set up to organize communities and mobilize resources for issues in local level disaster risk management.
- Disaster Prepared Community has the following features:
  - Community level policies for disaster preparedness
  - Hazard assessment
  - Early warning system
  - Community awareness
  - Training and education
  - Disaster preparedness plan
  - Information management system
  - Networking/linkages
  - Organized and functional community disaster management councils/organizations

Methods:

- "Buzz" Session
- Interactive Lecture

Process:

1. Discuss the objectives of the session.

2. Review the participants' specific roles and functions before, during and after the latest disaster that hit their areas (Module 1, Session 1). List down on the board their specific roles and responsibilities and explain to the participants that by doing so, one has become a disaster manager, working towards transforming the community into a disaster prepared community.

3. Ask participants to conduct a "buzz session". A "buzz session" is done by pairing with the person on his/her right, discuss and come up with ideas on requirements of a disaster prepared community. Ask each team to share their ideas to the big group. Note down on the board, flip chart or meta cards. Ask questions when necessary, while encouraging active participation. Summarize discussion through a presentation (using flip charts, meta cards, illustrations or power point). The standards of a disaster prepared community include the following:

   - Community level policies for disaster preparedness
   - Hazard assessment
   - Early warning system
   - Community awareness
   - Training and education
   - Disaster preparedness plan
   - Information management system
   - Networking/linkages
   - Organized and functional community disaster management councils/organizations

4. Explain that when a disaster occurs in the community, people expect their leaders (formal and informal) to take immediate actions in emergency response and recovery/rehabilitation. Local authorities and public departments are working on their roles and responsibilities to assist the communities to be better prepared to disasters and take appropriate actions for emergency response and recovery.

5. Facilitate an interactive discussion on the following:

   Presentation

   To understand the disaster risk management system at the local level, the community may refer to 2 documents of the Government of Pakistan: the **National Disaster Risk Management Framework (2006),** and the **SBNP Local Government Ordinance, 2001.** The following is a brief discussion related to disaster risk management structure, roles and responsibilities as contained in the documents:

What is the purpose of the National Disaster Risk Management Framework? This framework was formulated to guide the work of the entire system in the area of disaster risk management. Roles and responsibilities of key national, provincial and local stakeholders have been defined in the framework. Actions to promote disaster risk assessment include:

- assess vulnerability of people, infrastructure, assets and services related to their sector
- develop disaster risk management plans
- integrate vulnerability reduction measures in new construction
- allocate funds for disaster risk management in annual development budgets.

Other responsibilities include:

- conduct post disaster damage and loss assessments
- organize emergency response as per the mandate of the department
- organize recovery and rehabilitation as per the mandate.

What are Structures, Roles and Responsibilities of Local Authorities? The following is a summarized presentation of the structures, roles and responsibilities of the local authorities as contained in the framework and the Local Government Ordinance:

A. National Disaster Management Framework, 2006

District Disaster Management Authority. As per the National Disaster Management Ordinance of 2006, the District Disaster Management Authority will be established by the provincial government in hazard prone areas on a priority basis. The District Authority is comprised of the Nazim, District Coordination Officer (DCO), District Police Officer and the EDO Health. The District Nazim can appoint other officers as members of the DDMA. They may include EDOs from the Education and Agriculture Departments, Red Crescent, NGOs, media, private sector, fire services, or any other local stakeholders.

The DDMA is tasked to:

- Formulate district disaster risk management plan, based upon local risk assessment, and coordinate its implementation;
- Review development plans of government departments and provide guidance on mainstreaming disaster risk reduction measures in these plans;
- Continuously monitor hazards, risks and vulnerable conditions within the district and municipality;
- Prepare guidelines and standards for local stakeholders on disaster risk reduction;
- Conduct education, training and public awareness programs for local officials, stakeholders and communities;
- Encourage involvement of community groups in disaster risk reduction and response by providing them necessary financial and technical assistance for implementing community level initiatives;
- Examine construction in the area and if hazard safety standards have not been followed, direct the relevant entities to secure compliance of such standards;
- Undertake appropriate preparedness measures at district level e.g. maintain an early warning system, identify buildings to be used as evacuation sites, stockpile relief and rescue materials and identify alternative means for emergency communications;

- In the event of a disaster, organize emergency response through the District Emergency Operations Centre (DEOC);
- Keep linkages with the Provincial Disaster Management Authority and the Relief Department.

Tehsil Structures. Tehsil Nazim would lead the disaster mitigation and relief operations with the assistance of Tehsil Municipal Officer and would work in consultation with the District Disaster Management Authority. Key players are the CBOs, traditional leaders, religious organizations, NGOs and extension workers. They are responsible for conducting risk assessment in their areas as well as operational control in the event of disasters or emergencies.

B. Local Government Ordinance, 2001

The following are the roles and responsibilities of local authorities with regards to disaster risk management, as contained in the Local Government Ordinance, 2001 (Sind/ Balochistan/North-West Frontier/Punjab):

Zila Nazim: Take charge, organize and prepare for relief activities when a disaster occurs.

Zila Council in a City District: Reviews, develops and implements rules and by-laws governing land use, housing, markets, zoning, environment, traffic, infra-structure and public utilities.

Tehsil Municipal Administration: Controls and develops water supply; responsibility also includes fire fighting in the event of fire in the communities.

Tehsil Council: Prepares Tehsil development plan and maintenance of programmes/projects.

Union Administration: Assists relevant authorities in disaster preparedness and emergeny operations.

Union Nazim: Monitors and reports to the concerned authorities in relation to land use and building laws, environment and health hazards.

Union Council. Facilitates the formation and functioning of the Citizen Community Boards; main responsibility also includes approving the annual development plan and budgetary proposals of the Union Administration

Village Council and Neighbourhood Council: Prevents and mitigates disasters in the communities; among its functions is to make arrangements to prevent water contamination and ensure sanitation through proper disposal of garbage

Opportunities for Enhancing Community Based Initiatives Through Community Based Organizations (CBOs) and Citizen Community Boards (CCBs):

Both documents promote the enhancement of community level disaster risk management activities through the Community Based Organizations (CBOs) and Citizen Community Board (CCBs).

- In the **NDMF**, the capacity of existing community organizations will be developed and enhanced by District and Tehsil authorities - the DDMA is tasked to "encourage involvement of community groups in disaster risk reduction and response by providing them necessary financial and technical assistance for implementing community level initiatives."

- CBOs will be trained about local early warning system, evacuation, first aid, search and rescue, fire fighting etc.

- Linkages would be developed between CBOs and relevant local agencies e.g. agriculture, banks, health and veterinary services to promote disaster preparedness.

- Skills and knowledge of CBO leadership will also be developed in financial management, people management, resource mobilization, interpersonal communication and presentation and negotiation skills.

- In the absence of community organizations, new groups would be established to work on disaster risk management. The provision of Citizen Community Boards (CCBs) in Local Government Ordinance (LGO 2001) provides a good opportunity to organize communities and mobilize resources for issues like local level disaster risk management.

- Community members can form themselves into CCBs to work on disaster risk management activities and avail financial assistance from the government i.e., 80% of total project cost can be financed by the government.

Roles and Responsibilities of Public Departments

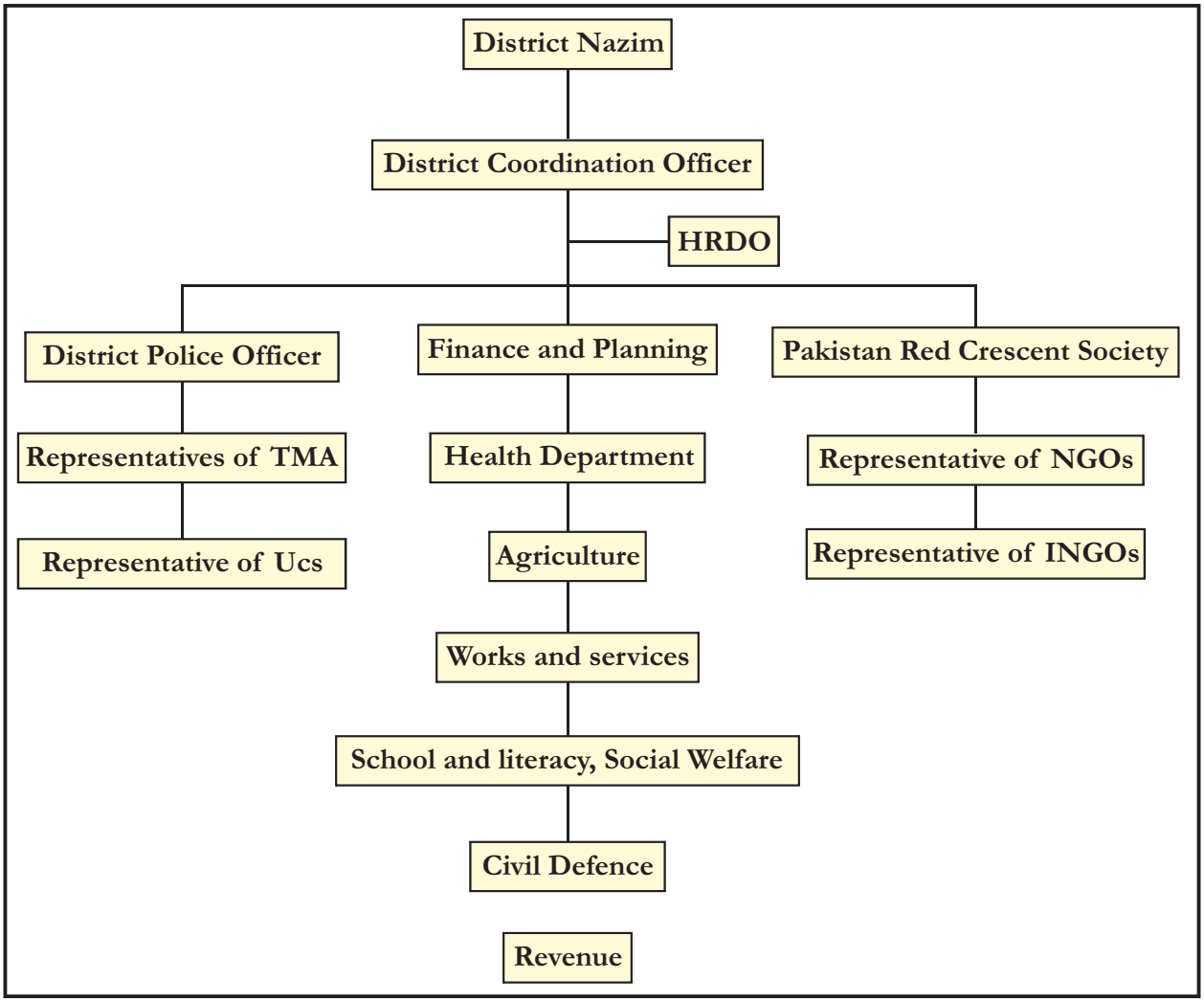
Public Department	Before Disaster	During Disaster	After Disaster
Civil Defence Department	- Facilitate training on rescue and relief work	- Save lives by conducting search & rescue; - Provide first aid to injured persons and transport them to nearest hospital; - Coordinate transport of relief goods to affected communities; - Supplement disaster response equipment of the armed forces.	- Assist communities in clearing of debris brought about by the disaster.
Education Department	- Add features in schools in hazard prone areas for use as emergency shelters such as facilities for water, sanitation and cooking; - Take actions to reduce the vulnerability of the built infrastructure of the education sector in the vulnerable areas, e.g., retrofitting, renovation, rebuilding, etc.; - Conduct orientation programmes on disaster risk reduction to raise awareness of the education authorities, professors and teachers; - Develop curriculum for schools, colleges and universities on disaster risk reduction, particularly in hazard-prone areas.		

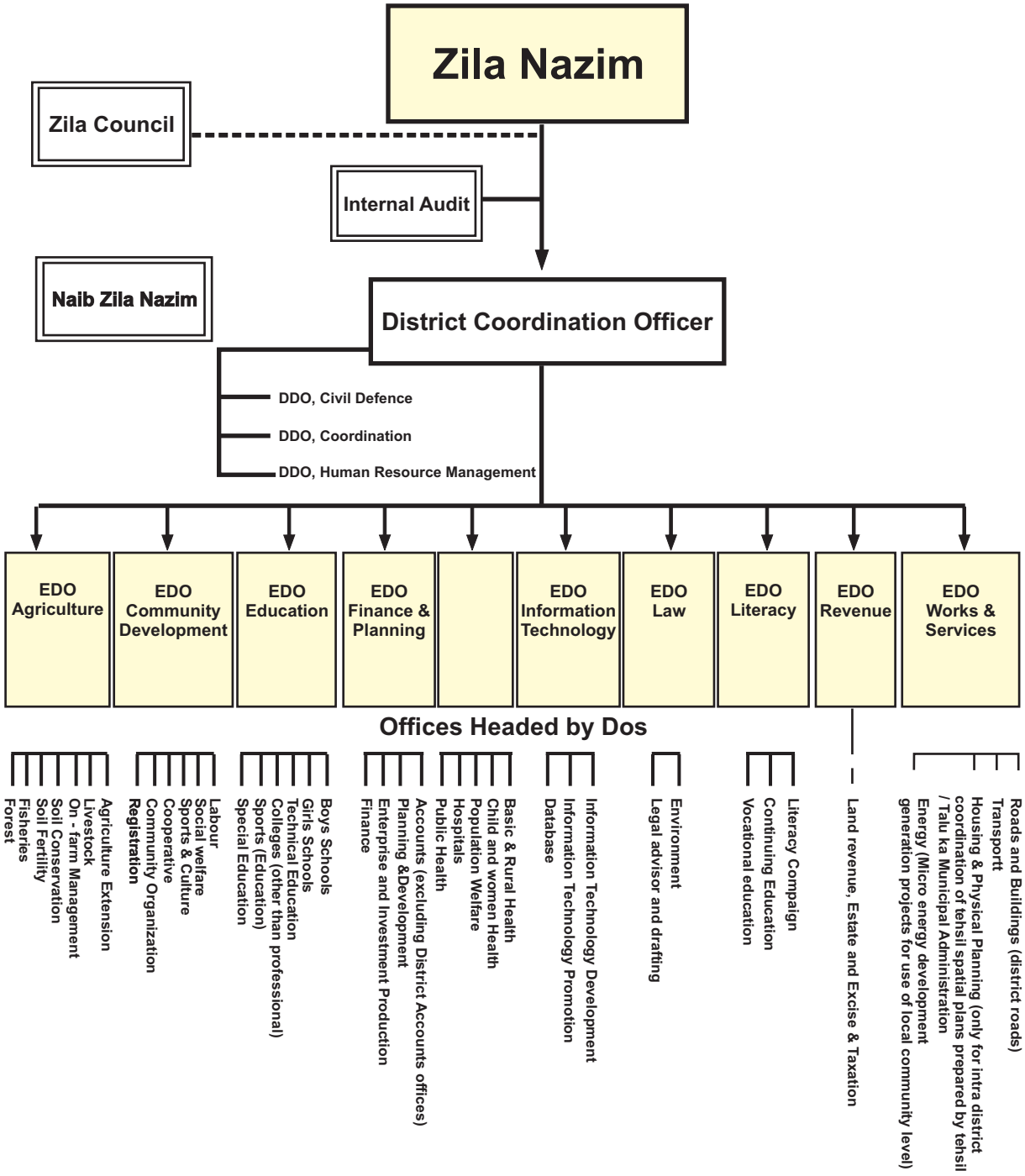
Public Department	Before Disaster	During Disaster	After Disaster
Forestry Department	- Undertake vulnerability assessment of natural resources (forest, lakes, streams, mangroves, coral reefs, protected areas, coastal areas) to natural and human induced hazards; - Implement programmes for conservation and rehabilitation of natural resources in order to reduce risks of natural hazards, e.g., reforestation, mangrove plantation, etc.		- Develop mechanisms for assessment of environmental losses and damages in the aftermath of disasters and their rehabilitation.
Revenue Department	- Allocate financial resources, based upon plans of the DDMA and other relevant ministries and departments for implementation of disaster risk management activities as part of the development plans; - Incorporate provisions in micro-finance schemes to have flexible repayment schedules for those affected by disasters.		
Agriculture Department	- Promote contingency crop planning to deal with yearly climate variations and crop diversification including use of hazard resistant crops (e.g., drought resistant) to deal with shifts in climate patterns;	- Assist in saving crops, agricultural land and livestocks in disaster situation	- Assess the extent of damage and loss to crops and livestock; - Provide inputs like seeds, fertilizers and agriculture equipment to those affected by disasters.

Public Department	Before Disaster	During Disaster	After Disaster
	- Ensure sustainable livelihoods in areas of recurring climate risks (e.g., arid and semi arid zones, flood and drought prone areas) by promoting supplementary income generation from off-farm and non-farm activities (e.g., animal husbandry); - Advise communities on how to save crops, agricultural land and livestock.		
Health Department	- Stockpile of medical supplies; - Enhance disaster management capacities of health workers.	- Provide timely first aid and medical services and supplies to affected population.	- Devise strategies for community involvement in all aspects of emergency preparedness, response and recovery plans.
Works and Services Department	- Supervise the protection of roads and structures in the community.	- Coordinate assessment of the extent of damage to roads and structures in the community.	- Organize emergency repairs to restore public transport routes.
Information and Technology Department	- Implement programs on awareness raising of vulnerable communities in high risk areas; - Develop a communication action plan to ensure availability of communication services in case a disaster occurs.		

Public Department	Before Disaster	During Disaster	After Disaster
School & Literacy Department	- Conduct assessment to identify most vulnerable social groups in hazard-prone areas; - Allocate funds for disaster preparedness and vulnerability reduction activities for the most vulnerable social groups; - Coordinate with other departments in providing relief assistance when a disaster occurs.		- Assist in rehabilitation of vulnerable groups.
Finance and Planning	- Assist communities in the conduct of risk assessment; - Facilitate risk assessment in the district.	- Mobilize resources of the district by coordinating with other departments in providing emergency assistance to affected population .	- Assist DDMA in evaluating damages and losses .
Fire Brigade		-Rescue and evacuation; - communicate to DEOC for additional resources required.	

DDMA Structure and Members





6. After the presentation, encourage questions from the participants and facilitate interactive discussion.

7. Summarize the discussion.

Duration: 1.5 Hours

Tips to Facilitator

- Invite government officials and Union Council leaders to attend the discussion of this module to clarify and elaborate on the topics;
- Most frequently asked question is budget for emergency response and disaster preparedness. As per Government Ordinance No. XL of 2006:

  "the Provincial Governments shall, after immediately notifications issued for constituting the Provincial Authority and district Authorities, establish for the purposes of this Ordinance the Provincial Disaster Management Fund;
  "the Provincial Disaster management Fund shall be administered by the Provincial Authority towards meeting the expenses for emergency preparedness, response, mitigation, relief and reconstruction in the Province.
  "the Federal Government and the Provincial Government shall, in their annual budgets, make provisions for the purposes of carrying out the activities and programmes set out in the disaster management plan."
- Discussion of this session is exclusively for SBNP areas. For AJ&K, please refer to session 2.

Materials Needed:

Easel paper or flip chart sheets
Colored marking pens
Power point presentation

References:

1. National Disaster Management Framework, October 2006.
2. The SBNP Local Government Ordinance 2001.
3. Review of Disaster Management Policies and Systems in Pakistan for WCDR 2005, Islamabad.
4. Government Ordinance No. XL of 2006.

Session-2

Local Government System and Disaster Risk Management in Azad Jammu & Kashmir (AJ&K)

Session objective:

1. At the end of the session, the participants would be able to understand the disaster risk management-related structure, roles and responsibilities of public departments in AJ&K.

Key Notes

- **Public departments** in AJK and their roles and functions related to disaster risk management:

  Relief and Rehabilitation Commissioner: Heads the entire Emergency Response mechanism in the State and is charged with the task of coordinating and updating the emergency response.

  Camp Management Organization (CMO): Provides emergency assistance and life sustaining services to the Internally Displaced Persons (IDPs) in camps, which host IDPs from the Indian Held Kashmir (IHK), those who have been constant victims of cross-border firing around the Line of Control (LoC) and those affected by the 2005 earthquake.

  Revenue Department: Coordinates with other departments to provide relief and rehabilitation services.

  Local Government and Rural Development Department (LG&RD): Stockpiles and distributes food and other items.

  Education Department : Designs disaster management programme for teachers and students and incorporate it into the school curriculum.

  Health Department: Stockpiles medical supplies and provision of timely first aid, medical services and supplies to affected population.

  Agriculture Department: Advises communities on crop diversification to deal with climate variations (e.g., producing drought resistant crops) & how to save crops, agricultural land and livestock in case a disaster occurs.

  Planning Department: Assists communities in the conduct of risk assessment and in evaluating damages and losses after a disaster; coordinates with other departments in providing emergency assistance to affected population.

  Civil Defence Department: Facilitates training on rescue and relief work and conduct search and rescue during a disaster situation.

  Food Department: Stockpiles food supplies and distribution of food aid to affected population.

  Social Welfare and Women Development Department: Coordinates and networks with NGOs, CBOs and promotion of social welfare especially for the vulnerable groups (women and children), and running protection centres for women

and orphanage.

Fire Brigade: Coordinates with Civil Defence on rescue, evacuation and salvage operations.

Police Department: Ensures law and order and provides easy access to rescue and relief personnel/vehicles during emergency period.

Methods:

Interactive lecture
"Buzz" session

Process:

1. Introduce the session objectives to the participants.
2. Review the participants' specific roles and functions before, during and after the latest disaster that hit their areas (module 1, session 1). List down on the board their specific roles and responsibilities and explain to the participants that by doing so, one has become a disaster manager, working towards transforming the community into a disaster prepared community.
3. Ask participants to conduct a "buzz session." A "buzz session" is done by pairing with the person on his/her right. Discuss and come up with ideas on requirements of a disaster prepared community. Ask each team to share their outputs to the big group. Note down on the board, flip chart or meta cards. Ask questions when necessary, while encouraging active participation. Summarize discussion through a power point presentation. The standards of a disaster prepared community include the following:

   - Community level policies for disaster preparedness
   - Hazard assessment
   - Early warning system
   - Public awareness
   - Training and education
   - Disaster preparedness plan
   - Information management system
   - Networking/linkages
   - Organized and functional community disaster management councils

4. Explain that when a disaster occurs in the community, people expect their leaders (formal and informal) to take immediate actions in emergency response and recovery/rehabilitation. Local authorities and public departments are working on their roles and responsibilities to assist the communities to be better prepared to disasters and take appropriate actions for emergency response and recovery.

5. Facilitate an interactive discussion on its Public Departments:

Public Department	Before Disaster	During Disaster	After Disaster
Relief and Rehabilitation Commission		- Supervise and coordinate the emergency response	
Camp Management Organization (CMO)		- Provide emergency assistance and life sustaining services to the Internally Displaced Persons (IDPs) in camps, which host IDPs from the Indian Held Kashmir (IHK); - Take charge of running the camps for the displaced population and provide essential utilities; - Liaise with INGO's, local NGO's and UN agencies, make need assessment and provide resources.	
Revenue Department		Provide relief and rehabilitation services.	
Local Government and Rural Development Department (LG&RD)	- Stockpiling of food and other items.	- Data collection and reporting. - Distribution of food/relief items - Provision of water in camps.	-Rehabilitation of rural access roads (link roads); -Rehabilitation of water supplies.
Education Department	-Design disaster management program for teachers and students and incorporate it into the school curriculum. - Add features in schools in hazard prone areas for use as emergency shelters such as facilities for water, sanitation and cooking;		

Public Department	Before Disaster	During Disaster	After Disaster
	- Take actions to reduce the vulnerability of the built infrastructure of the education sector in the vulnerable areas, e.g., retrofitting, renovation, rebuilding, etc.; - Conduct orientation programs on disaster risk reduction to raise awareness of the education authorities, professors and teachers.		
Health Department	- Stockpile of medical supplies; - Enhances disaster management capacities of health workers.	-Provide timely first aid and medical services and supplies to affected population; - Coordinate with other line agencies in providing the community with food, shelter and other forms of assistance as required.	
Agriculture Department	- Promote contingency crop planning to deal with yearly climate variations and crop diversification including use of hazard resistant crops (e.g., drought resistant) to deal with shifts in climate patterns; - Ensure sustainable livelihoods in areas of recurring climate risks (e.g., arid and semi arid zones, flood and drought prone areas) by promoting supplementary income		- Provide inputs like seeds, fertilizers and agriculture equipment to those affected by disasters.

Public Department	Before Disaster	During Disaster	After Disaster
	generation from off-farm and non-farm activities (e.g., animal husbandry); -Advise communities on how to save crops, agricultural land and livestock.		
Planning	- Assist communities in the conduct of risk assessment; - Facilitate risk assessment in the district; - Mobilize resources of the district by coordinating with other departments in providing emergency assistance to affected population.	- Mobilize resources of the district by coordinating with other departments in providing emergency assistance to affected population.	- Assist communities in evaluating damages and losses.
Civil Defence	- Facilitate training on rescue and relief work; - Stockpile food supplies.	-Save lives by conducting search & rescue; -Provide first aid to injured persons and transport them to nearest hospital; - Coordinates transport of relief goods to affected communities; - Distribute food aid to affected population.	- Supplement disaster response equipment of the armed forces - Assist communities in clearing of debris brought about by the disaster
Social Welfare and Women Development Department			- Coordinate and networks with NGOs, CBOs and promotion of social welfare especially for the vulnerable groups (women and children), and running protection centres for women and orphanage.

Public Department	Before Disaster	During Disaster	After Disaster
Fire Brigade Department		- Rescue and evacuation; - Communicate to DEOC for additional resources required.	
Police Department		- Cordoning of area to restrict movement of vehicular and pedestrian traffic; - providing easy access to rescue and relief personnel vehicles; - maintain law and order.	

What are the opportunities for enhancing community based initiatives?

- In the NDMF, the capacity of existing community organizations will be developed and enhanced by District and Tehsil authorities - the DDMA is tasked to "encourage involvement of community groups in disaster risk reduction and response by providing them necessary financial and technical assistance for implementing community level initiatives."
- Community Based Organizations (CBOs) will be trained on local early warning system, evacuation, first aid, search and rescue, fire fighting etc.
- Linkages would be developed between CBOs and relevant local agencies; e.g. agriculture, banks, health and veterinary services to promote disaster preparedness.
- Skills and knowledge of CBO leadership will also be developed in financial management, people management, resource mobilization, interpersonal communication and presentation and negotiation skills.
- Community members can form themselves into Citizen Community Board (CCBs) CCBs to work on disaster risk management activities and avail financial assistance from the government i.e., 80% of total project cost can be financed by the government.

6. After the presentation, encourage questions from the participants and facilitate interactive discussion.

7. Summarize the discussion.

Duration : 1.5 Hours

Tips to Facilitator:

- Invite government officials and Union Council leaders to attend the discussion of this module to clarify and elaborate on the topics;
- Discussion of this session is exclusively for AJ&K areas. For SBNP, please refer to session 1.

Materials Needed:

Easel paper or flip chart sheets
Colored marking pens
Power point presentation

References:

Review of Disaster Management Policies and Systems in Pakistan for WCDR 2005, Islamabad.

National Disaster Management Framework, October 2006.

AJ&K Government & its Departments, Zuniga, Z. & Butt, I., 2007.

NWFP Government & Its Departments, Puno, N. & Gulzar, A., 2007.

Community Risk Assessment

Modular Objectives:

At the end of the module, the participants would be able to:

1. Explain the importance of community risk assessment and people's perception of risks;
2. Describe the process of community risk assessment;
3. Describe and use various tools in community risk assessment;
4. Explain why gender, age, class, culture and ethnicity should be considered in assessing risks.

Number of Sessions: 5

Session 1: Introduction to Risk Assessment
Session 2: Hazard Assessment
Session 3: Vulnerability Assessment
Session 4: Capacity Assessment
Session 5: Community Risk Assessment Fieldwork

Duration : 8.5 Hours

Session-1

Introduction to Risk Assessment

Session Objectives:

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

1. Explain the purpose of community risk assessment;
2. Identify the components of risk assessment;
3. Explain why gender, socio-economic status, educational background, age, culture and ethnicity should be considered in risk assessment.

Key Notes:

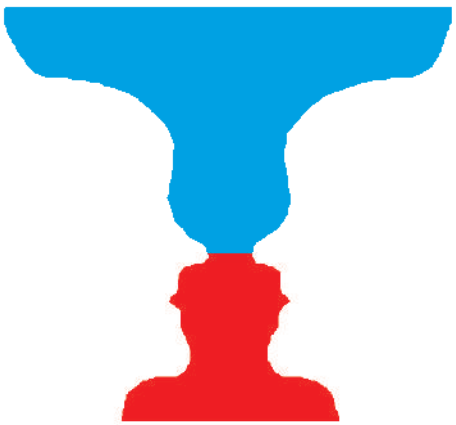
- Risk refers to the probability of something happening in the future, which has a negative consequence.
- Assessment is a participatory process undertaken in phases, its interpretation and analysis, and involves on-the-spot collection of information from various sources.
- Community risk assessment is a participatory and systematic process carried out by members of the community to identify and analyze disaster risks. It unites the community in understanding their disaster situation.
- Community risk assessment involves four interrelated components: hazard assessment, vulnerability assessment, and people's perceptions of disaster risks.

Method

Interactive lecture
Exercise: "What do you see?"

Process

1. Introduce the modular and session objectives.
2. Show the picture below and ask the participants "What do you see?"



3. Ask them to point the features of what they see. If they look at the blue object, they may answer: a bottle, a vase, a fountain, etc.; if they look at the red space, they may see images of women. Ask the participants to explain why there are differences in what they see in the picture.

   Relate the differences in what the participants see in the picture to the varying perceptions of disaster risk among people living in the same community.

4. Show the photo below of a community situated close to a river bank. Living close to the river may be considered as high-risk by most people. For people living in this community however, the river provides them opportunities - food, livelihoods, area for bathing, washing clothes, etc.

   Summarize that people's perception of disaster risks is influenced by age, educational background, occupation, length of stay in the community, economic status, culture, ethnicity and gender. Likewise, local people and outsiders have differences in perceiving the disaster risks of the community. It is important to recognize the differences in perception, because it is the basis for people to identify actions that will address disaster risks.

5. Link the discussion of different perceptions of disaster risks to the purpose of risk assessment:
   - It unites the people in understanding disaster risks confronting their community.
   - It is the basis for sound planning of appropriate and adequate risk reduction measures.

6. Community risk assessment also aims to:
   - Contribute to the community's awareness of threats they did not know before;
   - Provide information which can be used in situational analysis for community development programmes;
   - Provide baseline data or indicators to measure changes in people's vulnerability and capacity over time.

7. Ask participants to recall the discussion on basic disaster risk management concepts in Module 1 and run through the three components of disaster risks: hazards, vulnerability and capacity. Stress that community risk assessment is assessing the hazards, vulnerability and capacity, with the consideration of the people's perceptions of risk.

9. Tell participants that details and tools for participatory risk assessment will be discussed in the following sessions.

Summary Points:

Community disaster risk assessment:

- assesses the hazard, vulnerability and capacity, with consideration of people's perceptions of risk;
- must be participatory i.e., risk assessment must involve the community members as well as key stakeholders;
- uses a variety of participatory rural appraisal tools in data gathering and analysis;
- must combine technology which is brought by outsiders to the community as well as indigenous knowledge and experiences by the community members.

Duration: 1 Hour

Tips to Facilitators:

- At the end of the disaster risk assessment process, the participants should be able to accomplish the following objectives and outputs:

Disaster Risk Assessment Design

	Objectives	Outputs
Step 1	Describe the hazards in the community	List and nature of hazards
Step 2	Conduct hazard mapping	Community hazard map Community resource map Digitized map
Step 3	Describe vulnerabilities and capacities in the community; of men and women	Capacities and Vulnerabilities Analysis (CVA)
Step 4	Determine disaster risks	Comprehensive list of risks faced by the community
Step 5	Rank disaster risks	Prioritized list of risks
Step 6	Decide on acceptable level of risk	Agreed levels of risk for security of family and community
Step 7	Decide whether to prevent, reduce, transfer, or live with disaster risks	Agreed strategies

- Distribute participatory tools for hazard, vulnerability and capacity assessment as there will be no time to discuss each tool thoroughly. It will be helpful if the participants take time to study the tools before the next three sessions.

- Simplified scientific techniques for assessment of hazards (e.g., water level for flood monitoring) can be included in discussing this session.

Materials Needed:

Colored marking pens
Picture for "What do you see?" exercise
Photos and other visual aids for interactive lecture
Easer paper or flip chart sheet

Session-2

Hazard Assessment

Session Objectives:

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

1. Identify and rank the hazards in the community;
2. Describe the nature and behavior of such hazards;
3. Discuss the participatory tools which can be used in hazard assessment.

Key Notes

- Hazard assessment involves the identification of hazards or threats which may damage the community e.g., infrastructure, facilities, and environment.
- Participatory tools in hazard assessment include time line of disasters for disaster history, seasonal calendar for seasonality of hazards or threats, hazard map to pinpoint areas in the community which are prone to or threatened by hazards, hazard assessment matrix to determine the nature and behavior of hazards.

Method

Interactive lecture
Group work in conducting hazard assessment

Process

1. Present the session objectives to the participants.
2. Ask the participants to recall the disasters that they have experienced in the past. After identifying the disaster (e.g., flood), start the follow-up discussion by asking:
   - How did they know that flood was coming? What are the warning signs/signals?
   - When does it usually occur (what months)?
   - How often does it happen in a year?
   - How long does the flood occur (1 or 2 days)?
   - What do they do when they hear, feel, see the warning signs/signals?
3. List down the participants' responses to the questions above and stress the importance of understanding the nature and behavior of hazards and threats, to prepare for and to reduce damage and loss from disasters.
4. Connect the discussion to hazard assessment and discuss the following:

   What is hazard assessment? Further explain that hazard assessment looks into the disaster history of the community what disasters have been experienced in the past, as well as other hazards or threats which the community may not be aware of.

   Hazard assessment also involves the study of the nature and behavior of the hazards or threats taking into consideration the following:

- **Origin:** the factor or factors which create/result in a hazard;
- **Warning signs & signals**: scientific and indigenous/local signs that hazard is likely to happen;
- **Forewarning**: time between warning and impact;
- **Forces:** factors which can damage: wind (for typhoon and tornado); water (heavy rain, flood, river overflow, giant waves, dirty water causing epidemic); land (slide, erosion, mudflow), seismic (ground shaking, ground rupture, liquefaction, tsunami), conflicts (war, terrorism); industrial/technological (pollution, radioactive leaks);
- **Speed of onset**: rapidity of arrival of hazard and its impact (very slow such as 3-4 months in the case of drought; 3-4 days in the case of cyclone; very rapid for earthquake;
- **Frequency**: does the hazard occur seasonally, yearly, once every 10 years, once in a lifetime, etc.;
- **Seasonality**: does the hazard occur at a particular time of the year (wet or dry season; in November to April)**;**
- **Duration**: how long the hazard is felt (earthquake and after shocks; days/weeks/months that area is flooded**.**

What are other factors to consider when doing hazard assessment? In doing hazard assessment, the following have also to be considered:

- Secondary hazards: earthquake can cause landslides; cyclone can cause flooding and landslide; flood can cause epidemics;
- intensities of hazards: earthquake and cyclone;
- Hazards or threats which the community has not experienced yet, combining scientific and technical information with local knowledge;
- Use of hazard assessment results for community awareness, designing early warning, and evacuation plans.

5. Explain that there are different tools in collecting and analyzing data on hazards. Refer to materials/references provided in the Participant's Workbook. Have a brief discussion on some of the tools:

   5.1 **Hazard map** is prepared to pinpoint areas in the community which are prone to or threatened by hazards.

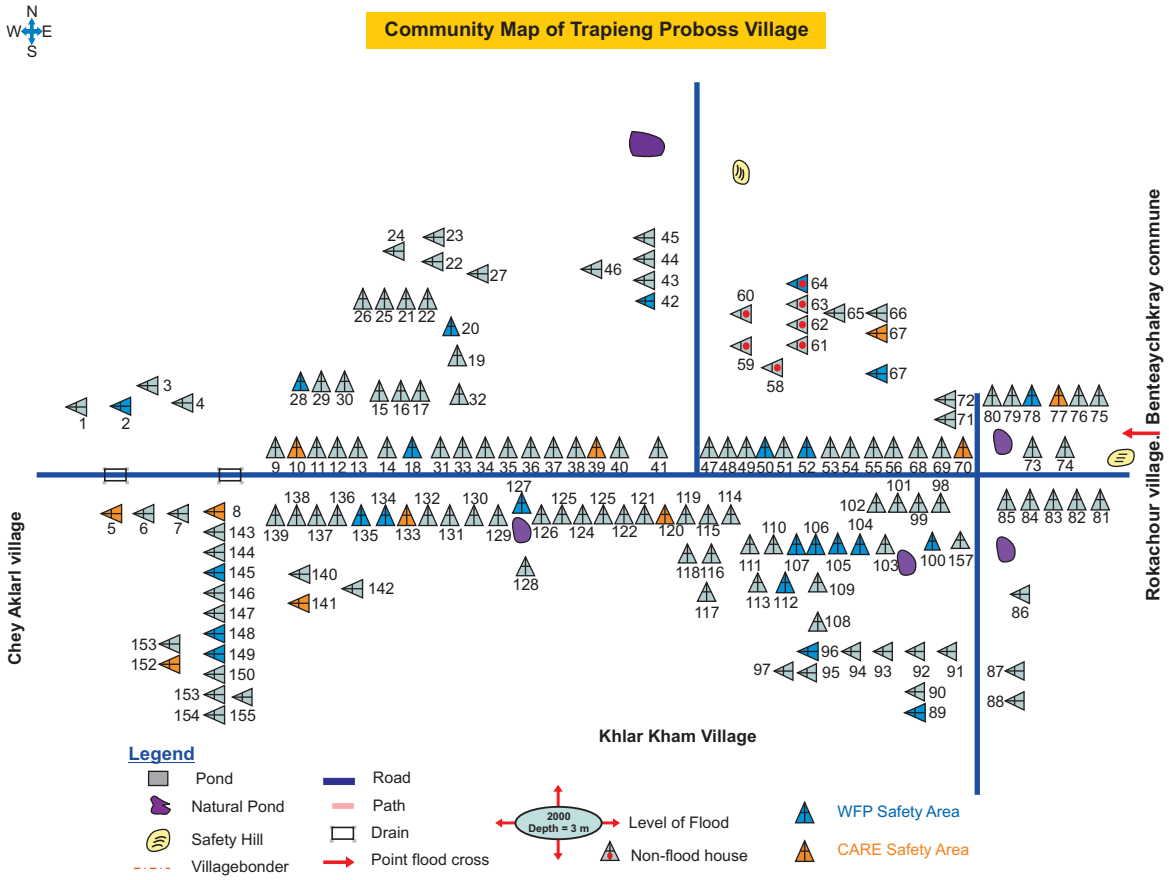
   Tips in doing the community hazard map:

   A. The base map is the **community map** (prepared in module 1, session 1) indicating the areas, facilities, houses, structures and other resources in the community. Refer to next page for an example of a community map.

   B. From the community map, overlay one plastic sheet and use colored pen to mark the particular areas, houses, facilities that are vulnerable to a specific hazard. Put one plastic sheet overlay and use one color per hazard. The hazard map shown at the next page uses a blue marker pen to indicate the areas affected by flood.

   Remember to use different plastic sheet and color to indicate other hazards.

   C. Hazard map must be hazard specific. Remember that a hazard has its own nature and behavior.



D. Take note of the following:

- Orientation: indicate the north point of the map
- Reference points: landmarks like school, river, mountains, roads
- Legend: symbols and captions
- Political boundaries
- Safe and unsafe areas
- Others: street names, minor captions

Plan ahead! How big a map do we want to make? Make the legends first, including agreeing on colors to use.

5.2 Historical profile of disasters for disaster history. This is a very simple tool that narrates the disaster history and significant events that happened in the community. One column gives the year and the other column lists down the events that took place.

Present to the participants the following historical profile of disasters prepared by community members whose village was damaged by war.

Year	Event
1975 – 1978	Indonesian occupation. Many houses were burned, people fled to the forest. The separatist E. Timorese government, Fretelin and its military arm, Falentil were formed.
1979 – 1980	People from Daudere village fled to Moro district. There were no schools & clinics. Many people were hungry and sick.
1981- 1982	Led by chief of village Fernando Horacio, people moved from Moro to Tutumbero village where they had school, clinic, chapel, water and electricity. But food shortage remains a major problem. People were prevented from planting beyond 500 meters from their houses.
1983 – 1990	Community still under Indonesian military control. More people got education. People free to plant anywhere but still not enough food. Fernando Horacio still chief of village.
1991 – 1999	More Indonesian military (BTT) came. Some community members moved to Raumoco village. While education, health, agriculture sectors were running normally, persecution from Indonesian military escalated.
1999 – 2001	New chief of village was Duarte da Costa Ribeiro. Political situation worsened until the referendum (independence or integration). Many houses were burned, properties destroyed, people killed. E. Timor gained independence in 1999. INGOs started reconstruction and rehabilitation programs.
2002 – 2004	Big flood destroyed houses, irrigation system & properties. Projects from INGOs repaired and constructed schools, houses, health clinic, and irrigation system. Roads to other villages built. People free to stay wherever they want. Women's group & agriculture group formed.
2005	Not enough rainfall causes food shortage. Fernando Horace re-elected as Chief of village.

5.3 **Hazard Assessment Matrix** for Nature and Behaviour of Hazards.

Sample of Hazard Assessment Using Hazard Matrix

Hazard Assessment	Origin	Warming signs and signals	Period/speed	Force	Frequency	Time	Duration
Tsunami	Rainfall	Scientific Indigenous Animals Historical recording	Rapid onset	Seismic Hydro Water gushing	Not established		minutes
Earthquake	Water contamina -tion No sewerage Water stagnation Pollution of water channels	Indigenous Animal behavior Cyclic reoccurrence Sounds/whist ling from ground	Highly Rapid/ no forewarning	Movement shakes	Not established		seconds

5.4 **Seasonal calendar** for seasonality of hazards or threats presented at the next page.

5.4 **Seasonal calendar** (Iliomar, village, Lautem District, Timor Leste)

No	Activity/ event	Months												Explanation
		1	2	3	4	5	6	7	8	9	10	11	12	
1	Rainy & dry season													Rainy summer
2	Strong wind													Strong wind
3	Planting season													Corn rice
4	Harvest season													Rice harvest Corn harvest
5	Hunger season													Hunger
6	Landslide season													Landslide
7	Flood season													Flood
8	Drought season													Drought Animal death
9	Disease season					++	++	++						Malaria season ++ Sore eyes
10	Pest season													Rats Insects
11	Selling of crops													Sell vegetable
13	Construction of houses													Building activity
14	Wedding & social activities													Dowry system

6. After the interactive lecture, group the participants into 4 workshop groups:
   - Group 1 to do hazard map
   - Group 2 to prepare historical profile of disasters
   - Group 3 to do hazard assessment matrix
   - Group 4 to do seasonal calendar.

7. Move around the room and assist the participants on their work. After each group has finished discussion and visuals, let them present to the plenary body. Encourage participants to actively validate information provided by the reporting group.

   Summarize session by reviewing the hazards which have caused and which can cause damages in the community.

Duration: 1.5 Hours

Tips to Facilitators:

- Hazards may cause secondary hazards - like earthquakes may cause landslides, drought may cause epidemics and pest infestations; floods might bring about pollution and cause epidemics, etc.
- Do secondary data gathering for details of hazards, especially for those which the community has not yet experienced or may not be aware of. Check with various government agencies on hydro meteorological, and environmental hazards.
- Consult both indigenous knowledge and scientific data to better understand features and effects of specific disasters. Scientific data must be translated into practical information for community members.

Materials Needed:

Community map
Flip chart/easel paper, colored markers or pencils, plastic sheets for overlay on community (base) map
Hazard Assessment Matrix (please see references in session 1)
Visual or description of tools to use in hazard assessment (please see references in session 1)

References:

1. Living with Risk, UN ISDR, 2002.
2. Major Hazards, Family and Community Disaster Preparedness: Guide for Training Families and Communities, Department of Social Welfare and Development, Philippines.
3. Citizenry-Based & Development-Oriented Disaster Response: Experiences and Practices in Disaster Management of the Citizens Disaster Response Network in the Philippines, Heijmans, Annelies & Victoria, Lorna P.
4. Guidelines for Elaborating a Community Risk Map by *René Martorell and Rocio Sáenz*, UNISDR Latin America & the Caribbean.
   http://www.crid.or.cr/crid/CD_EIRD_Informa/ing/No3_2001/Pagina15.htm

5. Guidelines for Producing A Community Risk Map, UNISDR Latin America & the Caribbean, Disaster Risk Reduction 1994 2004, UNISDR.
6. Project Documents, Concern Worldwide, Timor Leste.

Session-3

Vulnerability Assessment

Session Objectives:

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

1. Describe the elements-at-risk which can be damaged by the hazards (who, what, where, how many, how much?);
2. Analyze the factors and conditions why the elements-at-risk can be damaged by the hazards;
3. Explain the process of conducting vulnerability assessment.

Key Notes

- Vulnerability is a complex set of interrelated factors and conditions which affect the ability of the community to prevent, mitigate and prepare for or respond to hazard events. These are also the weaknesses present in individuals, households and the community.
- Vulnerability assessment is a participatory process to identify what elements are at risk per hazard type, and to analyze the causes why these elements are at risk.
- Elements-at-risk include the people, households, houses, property, crops, livelihood, community facilities, the environment which may be damaged by the hazard.
- Participatory tools for vulnerability assessment include hazard map showing elements at risk, transect walk, semi-structured interviews and focused group discussion, seasonal calendar, livelihood analysis, institutional & social network analysis (Venn diagram), problem tree and ranking.

Methods

Interactive lecture

Group work on actual vulnerability assessment

Process:

1. Present the session objectives to the participants.
2. Review with participants the concept of vulnerability. Show them a photo of a community in high risk areas or people in high-risk situation - e.g., houses built on mountain slopes, etc. Review what & who are vulnerable as shown in the photos. Then explain the concept.
   - What is Vulnerability?
   - What is Vulnerability Assessment?
3. Ask the participants who, what, where, how many, how much are usually damaged during disasters. Synthesize answers and discuss "elements at risk".

What are the elements at risk? These are the people, households, houses, property, crops,

livelihood, community facilities, the environment which may be damaged by the hazard. During vulnerability assessment, the elements at risk are identified and why these can suffer damage and loss are studied. Basically, vulnerability assessment answers the following questions:

- Who are at risk or can incur damage and loss?
- What are other elements at risk?
- What damage or loss can these people or elements at risk suffer/incur?
- Why will these people or elements at risk suffer or incur loss/damage?

For instance, why are houses and fields destroyed by landslides? There are several possible answers, such as: because of inappropriate land development, deforestation, houses are on dangerous location, etc. Analysis is important to determine what preparedness and mitigation measures can be most effective in the short and long term.

4. Explain that vulnerabilities can be broadly categorized as:

   - physical/material
   - social/organizational
   - attitudinal/motivational

   Please refer to materials on Categories and Factors for Capacities and Vulnerability Analysis, presented in the Participants' Workbook.

5. Explain that in conducting vulnerability assessment there are several participatory tools the community can use, such as: hazard map showing elements at risk, transect walk, semi-structured interviews and focused group discussion, seasonal calendar, livelihood analysis, institutional & social network analysis, problem tree and ranking.

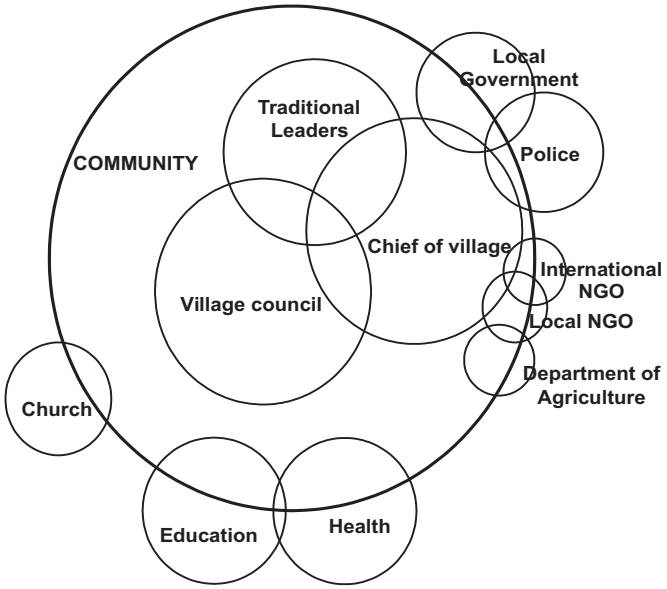
6. Briefly discuss some of the participatory risk assessment tools presented. Explain to the participants the steps in conducting them, and present the examples of community outputs.

   6.1 **Institutional and Social Network Analysis** a pictorial presentation in circles of different individuals, organizations, and institutions involved in the community. The significance of these individuals, organizations and institutions are reflected in the size of their circles.

Tips to the facilitator: The size of the circle indicates the importance. Arrange the circle as follows:

Separate circles	=	no contact
Touching circles	=	small link, e.g., information shared among institutions
Small overlap	=	bigger link, e.g., some cooperation in decision-making
Large overlap	=	strong link, like considerable cooperation in planning and decision-making

Show to the participants the institutional and social network analysis prepared by community members below:

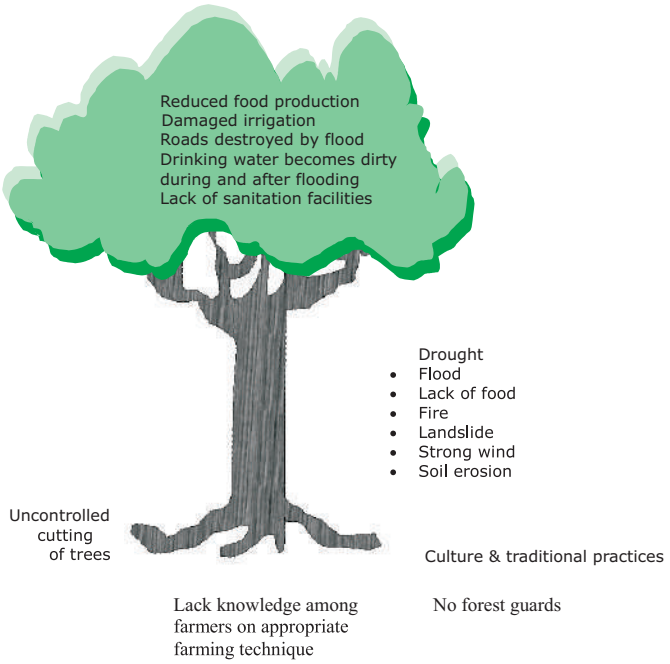


6.2 **Problem Tree Analysis**

A problem tree is a tool for identifying major problems in the community as well as their root causes and effects. This tool enables community members to analyse their situation and clarify the interrelationship of their problems.

Tip to the facilitator: Encourage participants to formulate the problems as concrete and specific as possible. For example, 'poverty' is too general.

An example of problem tree analysis is presented below.



6.3 Ranking of Problems and Solutions

Steps:

1. Community members list down the hazards. The list can be extracted from the seasonal calendar & mapping activities.
2. Identify impact of each hazard. Broad categories are impact on life, property, critical facilities like irrigation, public buildings, and environment. (For example: What happens to your house when there is a flash flood?)
3. Try to list at least one impact per hazard. The list of impacts can be used as the set of indicators.

Most commonly used tool is Matrix Ranking. There are many variations of using this tool. The community can use stones to rank the hazards with 10 stones to indicate the most significant indicator and 1 stone to indicate the least significant among the indicators.

An example of Matrix Ranking of hazards prepared by community members is presented below:

Hazard	Impact/Indicator							Total	Rank
	People's Lives			Properties		Infrastructure			
	Death	Injury	Sickness	Houses	Animals	Roads	Irrigation		
Flood				ò ò ò ò	ò ò ò ò ò ò ò ò ò ò	ò ò ò ò ò ò ò ò ò ò	ò ò ò ò ò ò ò ò ò ò ò ò ò ò ò ò ò ò ò ò	49	I
Lack of food	ò ò		ò ò ò ò ò ò ò ò ò ò		ò ò ò ò ò ò		ò ò	42	II
Landslide						ò ò ò ò ò ò ò ò	ò ò ò ò ò ò ò ò ò ò ò	19	V
Drought	ò		ò		ò ò ò ò ò ò ò ò ò ò ò ò ò		ò ò ò ò ò ò ò ò ò ò ò	27	III
Pests on plants & animals	ò ò ò ò ò ò	ò ò	ò ò ò ò ò		ò ò ò ò ò ò ò ò ò ò			23	IV
Malaria & Diarrhea	ò ò ò ò ò	ò ò ò	ò ò ò ò ò		ò ò ò ò ò			18	VI
Strong Wind			ò ò ò ò ò ò	ò ò ò ò ò ò ò ò	ò ò ò ò			19	V
Soil erosion					ò ò ò ò ò	ò ò	ò ò ò ò	9	VII
Fire				ò ò ò ò ò				5	VIII

Following the matrix ranking, the people discussed and came up with possible solutions to the problems identified.

Priority	Problem	Solution
III	Drought	1. Irrigation rehabilitation 2. Reforestation 3. Community awareness 4. Group formation 5. Animals raising (chickens, goats)
I	Flood	1. Tree planting 2. River control 3. Warning system 4. Evacuation plan 5. Local regulations
II	Lack of food	1. Silo making & grains bank 2. Irrigation rehabilitation 3. Reforestation 4. Community awareness 5. Group formation 6. Animals raising
IV	Pests on rice and corn fields	1. Training on traditional pesticides 2. Preparation of traditional pesticides 3. Community awareness
V	Soil erosion/landslide	1. Tree planting 2. Gabions to prevent landslides 3. River cut-off 4. Warning system
V	Strong wind	Tree planting
VI	Malaria and Diarrhea	1. Community awareness on health 2. Water and sanitation system 3. Local regulation

6. Encourage questions and clarifications from the participants. For classroom exercise, divide the participants into 3 small workshop groups.

   Group 1 to prepare institutional & social network analysis
   Group 2 to do the problem tree
   Group 3 to prepare matrix ranking (of problems)

7. Ask participants to present their group work to the plenary body and invite questions from the participants.

   Summarize session by reviewing the vulnerabilities and elements- at- risk in the community.

Duration: 1.5 Hour

Tips to Facilitators:

Commonly used tools for assessing people's vulnerability are:

- community mapping, visualizes land use patterns, mobility and elements at risk
- transect walk gives a better understanding of the map done by the community and provides opportunities to ask more questions regarding physical/material vulnerability
- seasonal calendar gives insight into periods of stress, diseases, hunger, debt, etc.
- livelihood analysis shows that not everybody is equally affected by hazards
- institutional and social network analysis can show us the lack of coordination among organizations and government agencies
- semi-structured interviews can assess the motivational vulnerabilities of the community
- problem tree and ranking enables community members to express their main vulnerabilities and root causes of their vulnerabilities

Materials Needed:

Hazard map from previous session
Flip chart/Easel paper, colored markers or pencils, plastic sheets/cover for overlay on base map
Visuals and/or descriptions of tools for vulnerability and capacity assessment

References:

1. Living with Risk, UN ISDR, 2002.
2. Major Hazards, Family and Community Disaster Preparedness: Guide for Training Families and Communities, Department of Social Welfare and Development, Philippine.
3. Citizenry-Based & Development-Oriented Disaster Response: Experiences and Practices in Disaster Management of the Citizens' Disaster Response Network in the Philippines, Heijmans, Annelies & Victoria, Lorna P.
4. Guidelines for Elaborating a Community Risk Map by *René Martorell and Rocio Sáenz*, UNISDR Latin America & the Caribbean. http://www.crid.or.cr/crid/CD_EIRD_Informa/ing/No3_2001/Pagina15.htm
5. Guidelines for Producing A Community Risk Map, UNISDR Latin America & the Caribbean, Disaster Risk Reduction 1994-2004, UN ISDR.
6. Project documents, Concern Worldwide, Timor Leste, 2005.

Session-4

Capacity Assessment

Session Objectives:

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

1. Discuss how the community has prepared for the hazards, coped with and survived the disasters;
2. Identify capacities and resources in the households and communities which can be used for disaster risk reduction;
3. Explain the process of conducting capacity assessment.

Key Notes

- Capacity assessment refers to the study of resources, strengths, coping mechanisms and strategies of the people in the community.
- Coping refers to managing resources or survival strategies in adverse or crisis situations.

Methods

Interactive lecture

Group work on actual capacity assessment

Process

1. Present the session objectives to the participants.
2. Review with the participants the following concepts:

What are capacities? Capacities are the strengths which individuals, households, communities, and the government possess. Capacities relate to resources, skills, knowledge, organizations and institutions, practices, attitudes and values.

What is coping? Coping refers to managing resources or survival strategies in adverse or crisis situations. Most notions of coping are positive (and is therefore a capacity), but it can also come to a point when it leads to increasing of vulnerabilities, - e.g., selling of productive assets (land, livestocks) or engagement in anti-social or destructive activities (prostitution, crime).

What is capacity assessment? In capacity assessment, these resources, strengths, coping/survival mechanisms and strategies are studied. Basically capacity assessment answers the questions:

- What are existing coping strategies and mechanisms during times of crisis?
- How have individuals, households and the community survived and responded to disasters in the past?

- What resources, strengths, local knowledge and practices can be used for disaster preparedness, mitigation and prevention?

Categories for capacity assessment are the same as with vulnerability assessment:

- physical/material: economic and natural resources such as cash, land, tools, jobs, or access to credits
- social/organizational: social resources that help people resist and handle threats close knit family/community, people sharing material resources, good leadership, caring and responsible local and national institutions
- attitudinal/motivational: people are aware of their abilities and have confidence in themselves, people have a sense of control over events and power to change their conditions.

Further explain that participatory tools for capacity assessment are the same as those used in vulnerability assessment (steps & examples presented at session 3 - Vulnerability Assessment).

3. Discuss Capacity Assessment

What is Participatory Capacities Assessment? This is a participatory analysis of post disaster situation expressed in terms of capacities. It helps identify disaster risk reduction measures that would support development initiatives in the community.

Purpose:

1. To identify appropriate rehabilitation and mitigation responses that address physical and material needs of the community and organizations.
2. To ensure that disaster responses build on and strengthen people's capacities.

How To Conduct the Capacity Assessment?

1. The community leaders must be briefed about its content and purpose.
2. Explain that in Capacity Assessment, community members identify their resources and strengths to deal with and respond to disasters. Capacities also refer to people's abilities to recover after the impact of disasters.
3. Explain the 3 main categories of Capacity Assessment:

   Physical/Material: in this category, the following aspects must be looked into:

   - means of livelihood, production, skills;
   - access and control of resources (land, water, animals, etc.);
   - availability of infrastructure and services (roads, health facilities, schools, transport, housing, etc.);
   - human capital (mortality, diseases, nutritional status, population, literacy, etc.);
   - hazards that affect the villages, how the physical/material resources are affected by each disaster;
   - coping mechanism.

   Social/Organizational included in this category are leaders and systems for decision-making, relations among the people (e.g., according to class, gender, ethnicity, religion), social structures and organizations in the village.

Motivational/Attitudinal includes perceptions of risks, people's beliefs and motivations on disaster risks, capacities such as positive attitude, concern and willingness to help each other.

4. Draw the following matrix and conduct discussion with the people.

Aspect	Capacities
Material/Physical	
Social/organizational	
Motivational/Attitudinal	

Key Questions

Physical Material Capacity

1. What are the capacities of the village in terms of resources (land, water, animals, capital, skills, etc), economic activities (means of productions, sources of livelihoods)? Who has access to and control over resources?
2. What are the hazards affecting the village? How do disasters affect the physical/material aspects?
3. What are the basic services or facilities like roads, bridges, health facilities, schools, housing, electricity, communications, etc. in the village? Which among them provide good services? Which create problems to the people?
4. What is the mortality rate, diseases, nutritional status, population, literacy rate, poverty levels of the population?
5. What is the status of the environment? Forest, soil quality, river condition, etc.

Social/Organizational Capacity

1. Are there community projects/activities? Who makes decisions?
2. What is the level of people's participation in village projects/activities?
3. Is there an existing village level organization (formal, informal, traditional, or government initiative)?
4. Access to outside information by the people.

Attitudinal/Motivational Capacity

1. What is the level of people's awareness of disaster events that happened in the village?
2. How do people view their ability to create change or development in the village?
3. What are people's perceptions of risk? Example, it's God's will and they cannot do anything about it, or they can do something to manage the risk.

4. Present an example of community Capacity Assessment as shown below:

Aspect	Capacities
Material/Physical	People own equipment like tractor, thresher, rice mill, corn mill, sewing machines. Water system (6) installed by Care Canada, 10 wells available People prepare local pesticides to kill rats and insects in ricefields and corn fields People gather wild fruits, bamboo and beans in the forests
Social/ organizational	Village council & other organizations (agricultural, youth & women) active. Women's group manage kiosk provided by Korean NGO Farmers' group organized by Care conduct training to control pests and increase rice production
Motivational/Attitudinal	Community work together and help each other (e.g., neighbors help to fix house destroyed by strong wind).

5. Group men and women separately and ask them to do the Capacities Assessment.

6. Ask participants to present their group work to the plenary body and invite questions from the participants. Take note of the similarities and differences between men and women's Capacities Assessment outputs. Facilitate discussion of the differences and unities between the groups.

Summarize discussion by reviewing the capacities in the community - physical/material, social/organizational, motivational/attitudinal.

Tips to Facilitators

- Remind the participants that even the most vulnerable families in the community possess capacities in terms of physical, social, or attitudinal. It is important to recognize and build on people's existing capacities to avoid creating conditions of vulnerability.
- For assessing people's capacities, similar tools as for the vulnerability analysis are applied.
- Integrate gender-consciousness approach in the conduct of Hazard, Vulnerability and Capacity Assessment. Capacities and vulnerabilities of men and women have to be assessed separately to determine not only the practical needs of men and women but also

determine each group's strategic interests.

- Refer to the Capacity & Vulnerability Assessment (CVA) framework presented in the Participants' Workbook.

Duration: 1 hour

Materials Needed

Flip chart/Easel paper, colored markers or pencils

Visuals and/or descriptions of tools for vulnerability and capacity assessment

References:

1. Living with Risk, UN ISDR, 2002.
2. Major Hazards, Family and Community Disaster Preparedness: Guide for Training Families and Communities, Department of Social Welfare and Development, Philippines.
3. Citizenry-Based & Development-Oriented Disaster Response: Experiences and Practices in Disaster \management of the Citizens@ Disaster Response Network in the Philippines, Heijmans, Annelies & Victoria, Lorna P.
4. Guidelines for Elaborating a Community Risk Map by *René Martorell and Rocio Sáenz*, UNISDR Latin America & the Caribbean. http://www.crid.or.cr/crid/CD_EIRD_Informa/ing/No3_2001/Pagina15.htm
5. Guidelines for Producing A Community Risk Map, UNISDR Latin America & the Caribbean, Disaster Risk Reduction 1994 2004, UNISDR.
6. Project documents, Concern Worldwide, Timor Leste, 2005.

Session-5

Community Risk Assessment Fieldwork

Session Objectives:

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

1. Validate with the members of the community the results of the HCVA undertaken inside the training venue and revise it accordingly;
2. Raise awareness of the community members on the disaster risks in the community and on the need to implement disaster risk reduction measures.

Process

1. Present the session objectives to the participants.
2. Coordinate with community leaders about the purpose, content, method and process of the community risk assessment, at least one week before the conduct of the fieldwork. Date and time of the visit, venue for meetings and other logistical needs must be agreed. Preparation includes the grouping of the local people as resource persons for the participants during the data-gathering. Grouping may be according to gender, age, occupation and institutions. It could also be mixed, but should ensure that men, women, children and the elderly are properly represented.
3. Organize the participants into data-gathering team before leaving for the field.
4. Instruct all teams to agree on what data they should gather, and not to forget to take with them the results of the classroom hazard, vulnerability and capacity assessment.
5. Run through the principles of community work regarding participation, proper behaviour and correct attitude in fieldwork. Remind the participants to be sensitive to the culture and gender aspects. Though they know each other well and though they are considered community leaders and officials, remind them that this time they are learners and this is an opportunity for gathering people's perceptions of risk besetting the community. Also remind them to take the results seriously as this will be the basis for community risk management planning.
6. Review the corresponding tools to generate information:

   - hazard assessment: hazard matrix, hazard map, seasonal calendar, historical profile
   - vulnerability assessment: hazard map showing elements at risk, transect, seasonal calendar, historical profile, timeline, institutional and social network analysis, livelihood analysis, livelihood analysis, problem tree, focus group discussion.
   - capacity assessment: all tools for vulnerability assessment, gender resource mapping.
   - people's perception of risk: ranking of hazards/community problems according to priority risk.

7. Agree which team will be assigned to particular groups.
8. Teams are composed of at least five members lead facilitator, co-facilitator, two documenters and an observer. The community leader or designated official serves as the overall coordinator of the data-gathering team.

9. The community leader or designated official should welcome everyone to this exercise and should reiterate the purpose of the fieldwork. It should be explained that though this is a field practice, the results will be used by the community for identifying risk reduction measures, therefore the community leader should encourage the participation of everyone.
10. After the general meeting, the teams go to their respective groups. In the small groups, the facilitators start the discussion, after a brief warm-up. As they discuss, the documenters take notes. Some of the information generated during the classroom exercise may or may not be validated. The documenters also take note of that. Participatory tools are used, ensuring that people participate in the discussion, drawing, sketching, etc. At the end of each meeting, the facilitators summarize the findings and ask if there are any corrections.
11. After the small group meeting or activity, all teams meet to summarize and put the result in the suggested community risk assessment format. It should be presented to the community for more discussion and general synthesis.
12. After thanking the community, the whole group goes back to the classroom setting.
13. After getting back to the training venue, discuss the process and results of the community risk assessment. Learn from the field practice by pointing out what went well and what went wrong during the activity.

Tips to Facilitators:

- During the fieldwork, the classroom/data information from the HCVA sessions is validated by the rest of the members of the community.
- Assign facilitators for the fieldwork who are good at involving people in the discussion.
- This is the opportunity for the participants to practice the tools that they have read and learned.
- The participants should familiarize themselves with the materials on "Data-Gathering Plan for Community Risk Assessment" the and Do's and Don'ts in Doing Community Work." These are all contained in the Participants' Workbook.

Duration: 4 Hours

Materials Needed:

- Visuals and/or descriptions of tools for hazard, vulnerability and capacity assessment
- Flip chart/Easel paper, colored markers or pencils

Community Preparedness & Emergency Response Activities

Modular Objectives:

At the end of the module, the participants would be able to:

1. Discuss preparedness and response activities in the community;
2. Demonstrate skills in conducting community preparedness and response activities.

Number of Sessions: 5

Session 1 : Overview of Disaster Preparedness and Emergency Response
Session 2 : Community Awareness
Session 3 : Damages, Needs and Capacities Assessment
Session 4 : Managing Emergency Operation Center
Session 5 : Evacuation

Duration : 5.5 Hours

Session-1

Overview of Disaster Preparedness & Emergency Response

Session Objective:

1. At the end of the session, the participants would be able to understand the objectives of disaster preparedness and emergency response, its mechanisms and strategies.

Key Notes

- Disaster preparedness refers to measures that ensure the ability of at-risk communities to forecast and take precautionary actions before a potential threat (CDRC).
- Emergency response activities are measures that ensure the ability of affected communities to respond and cope with the immediate effects of a disaster.

Methods

Exercise

Buzz session

Interactive lecture

Process

1. The module starts with an Exercise on Community Emergency Response.

   Step 1: Assign 8 participants as people from the community and separate them from the whole group.

   Step 2: Ask the remaining members of the big group to organize themselves as the Community **Emergency Operation Center (EOC**). Among themselves, they have to do the following: assign the role of coordinator/deputy coordinator; form committees and assign heads of committees; identify responsibilities of the leaders and roles and functions of the committees.

   Step 3: Instruct the participants that their task as the **EOC is to provide emergency assistance to the communities**. The responses can be communicated verbally, or written down and passed on to appropriate person(s) or groups. A message presenting the scenario will be read by the facilitator. The participants have **20 minutes to respond for 1 day** scenario.

   Step 4: The exercise can be held inside the classroom. Assign a corner as the "community;" label houses, schools, bridge, river, mountains. Place 3 participants to live close to the river banks, scatter the other 5 participants in different parts of the "community." Explain to the participants the marks and labels you have prepared.

Step 5: Give the following village profile:

Profile of Village A

Disaster: Flashflood, landslide

Location: The village is close to a huge river, mostly mountainous, 20 kms away from the main road and prone to isolation

Population: 200 families

Livelihood: Farmers 90%, small fishers in rivers 7%, teachers and government employees 3%

Infrastructure: 2 primary grade schools, 1 secondary/middle school, always used as evacuation centers

Lifelines: With electricity & source of potable water; a bridge connect the village to the next village (village B)

Step 6: Present the following scenario:

Day 1
It is two days after the training-workshop, and participants are back in the community. Heavy rains start to pour at 5:00 o'clock in the afternoon. Radio broadcast says that strong rains are to be expected in the next 2 days. Lightning and thunder are heard. It is very dark outside. What will the EOC leaders and committees do?

Day 2
It is now 8:00 o'clock in the morning, the rains have not stopped and getting stronger. The water coming from the mountain slopes has increased, the river's water level has risen. The downstream portion of the river started to erode. What will the EOC leaders and committees do?

Day 3
At mid day, situation in the community worsened. About 300 meters of the riverbank collapsed, and water entered the village, sweeping through the nearby houses. What will the EOC leaders and committees do?

Day 4
Rain stopped at 2:00 o'clock in the morning. Debris from flood are all over the community.

Step 7: Processing the Exercise: When time is up (60 minutes), ask participants to take their seats and participate in processing the exercise.

- Ask the participants about the composition of the EOC officials, their roles and responsibilities, the working committees and their functions, etc.
- How did the EOC/committees respond to the situation provided on the 1st day, 2nd day, and 3rd day?
- What are the strong and weak points of their responses? Why?
- How can they improve their emergency response? List down the activities done.

What to Look For From the Participants' Responses

Formation of EOC: Must have a team leader, possibly a deputy team leader and committees such as:

- Disaster Assessment and Warning - issues community warning and conducts initial DNCA.
- Evacuation & Temporary Shelter Management-based on initial DNCA results, people needed to be evacuated or placed in temporary shelters are identified and assisted in actual evacuation; takes charge of managing evacuation center.
- Security and Logistics - ensure peace and order in the community; transport relief goods and ensure proper maintenance of vehicles and equipment.
- Search and Rescue - conduct search and rescue operation to save people and properties during disaster.
- Relief Delivery Operation - receive, store, secure and distribute relief goods; coordinate supplies distributed directly by government, NGOs, INGOs and other organizations.
- Health - treat the injured and the sick, take necessary measures for preventive medicine and anti-epidemic actions, inspect food and water supplies.

Day 1: The EOC (through the Warning Committee) must post men along the river banks to keep watch on the rising water level. Other village officials must instruct community members to listen over the radio for the latest weather broadcast. This can be done by going from house-to-house or sounding off a bell or any warning instrument in the village.

Day 2: The Warning Committee must issue a warning to the community. Evacuation Committee starts to evacuate the villagers living close to the river banks. Committee members go from house to house to inform residents to leave their houses, gather at a certain place in the village identified as a pick-up point for evacuation. The villagers will be transported to a safe evacuation site (probably the school building).
A DNCA should have been conducted on the effects of flood along the riverbank.
Evacuation Committee ensures management of evacuation center/school.

Day 3: Search and Rescue team go through the village; Evacuation committee makes sure that none from the villagers living close to the riverbank was left behind. Relief Delivery Operation Committee monitors food supply in the evacuation center and provide assistance to the other similarly affected.

Day 4: Return-to-home order for the evacuees; clearing of debris in the community; food assistance and distribution of other relief items when necessary.

Step 8: Summarize discussion by highlighting the major points raised in the exercise.

Step 9: Connect the exercise to the topics of **Module 4: Community Preparedness & Response** Activities.

- Introduce the modular objective and sessions to be covered.
- Make a presentation to discuss the following:

What is disaster preparedness? Refer to Key Notes for the definition. Essential strategy

in disaster preparedness is the formation of a community disaster response organization and the formulation of a community disaster risk management plan. Activities and measures in disaster preparedness include: community awareness, community warning system, evacuation plan, securing of resources, organizational arrangements and policies, evacuation drills and training of community leaders and members.

Disaster preparedness is achieved through:

- readiness measures that expedite emergency response, rehabilitation and recovery that result in rapid and timely assistance
- activities that build the capacities of communities to cope with and minimize the effects of a disaster.

Objectives of disaster preparedness include:

- increasing the efficiency and effectiveness of emergency response mechanisms at the community;
- strengthening community-based disaster preparedness;
- developing activities that are useful both for addressing components for emergency situations and components for disaster risk reduction in the longer term.

What is emergency response? Refer to Key Notes for the definition. Emergency response includes the conduct of damages, needs, and capacities assessment, community-level search and rescue, relief assistance (provision of food & clothing, temporary shelter, medical assistance), evacuation center management, and activation of the emergency operation center.

Objective of emergency response is to arrest the further deterioration of the survivors' situation.

When should emergency response commence? When a disaster occurs and there is enough monitoring and gathering of relevant and valid data necessary to serve as basis for interventions.

3. Ask participants to conduct "buzz session" (a group of 3) and discuss the following:

   In the latest emergency situation experienced by the community, **when** did emergency assistance (in the form of food aid, clothing, medicines, etc.) commence i.e., how many days after disaster struck?; **what** kinds of assistance were provided?; and **how much** of these were provided per family? In processing outputs, ask the participants what they think of the assistance provided and how it can be improved.

   Stress that emergency relief assistance must be:

   - **timely**, i.e., it is provided at the critical time, when it is most needed. It can be hours after the onset, or days or weeks or months depending on the situation of disaster survivors.
   - **appropriate**, i.e., if it is based on actual needs of disaster survivors, the need determined by reliable and valid information.
   - **adequate**, i.e., how much of what items must be provided to every family must be defined (e.g., standard relief pack of food items for a family of 6 for one week), as well as the percentage of the population to be provided.

   Summarize by stressing that relief assistance must be a tool for community development and

participation, and should not create dependency among the people. This can be done by: ensuring that the process strengthens the existing structures in the community e.g., CCB, CBO, Village Council, or facilitate the formation of these organizations where there is none; people are consulted on their needs and capacities (through DNCA); and is sensitive to gender and cultural considerations.

Relief assistance must further enhance community awareness and mobilize the less vulnerable sectors for disaster response.

Duration: 2 Hours

Tips to Facilitators:

Refer participants to discussion in module 1 on concepts on CBDRM to prompt discussion on disaster preparedness and response. Present pictures of disaster preparedness and response activities taken from the participating communities and other communities in Pakistan.

References:

Handouts on Training of Trainers in CBDRM, Thaubang District, Myanmar December 16-21, 2004. Conducted by Center for Disaster Preparedness, Inc.

Introduction to Disaster Preparedness, Disaster Preparedness Training Programme, International Federation of Red Cross and Red Crescent Societies, July 2000.

Citizenry-Based & Development Oriented Disaster Response: Experiences and Practices in disaster Management of the Citizens' Disaster Response Network in the Philippines, Heijmans, Annelies & Victoria, Lorna P.

Table below shows the effects of community capacity building on emergency response (CBDO-DR: Experiences and Practices on Disaster Management of CDRC in the Phils. By Lorna P. Victoria and Annaleis Heijmans)

Indicators	Organized Community	Unorganized Community
Assessment	- Based on Damage, Needs and Capacity Assessment (DNCA) - Takes into account differences in vulnerability among families and prioritizes accordingly - Needs are validated against baseline data	- Based on numbers - Does not prioritize the most vulnerable - Does not identify particular needs -
Capacities	- Community able to conduct assessment - Large part of relief delivery operation done by community itself - Relief operation carried out systematically and orderly as a result of pre-set tasks and responsibilities - Reporting and accountability facilitated due to proper record keeping by community	- external agencies or network have to carry out assessment - relief delivery operation draws heavily on staff and volunteers of external agency/network - sometimes difficult to distribute relief goods in an efficient and orderly way, when distribution mechanisms or principles are not understood or accepted by community
Timeliness	Quick response possible (within 3 to 7 days) as a result of quick and reliable DNCA within a few days (ranging from the same day to at most 3 days after a disaster hit)	Response is much slower because initial DNCA takes longer and requires validation by external agency/network
Appropriateness	As a rule, assistance is appropriate to the extent possible because more accurate needs assessment to start with, and considers relief provided by others	Assistance is less appropriate, especially in case of relative long period between disaster event and response if DNCA is not updated
Costs/benefits	Low cost due to considerable use of community resources and appropriate targeting	Higher cost due to higher input of external human resources

Session-2

Community Awareness

Session Objective:

1. At the end of the session, the participants would be able to identify community awareness activities to reduce disaster risks in the community.

Key Concept:

- Community awareness is a process by which vulnerable populations understand the nature of hazards and their potential for causing disasters.
- Forms of community awareness in the community include community meetings, house-to-house campaign, posters, poster making contest among school children, plays, drama/skits, songs, leaflets, brochures, comics, calendar, manuals, books, radio programmes, observance of disaster consciousness month, photo exhibit, disaster management orientation, disaster preparedness training.

Methods:

Interactive lecture

Process:

1. Introduce session and its objectives.
2. Ask participants on their understanding of community awareness: objectives, forms/activities, process, etc.
3. Summarize points raised by the participants.
4. Stress that community awareness plays a vital role in disaster risk reduction. An essential part of a community disaster risk management plan is education and awareness of those who may be threatened by a disaster. Through a power point presentation, facilitate discussion of the following:

   What is community awareness? Refer to the definition presented in Key Notes. Further explain that it refers to a process wherein:

   - people living in hazard-prone areas understand that they live in areas of risk;
   - know the specific dangers that they are exposed to and the warnings that are issued;
   - know the appropriate actions to be taken to protect their lives and minimize property damage *(ADPC)*.

   What is the aim of community awareness? To promote an informed, alert and self-reliant community, capable of playing its full part in support of and in co-operation with government officials and others responsible for disaster risk management activities. (IFRC & Red Crescent Societies). It further aims to:

   - increase the knowledge of the community about the nature of hazards and its

consequences; and on practical preparedness measures;

- inform the community about the warning system that will be employed and what they should do when they receive it;
- increase knowledge on how to respond to an emergency situation;
- mobilize support for disaster risk management plans or response activities.

What are the elements of community awareness?

- The message
- The means (posters, radio, calendars)
- The audience
- The intended result

What are the features of an affective public awareness programme?

- Ongoing Process - Community Awareness is an on-going process, not simply a set of products such as posters, brochures, etc.
- Participatory - Target population are active participants in programme design and implementation phases, in partnership with individuals having the necessary technical skills.
- Community specific - culture and disaster history of the community should be considered.
- Hazard specific - an assessment of specific hazards is the essential basis for developing community awareness programme.
- Target population specific -must be based on need of specific group for information essential for them.
- Integral part of local warning and response system

What are various channels for community awareness?

- Community meetings, house-to-house campaign
- Posters, poster making contest among school children
- Plays, drama/skits, songs
- Leaflets, brochures, comics, calendar, manuals, books
- Radio program, television features, films
- Earthquake safety day, disaster consciousness day/week/month
- Photo exhibit, forum, public speeches
- Disaster management orientation, disaster preparedness training

5. Present different examples of community awareness materials in the community and explore what local community can develop depending on its needs and capacities.

6. Summarize discussion by pointing out that community public awareness will be effective if the process:

- has a long term and repetitive approach
- is consistent
- uses a wide variety of methods and media
- aims at general and specific groups
- utilizes normal / accessible sources of information
- concentrates on high priority hazards in vulnerable areas

Duration: 30 minutes

Tips to Facilitator:

- Bring different kinds of public awareness materials (calendar, poster, t-shirt, etc).
- Facilitate discussion on what forms of public awareness are most effective in the community and how the people can develop them.
- Point out to the participants that awareness raising of vulnerable communities and stakeholders is included in the National Disaster Management Framework with the DDMA as the lead agency (page 39 NDMF of Pakistan).

Materials Needed:

Easel paper
Colored marking pens
Crayons
Pictures, illustrations
Power Point Presentation
Sample of community awareness materials (calendars, t-shirt, posters, etc.)

References:

1. Handouts on Training of Trainers in CBDRM, Thaubang District, Myanmar December 16-21, 2004. Conducted by Center for Disaster Preparedness, Inc.
2. Asian Disaster preparedness Center, 4th Regional Course on CBDM, 2000.
3. Introduction to Disaster Preparedness, Disaster Preparedness Training Programme, International Federation of Red Cross and Red Crescent Societies, July 2000.

Session-3

Damages, Needs and Capacities Assessment

Session Objective:

1. At the end of the session, the participants would be able to discuss the importance and process in conducting damages, needs and capacities assessment (DNCA).

Key Notes

- Damages, Needs and Capacities Assessment is a participatory analysis of the disaster event, of the damages it caused, of the immediate needs and priorities of the affected community, and of the remaining capacities people use to cope with its adverse effects.

Methods

Buzz session
Interactive lecture

Process

1. Introduce session objectives to the participants.
2. Ask participants to conduct "buzz session" by grouping themselves into 3 and discuss collection and analysis of data at the community level after the latest disaster (typhoon, flood, earthquake, drought, etc.) : what and how data were collected? who conducted data gathering? who used the information gathered?
3. Process discussion by pointing out that an assessment instrument used to evaluate the situation in a community right after a disaster is the **damages, needs and capacities analysis (DNCA)**. Through a power point presentation, facilitate discussion of the following:

   What is DNCA? It involves a participatory analysis of the disaster event, of the damages it caused, of the immediate needs and priorities of the affected community, and of the remaining capacities people use to cope with the adverse effects (CDRC).

   What is the purpose of DNCA?

   - To identify appropriate emergency assistance
   - To receive timely report from the community level
   - To generate resources: financial, material and human
   - To adequately inform the public on disaster situation, needs and responses (disaster alert and public information campaigns)
   - To update the information gathered through the HCVA (in case behaviour of hazard changes)

When to do DNCA? DNCA must be conducted in communities affected by disaster as soon as weather conditions and circumstances allow people to safely move around.

Who conducts DNCA? The community's Emergency Operation Center (EOC, to be discussed in Session 4), a structure within the Community Based Organization (CBO) or Citizen's Community Board (CCB) must facilitate the conduct of the DNCA. Information gathered must be relayed to the Union Nazim and Union Council.

How to conduct DNCA? The DNCA is done through the following:

Process

1. Brief the community members on the purpose, content and process of the DNCA. This is done through community training-workshops.
2. The general areas of inquiry of DNCA are:
   - Description of disaster event;
   - Effects on people (injured, missing, killed, survived) and damages to housing, food supply, water, livelihood and critical facilities;
   - Current conditions of the affected community (e.g., health situation especially in evacuation centers);
   - Nature and quantity of relief assistance received from government and other agencies;
   - Resources left and available capacities (e.g., an active CCB that coordinates emergency response activities);
   - Immediate needs and priorities of the community;
   - Ways to communicate and coordinate with the community for emergency response.

Tools

There are various tools to conduct DNCA, some of which are:

- Direct observation;
- Transect walk (or boat ride in case of flood);
- Interviews: individual interviews with a few affected families & community interviews with community leaders.

Note: In the aftermath of a disaster, people are busy with restoring their lives and livelihoods hence, it is inappropriate to use methods that require lengthy engagement of the survivors before any form of relief is provided.

What are some points to consider in conducting DNCA?

- It is the task of the Community Based Organization (CBO) or the CCB - through the Emergency Operation Center, to conduct the DNCA;
- If a CBO exists, NGOs and other stakeholders should rely on the CCB reports and must not conduct a separate DNCA;
- Be aware of secondary threats (e.g., flood may bring about landslides, epidemics, etc.);
- Consider the most vulnerable people in the DNCA. Make use of hazard map if available to locate the people -at-risk;
- The 'D' in the DNCA is not just the material damage, but includes social and motivational 'damage' as well. For example, earthquake survivors may not only identify physical needs as food, clothing and shelter but may also require psychosocial assistance.

Duration: 1 Hour

Materials Needed

Power point presentation
Sample DNCA form

References:

1. Citizenry-Based & Development Oriented Disaster Response: Experiences and Practices in Disaster Management of the Citizens' Disaster Response Network in the Philippines, Heijmans, Annelies & Victoria, Lorna P.
2. Introduction to Disaster Preparedness, Disaster Preparedness Training Programme, International Federation of Red Cross and Red Crescent Societies, July 2000.

DAMAGE NEEDS AND CAPACITY ANALYSIS

1. **Disaster Event**
   - What happened?
   - When?
   - Where?
   - How?
   - What are other immediate threats? Who will be affected?
2. **Damages and loss**
   - Who suffered losses and damages to life and property?
   - What and where are the damages?
   - What community facilities and services are disrupted and non-functional?
3. **Responses of families and the community**
   - What emergency responses have been undertaken by the affected families and community?
   - What services have been given by the government and NGOs?
   - Emergency responses - evacuation, evacuation center management, search and rescue, monitoring of the disaster situation, relief assistance, assessment of damages, needs and capacity
4. **Plans of the affected families and community**
   - What are plans to respond to the emergency situation?
   - Who are involved?
5. **Needs in the emergency period**
   - What emergency services and responses are needed?
   - How many? How much? When?

Session-4

Managing Emergency Operation Center

Session Objectives:

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

1. Understand the importance of community emergency operation center (EOC);
2. Explain the structure, functions and tasks of the EOC.

Key Concepts

- Emergency Operation Center is a facility for control of operations and coordination of resources. It is the focus of community emergency response structure.

Methods

Interactive lecture

Process

1. Introduce session objectives to the participants.
2. Facilitate a review of how emergency response was conducted during the latest disaster that hit the community. Focus on the unit/structure/group of people who primarily performed functions for emergency response and recovery. Connect discussion to the formation of committees to manage emergency operation, otherwise known as an EOC.
3. Facilitate discussion on the following:

   What is an EOC? An Emergency Operations Center (EOC) is a facility for the control of operations and coordination of resources to be set-up and managed by the CCB/CBO in the community. It is the focus of community emergency response system.

   What are the tasks of an EOC? As one of the primary functions of the CCB/CBO, tasks of EOC include:

   - Collection and analysis of data for public information and warning
   - Emergencies Assessment or Damage Needs Capacities Assessment (DNCA)
   - Identification of risks and problems
   - Identification of services needed
   - Delivery of relief goods and other services
   - Networking and management of media and other concerned groups and individuals

   What is the management structure of the EOC? To prescribe command, control and coordination arrangements during emergency and recovery operations, the EOC will be managed by the CCB or CBO, as part of the latter's function. The following are the prescribed functions and responsibilities of the EOC:

   - **EOC Coordinator**. The EOC is headed by a Coordinator (possibly the head of the

CCB/CBO) who brings together individuals and organizations to ensure effective emergency management response and recovery.

- **Assistant Coordinator**. He/she will assist the Coordinator in the overall direction of emergency response and recovery. Primary function includes networking with the less vulnerable sectors for mobilization of resources.

EOC Committees. Working committees within the EOC may include the following:

- Disaster Assessment and Warning - issues community warning and conducts initial DNCA ;
- Evacuation & Temporary Shelter Management - based on initial DNCA results, people needed to be evacuated or placed in temporary shelters are identified and assisted in actual evacuation; takes charge of managing evacuation center;
- Security and Logistics - ensure peace and order in the community; transport relief goods and ensure proper maintenance of vehicles and equipment;
- Search and Rescue - conduct search and rescue operation to save people and properties during disaster;
- Relief Delivery Operation - receive, store, secure and distribute relief goods; coordinate supplies distributed directly by government, NGOs, INGOs and other organizations;
- Health & Sanitation - treat the injured and the sick, take necessary measures for preventive medicine and anti-epidemic actions, inspect food and water supplies.

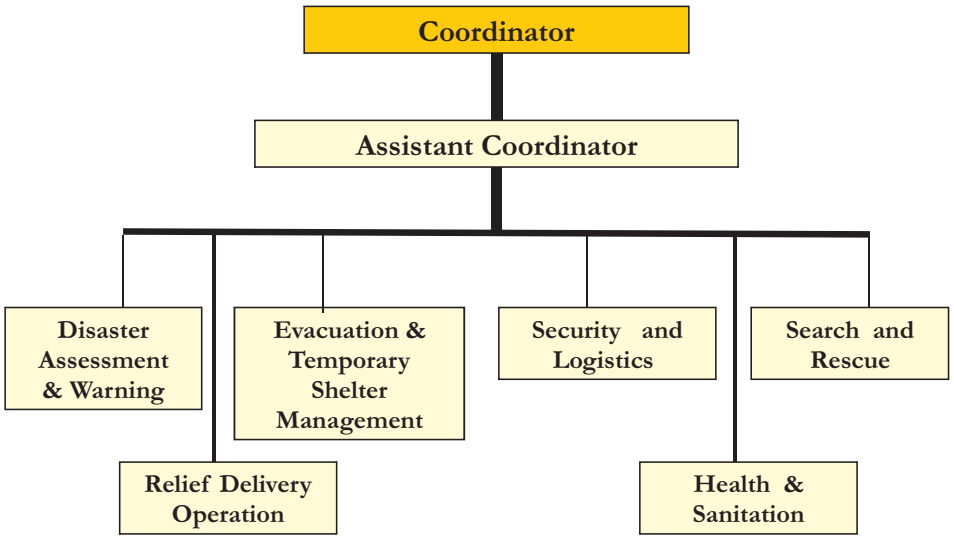
What are the factors to consider in operating an EOC?

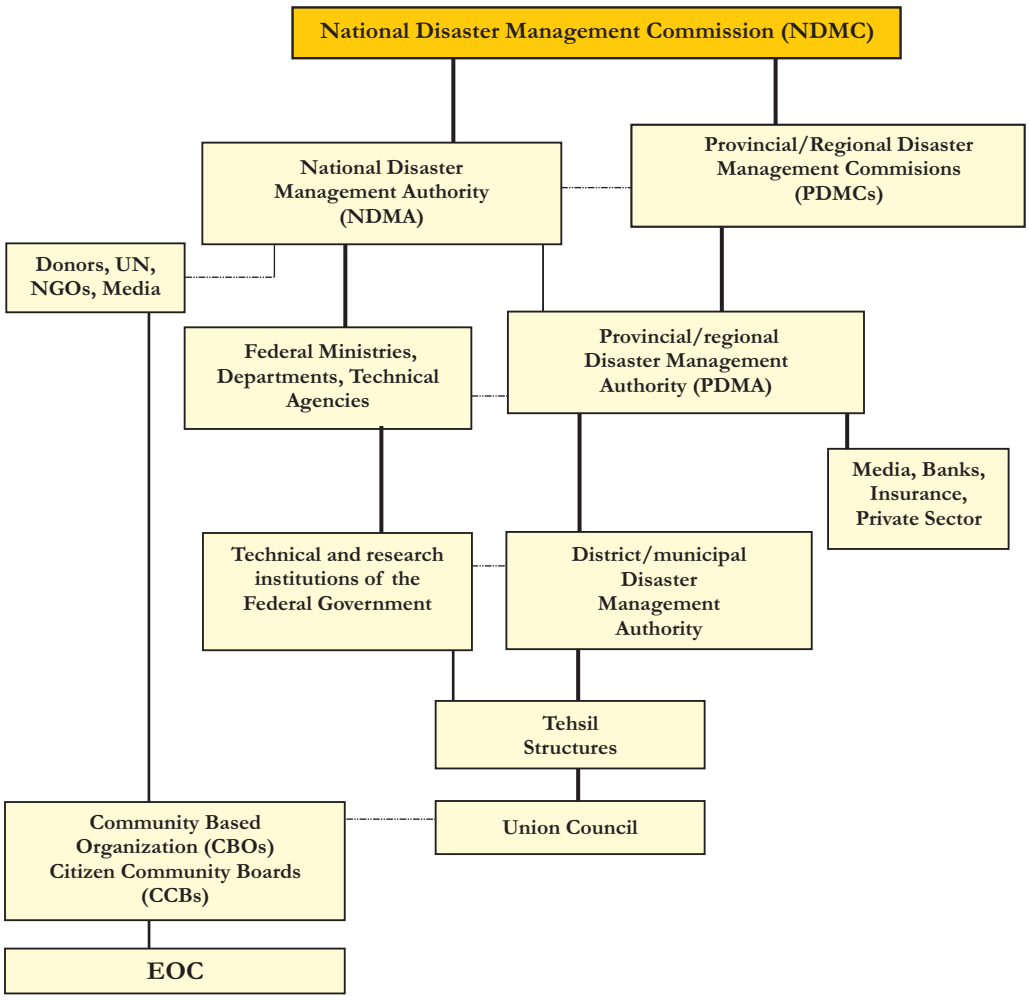
a) Community members trained in emergency response
b) A Coordinator who heads the operation and an Assistant Coordinator
c) Committees or group of people assigned to manage the operations
d) Communication facilities. Arrangements for receiving, collating and assessing information and for facilitating decision-making
e) Site of EOC and other logistical requirements (safe and accessible location, storage space, vehicle access, emergency power supply, arrangement and facilities for briefing visitors and media, food, sleeping quarters, rest area etc.)
f) Maps, pictures, billboards, information boards and other materials. Display facilities (wall displays, etc.) for showing disaster situation (areas affected, etc.) resources available, tasks being undertaken, tasks needing to be undertaken, etc.

It is also important that arrangements are maintained for the Emergency Operations Center to be activated on short notice and for designated members of the community to be alerted accordingly. The site of the EOC must be clearly identified (e.g., a mosque, school, etc.) and made ready, as well as periodically checked to ensure that all is ready to be mobilized.

When do you activate the EOC? When a disaster has occurred, and there is enough monitoring and gathering of relevant and valid data necessary to serve as basis for interventions.

What could be the structure of the EOC? As a function of the CBO, the EOC may have the following structure:





Command, Control And Coordination

In particular, it is the management structure which prescribes command, control and coordination arrangements to be applied during operations. These arrangements are:

- **Command**
  Direction of members and resources of an organization in performance of its agreed roles and tasks. Authority to command is established by agreement within the organization or community. Command relates to an organization and operates vertically within it.
- **Control**
  Overall direction of emergency management activities in a designated emergency situation. Authority for control is established or agreed upon in an emergency plan, and carries with it responsibility for tasking and coordinating other units or organizations in accordance with the needs of the situation.
- **Coordination**
  Bringing together individuals and organizations to ensure effective emergency management response and recovery, and is primarily concerned with systematic acquisition and application of resources (people, material, equipment etc) in accordance with the requirements imposed by the threat or impact of an emergency. Coordination relates primarily to resources and operates vertically within an organization (as a function of the authority to command), and horizontally across organizations (as a function of the authority to control).

Duration: 30 minutes

Materials Needed:

Power point presentation

References:

Handouts on Training of Trainers in CBDRM, Thaubang District, Myanmar December 16-21, 2004. Conducted by Center for Disaster Preparedness, Inc.

Introduction to Disaster Preparedness, Disaster Preparedness Training Programme, International Federation of Red Cross and Red Crescent Societies, July 2000.

Citizenry-Based & Development Oriented Disaster Response: Experiences and Practices in disaster Management of the Citizens' Disaster Response Network in the Philippines, Heijmans, Annelies & Victoria, Lorna P.

Session-5

Evacuation

Session Objectives:

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

1. Explain evacuation, its requisites and steps;
2. Explain the importance of preventive evacuation;
3. Draft evacuation plan based on identified families and community facilities at risk.

Part 1: Preventive evacuation
Part 2: Warning
Part 3: Evacuation plan

Key Notes:

- Evacuation is a temporary movement of people from identified danger zones to the designated safe houses/centers in order to protect their lives.
- Preventive evacuation refers to evacuating when the hazard has not yet reached the houses of people-at-risk.
- Warning system includes actions to alert people about an impending hazardous event or circumstances in their location, which may threaten their safety and security, and which requires an adaptive response.

Methods:

Role play
Interactive lecture

Process:

1. Ask participants to recall their latest evacuation experience through role play in response to flood, landslide, cyclone, etc. After the role play presentation, process the activity by asking the following questions: *how the evacuation was done*, *who facilitated the conduct, problems encountered and lessons learned.* Summarize points raised in meta cards.
2. Facilitate a discussion on the following:

Part 1: Preventive Evacuation

What is evacuation/preventive evacuation? Define evacuation as a temporary movement of people from identified danger zones to the designated safe houses/centers in order to protect their lives. Preventive evacuation refers to evacuating when the flood water or other threats have not yet reached the houses of peoples at risk. Stress that what is required is preventive evacuation.

What are the requisites for preventive evacuation?

- Timely and accurate warning system
- Inventory of population at risk; the families living in red, blue and yellow zones
- Safe evacuation center/houses
- Identify the shortest and safe evacuation routes
- Evacuation teams or volunteers to assist
- Security of vacated houses

What are the steps in evacuation?

1. Warning
2. Order to move
    - Actual movement of people at risk
    - Stay at evacuation center and evacuation center management
3. Return-to-home order

Part 2: Warning

What is warning? Warning system includes actions to alert people about an impending hazardous event or circumstances in their location, which may threaten their safety and security, and which requires an adaptive response.

A community-specific warning system will contribute to people's safety. It will be effective if:

- Warning is hazard-specific;
- Warning is location-specific and focuses on most vulnerable;
- Warning is timely to enable people at risk to take appropriate decisions;
- Warning issued by a credible source (from national/province/district to community);
- Warning message is short and clear;
- Community members are oriented about the warning system and understand the warning signals and their meaning;
- Warning from the national level (technical/scientific) is explained and translated into community-defined warning (laymen/practical terms);
- Warning is done in phases to avoid panic; timely information is given to community members about changes in warning and risks involved;
- Community-level committee exists that is responsible for warning, hazard monitoring and information dissemination. Roles and responsibilities are agreed upon;
- Regular drills are conducted to keep community updated and prepared;
- Warning system and related preparedness and emergency measures are evaluated to identify deficiencies and required improvements.

Why do we give warning? We give warning to:

1. Inform about:
    - hazards
    - elements at risk
    - risks
    - the environment
    - potential needs

2. Advise on:
   - means of protection

     Example: warning on contamination of water sources either from natural or human made activities (contamination due to parasites/bacteria etc., contamination due to mining).
   - means of preparedness

     Example: severe weather forecast/warning, preventive evacuation.
   - means of mitigation

     Example: sandbagging to reinforce the dike.
   - means of response to threat

     Example: warning that floodwater is about to breach the dike and that there is need to reinforce dike (sandbag); warning that informs community of the presence of armed group in the area and that people are advised to congregate at the village square.

3. Instruct on:
   - What
   - When
   - How
   - Who
   - Where

What are the things to consider when giving warning?

1. Inform the people of the different phases of the warning and their meaning
2. Inform or update the evacuees/community of the forecast and the warning of agencies or community monitoring team using symbols or sounds that everybody can understand.
   a. If symbols are to be used, these can be painted or mounted in plywood or boards that can be read or seen even from afar.
   b. Make sure to change the symbol or sound when a change in the warning or forecast is made by warning agencies or by the community monitoring team.
3. "Information Boards" can be placed in strategic or conspicuous areas/places like:
   - mosque, schools or government buildings mountains or high places
   - stores / transportation facilities
   - other places where people frequently pass or gather
4. Organize a committee on information to monitor and prepare all paraphernalia for the dissemination of information regarding the warning/forecast or the monitoring of all hazards (natural or human-made).

   The flow of information from the "field" until it is processed and packaged for information dissemination to the community should be clear.
5. Identify roles and responsibilities
   - For any one element, an organization or an individual must be able to determine that it has:

a. primary role responsibility for initiating and maintaining action; and/or
b. secondary role responsibility for undertaking tasks in support organization or individual with a primary role; or
c. no role at all.

- Two methods of describing these roles and responsibilities can be used by the information committee
  a. list **organizations** involved and describe their roles for each hazard
  b. list **hazards** and identify the lead/support organizations for each hazard

The description of roles and responsibilities by organization is useful for each team leader, coordinator, organizations involved to review their (individually and) organization's overall involvement

6. Community should know the meanings of actions to be taken. Or recommended actions should be specific like: pack-up things, proceed to pick-up point or proceed to evacuation site
7. Warning is given in simple form and in the local dialect

ATTENTION: Fellow Citizens of **Garhi Habib Ullah**

> *Based on the latest warning of Pakistan Meteorological Department, high flood may pass the **Mansherra District** within 24 hours. **Kunhar River** is expected to overflow and shall inundate **Gari Habib Ullah**.*
>
> *All residents are advised to evacuate to their designated Evacuation Sites. Please bring the following: food, cooking utensils, bed sheets and water. Farm animals shall be evacuated at the stable atop the hill.*
>
> *We have three hours to prepare before our organized evacuation.*

What are the criteria of a safe evacuation center?

- Must be located outside the danger zones
- Have sufficient sanitation facilities
- Accessible (easy to go)
- Have electricity and water

Part 3: Evacuation Planning

Discuss the evacuation plan with the following format:

1. Community profile (population, location, etc.)
2. Disaster experiences
3. Current disaster risk management practices
4. Elements at risk
   - People, houses, village facilities, properties in the red, blue, and yellow zones

5. Purpose and mission
   - Objective of the evacuation plan

6. Community warning system and evacuation procedures
   - Required action per warning levels

Warning level	Required action	Warning signal
Level 1 Alert stage		
Level 2 Monitoring stage		
Level 3 Preparatory Stage		
Level 4 Evacuation stage		
Return – to Home-order		

7. Identify evacuation center
8. Designate safe pick-up points
9. Safe evacuation route by walking and by vehicle
10. Evacuation center management with participation of evacuees
11. Other manpower, resources and logistic requirements
12. Task and responsibilities of CCBs and organizational structure
13. Other disaster prevention measures
14. Annexes
    - risk map, evacuation map
    - telephone numbers of members and addresses of INGOs and NGOs etc…)
    - list of community members
    - tasks of CCBs, & other groups in the communities
15. Summarize the discussion

Duration: 1.5 Hours

Tip to Facilitator:

- Stress the importance of conducting an evacuation simulation. This can be included in the disaster risk management plan of the community.

Materials Needed:

Pictures of people evacuating or in evacuation centers, flooded communities, earthquake-stricken communities

Power point presentation.

References:

1. Handouts on Training of Trainers in CBDRM, Thaubang District, Myanmar December 16-21, 2004. Conducted by Center for Disaster Preparedness, Inc.
2. Introduction to Disaster Preparedness, Disaster Preparedness Training Programme, International Federation of Red Cross and Red Crescent Societies, July 2000.
3. Citizenry-Based & Development Oriented Disaster Response: Experiences and Practices in disaster Management of the Citizens' Disaster Response Network in the Philippines, Heijmans, Annelies & Victoria, Lorna P.

Community Risk Reduction Measures For Drought, Flood, Earthquake, Landslide and Cyclone

Modular Objectives:

At the end of the module, the participants would be able to:

1. Explain the importance of disaster risk reduction;
2. Identify community disaster risk reduction measures for earthquake, flood, landslide, drought and cyclone.

Number of Sessions: 2

Session 1 : Overview of Disaster Risk Reduction Measures
Session 2 : Disaster Risk Reduction Measures for Drought, Flood, Earthquake, Landslide and Cyclone

Duration : 3.5 Hours

Session-1

Overview of Disaster Risk Reduction Measures

Session Objectives:

1. At the end of the session, the participants would be able to explain the importance of disaster risk reduction measures in the community.

Key Notes:

- Risk Reduction measures refer to solutions, strategies and activities to reduce people's vulnerability and strengthen capacities (including reinforcing people's existing coping strategies). Risk reduction measures are generally known as *preparedness, prevention, mitigation measures*.
- Preparedness measures refer to strategies for timely and appropriate response in emergency situation.
- *Prevention* refers to activities designed to provide permanent protection from the threat of disasters or reduce the intensity or frequency of a hazardous event so that it does not become a disaster.
- *Mitigation* measures are taken in advance of a disaster aimed at reducing its impact on society and the environment.

Methods:

Workshop

Interactive lecture

Process

1. Introduce modular and session 1 objectives to the participants.
2. Divide participants into 2 groups and instruct them to do the following:

   Group 1: What activities can your community undertake to facilitate a timely and appropriate response to an emergency situation (preparedness)? Specify the type of disaster affecting the community flood, landslide, etc.

   Group 2: What activities can your community undertake to protect it from the threat of a disaster, or reduce the impact of a disaster (prevention & mitigation)? Specify the type of disaster affecting the community flood, landslide, etc.

3. Ask participants to present their outputs to the plenary. Encourage participants to make use of other creative means in reporting such as drawing, a simulation of a radio interview, role play, etc.
4. Summarize group presentation. Refer to Key Notes and discuss the following:

What is disaster risk reduction? It is the systematic development and application of policies, strategies and practices to minimize vulnerabilities and disaster risks in a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impact of hazards, within the broad context of sustainable development.

Risk reduction measures are generally known as preparedness, prevention, mitigation interventions, solutions, strategies and activities to reduce people's vulnerability and strengthen capacities (including reinforcing people's existing coping strategies).

Prevention includes activities designed to impede the occurrence of a disaster event and/or prevent such an occurrence from having harmful effects on communities and infrastructure. Examples are flood control measures, land use regulations, poverty alleviation programs, preventative health care and education.

Mitigation includes all measures that can be taken to minimize the destructive and disruptive effects of hazards and thus lessen the magnitude of a disaster. Mitigation can be structural or non-structural.

Examples of structural mitigation measures: building of dams, dikes, sea walls, coastal wind breaks or shelter belts (planting of coconut trees along the beach), mangroves reforestation, permanent houses, relocation to safer location, safe building design. Non structural measures include safety measures at home, in the community and work places, strengthening livelihood and community health, food security program, nutrition improvement, literacy program, advocacy for environmental protection and development issues.

Examples of preparedness measures for timely and appropriate response in emergency situation: public awareness, early warning, search and rescue, first aid, evacuation center management, damage needs capacity assessment, relief delivery, psycho-social counseling & stress debriefing, medical evacuation drill, strengthening coordination and institutional arrangements, stockpile of supplies and logistics.

Summarize discussion by stressing that prevention and mitigation activities are directly linked to community development. Cite examples of improved delivery of social services like preventive health care and education, sustainable livelihoods, education and training programmes, construction of better roads and bridges to facilitate accessibility of the community, are directly linked to development

Duration: 1.5 Hours

Tips to Facilitator:

- Use photos, drawings in explaining the concepts.

Materials Needed:

Photos, illustrations

Flip chart, meta cards

Colored markers

Power point presentation

Reference:

1. Handouts on Training of Trainers in CBDRM, Thaubang District, Myanmar December 16-21, 2004. Conducted by Center for Disaster Preparedness, Inc.

Session-2

Disaster Risk Reduction Measures for Drought, Flood, Earthquake, Landslide, and Cyclone

Session Objectives:

1. At the end of the session, the participants would be able to identify disaster risk reduction measures for drought, flood, earthquake, landslide and cyclone.

Key Notes:

- Please refer to Module 1 Session 2, for the definition of drought, flood, earthquake, landslide and cyclone

Method:

Film or slide show
Interactive lecture

Process

1. Explain session objectives to the participants.
2. Show a film on how a community prepared for and responded to a disaster. After the film, ask the participants the following: what are the types of disasters in the film? What are the activities that the community undertakes before, during and after the disaster? Summarize the points.
3. Review the definition of drought, flood, earthquake, landslide and cyclone in module 1, session 2, and further discuss the following:

Drought

What can the community do to reduce the risk of drought?

Before the Drought:

- establish seed banks and nurseries to ensure a stable supply of seedlings, seeds, cuttings and other plant materials
- community awareness/education to prevent over cropping and overgrazing
- community policy to limit settlements in drought-prone areas
- construction of reservoirs to hold emergency water supplies
- harvest/impound rain water for use in agriculture
- community training on disaster preparedness and emergency response

During the Drought:

- propagation of drought resistant crops (e.g., crops that require less water such as root crops - sweet potato, and indigenous vegetables and legumes)
- education & information drive to generate community appreciation of water management and crop life-saving techniques
- optimum use of all available surface and ground water for irrigation (e.g. minimum

wetting of crops by rotation to extend available irrigation to a larger area)
- diversion of diesel/ fuel/ electricity to power pumps during critical period of crop growth

After the Drought:

- close coordination between agricultural scientists, meteorologists, irrigation engineers and agricultural field staff to inform and assist farmers to adapt agricultural practices
- increase production in favorable areas to make up for losses in seriously affected areas

Flood

What can the community do to reduce the risk of flood?

Before the Flood:

- prepare community risk assessment and hazard mapping to locate the extent of hazard impact and the elements-at-risk people, animals, crops, tools for production, infrastructure
- community awareness activities for people living in hazard-prone areas to make them realize that they live in areas of risks, and to know the appropriate actions to take to protect their lives and properties
- participate in community activities intended to lessen the occurrence of floods e.g., regulate cutting of trees, avoid throwing garbage in rivers, avoid clogging the drainage system, maintain cleanliness of the community
- know the flood warning system & evacuation plan
- keep a stock of drinking water, food that requires a little cooking, transistor radio and batteries, candles, matches, first aid kit
- if warned of flood, evacuate to safe areas before access is cut-off
- flood control measures (construction of dikes, dams, erosion control)
- community training on disaster preparedness and emergency response

During the Flood:

- when warned of flood, move livestocks and household items to higher levels/grounds if you need to evacuate to safe areas, do so before access is cut-off
- be aware of unsafe routes, avoid flood-prone areas
- turn-off electricity and lock your house before evacuating (if there is enough time!)

After Flood:

- be alert to fire hazards like broken wires
- report damaged electricity lines and water source to appropriate agencies
- do not drink water until checked for flood water contamination (construction of dikes, dams, erosion control)

Earthquake

What can the community do to reduce the risk of earthquake?

Before Earthquake

- community risk assessment and hazard mapping to determine which area in the community is along an active fault and/or prone to landslide
- public awareness activities for people living in hazard-prone areas to make them realize that they live in areas of risks, and to know the appropriate actions to take to protect their lives and properties
- prepare and maintain an earthquake survival kit: battery powered radio, flashlight, first aid kit, potable water, food, whistle, dust mask
- community training on disaster preparedness and emergency response
- safer construction of homes

During Earthquake

- move away from steep areas if you are on a mountain or near a steep hillside
- run away from the shore to the higher ground if you feel a very strong earthquake, a tsunami (giant sea waves) may occur
- get away from power lines, posts, walls and other structures that may fall or collapse
- when driving a vehicle, pull to the side of the road and stop; do not attempt to cross bridges or overpasses which may be damaged;

After Earthquake

- if you are inside an old structure, take the fastest and safest way out
- don't enter a partially damaged structure; strong aftershocks may cause these to collapse
- clean-up toxic and flammable materials to avoid accidents

Landslide

What can the community do to reduce the risk of landslide?

Before the landslide:

- prepare community risk assessment and hazard mapping to locate the extent of hazard impact and the elements-at-risk people, animals, crops, tools for production, infrastructure
- work with community members to mitigate landslides like planting trees, bamboos along the riverbanks and slopes, constructing river protection dikes (e.g., using gabion boxes a water detention filter system filled with rocks to stabilize slopes, riverbanks and reconstruct roads), use of terracing technologies in the uplands, planting trees
- regulate cutting of trees
- community legislation and land use regulation
- monitoring, warning and evacuation systems
- use of terracing technologies in the uplands
- community training on disaster preparedness and emergency response to communities located in highly vulnerable areas and exposed to threats like flood, drought, landslides, cyclone, earthquake, etc.

During the landslide:

- when a warning is received, and you need to evacuate to safe areas, do so before the access is cut-off
- turn-off electricity and lock your house before evacuating (if there is enough time!)
- stay in the safe shelters until it is safe to move back

After landslide:

- repair damaged community facilities and structures

Cyclone

What can the community do to reduce the risk of cyclone?

Before the Cyclone:

- prepare community risk assessment and hazard mapping to locate the extent of hazard impact and the elements-at-risk: people, animals, crops, tools for production, infrastructure
- know the cyclone warning system to relay to the community the messages which provide them with information about the existence of danger and what can be done to prevent, avoid or minimize the danger
- Set up an evacuation plan management system where appropriate committees (e.g., health, food, security, etc.) and volunteers from among the evacuees are mobilized
- flood control measures (construction of dikes, dams, erosion control)
- keep a stock of drinking water, food that requires a little cooking, transistor radio and batteries, candles, matches, first aid kit
- community training on disaster preparedness and emergency response to communities located in highly vulnerable areas and exposed to threats like flood, drought, landslides, cyclone, earthquake, etc.
- build cyclone-resistant houses

During the Cyclone:

- when a warning is received, move livestocks and household items to other areas; if you need to evacuate to safe areas, facilitate an organized evacuation before the access is cut-off
- be aware of un-safe routes, avoid flood-prone areas
- turn-off electricity and lock your house before evacuating (if there is enough time!)

After the Cyclone:

- be alert to fire hazards like broken wires
- report damaged electricity lines and water source to appropriate agencies
- do not drink water until checked for flood water contamination (construction of dikes, dams, erosion control)

4. Encourage participants to add information, especially the indigenous strategies to reduce disaster risks. Ask them which among the risk reduction activities/measures presented can be done in their community, which are difficult to be implemented, and why.

Summarize presentation by stressing that although drought, flood, earthquake, landslide and cyclone are the major disasters affecting the country, the community must also address threats of other hazards identified in the hazard assessment.

Duration: 2 Hours

Tips to Facilitator:

- Show film or slides on community preparedness, prevention and/or mitigation activities if available.

Materials Needed:

Easel paper/ flip chart
Colored marking pens

References:

1. Understanding El Niño and Drought, Philippines.
2. Major Hazards, Family and Disaster Preparedness: Guide for Training Families and Communities, Department of Social Welfare and Development, Philippines.
3. A Review of Disaster Management Policies and Systems in Pakistan for WCDR 2005, Islamabad.
4. http://pagasa.dost.gov.ph/genmet/otherinfo.html

Community Risk Management Planning

Modular Objectives:

At the end of the module, the participants would be able to:

1. Discuss the importance of, and process in developing a community risk management plan;
2. Link disaster risk management plan to development.

Number of Sessions: 2

Session 1 : Introduction to Community Risk Management Planning
Session 2 : Planning Workshop

Duration : 2.5 Hours

Session-1

Introduction to Community Risk Management Planning

Session objectives:

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

1. Explain the importance of a community risk management plan;
2. Describe the process of developing a community risk management plan;
3. Link disaster risk management plan to development.

Key Notes:

- Coping mechanisms are what people resort to in order to manage difficult situations.
- Disaster risk management plan is wide-ranging (addresses the needs of the community in all phases of the disaster cycle: pre, during and post); and integrated with the management of community development initiatives.

Methods:

Interactive lecture
Role play
Drawing

Process:

1. Explain the session objectives to the participants.
2. The session starts with a visioning exercise. Present an example below, showing the output of a visioning exercise on "disaster resilient community" prepared by the *Prai* people, an ethnic group living in Houe Toue Village, Hongsa District, a remote community in the northern part of Lao PDR (2006).

Women	Men	Men & Women
Community has good roads, irrigation canals, TV & VCDs, with coconut plantation, secondary school, cooking materials, nice clothes especially for the children. people have the means to take trips out of the village	Iron sheets and nails for house roofing , vegetable seeds, tools for making knives, build gabion boxes to prevent soil erosion, broom-making to earn income, more paddy fields to increase rice production.	Enough drinking water and water container, with electricity, health centers and doctor/nurse, fencing of crops & fruit trees to prevent stray animals from destroying them, toilets, tools for production such as hoes, spades, plough & buffaloes (& know-how), raise variety of animals – goats, poultry, fishponds & fingerlings, water sprinkler, sign board near river to tell people when its dangerous to cross over.

3. Form a separate group for men and women and instruct them to visualize or dream about the kind of "disaster resilient community" or "developed community" they want to attain in relation to disaster risk they have identified during the risk assessment.
4. They can present their visions/dreams in the form of drawing, song, or role-play.
5. The facilitator writes down on the board or flip charts the ideas presented and ask the participants to elaborate and explain why. Note the similarities and differences of outputs between men and women.
6. Summarize discussion by elaborating that while disaster preparedness is necessary and very important, it focuses on the immediate term - reducing damages of a disaster to the community, but not reducing risks and vulnerabilities in the long term. The paradigm shift from emergency management to disaster risk management opens a lot of opportunities to link disaster prevention, mitigation and preparedness to community development planning.

   Review the features of a prepared community, which include, but not limited to the following:

   - Hazard, Capacity & Vulnerability Assessment
   - Capacity Building and Training
   - Evacuation Procedure, Evacuation Area/Temporary Shelter
   - Search and Rescue
   - Community Awareness & Early Warning System
   - Communication Facilities and Logistical Resources
   - Health Services
   - Sustainable Livelihoods
   - General plan (e.g., community development plan) and specific plan (e.g., per sector/issue)

7. Connect discussion to planning.

   Facilitate an interactive discussion of the following:

   Why & What to Plan: Promote and strengthen a "culture of coping with crisis" and a "culture of disaster reduction"

   People in the most poor communities resort to coping mechanisms in order to survive the adverse effects of disasters. Coping mechanisms are what people resort to in order to manage difficult situations. These however can become vulnerabilities if they have damaging effects to the environment and people's livelihoods in the long term - like uncontrolled gathering of forest products and "slash and burn" technique to clear land for cultivation.

   CBDRM interventions promote a culture of risk reduction in the communities. The disaster risk management plan:

   - is wide-ranging and integrated with the management of development initiatives;
   - addresses the needs of the community in all phases of the disaster cycle (pre, during and post);
   - guides the community's progression to safety, disaster resilience and community development.

Community Planning Process Towards Disaster Risk Management. Planning is a process, not a product**.** Hence:

- there is a need for local structures and institutions to drive and coordinate it;
- linkages with on-going development initiatives in neigbouring and surrounding areas are needed;
- local government must have a fundamental role in the process;
- must involve participation and local ownership of community members;
- must be sustainable.

How to Plan. The basis of activities to reduce disaster risks is a thorough assessment of the community's exposure to hazards and analysis of their capacities and vulnerabilities. In drafting a participatory disaster risk management plan, the following steps can be followed:

a. Facilitate a "visioning" exercise among community members about their dream of a "disaster resilient", developed community. Relate these with risk reduction measures: preparedness, prevention, mitigation.

b. Enumerate hazards identified (in the HCVA) according to priority; enumerate problems brought about by the identified priority hazards.

c. Discuss each priority problem identified.

d. Set objectives in addressing each problem.

e. Identify risk reduction activities to address the problem.

f. Identify persons/groups to take charge in implementing the activity.

g. Identify resource requirements. Facilitators ask community members what resources are needed to implement the risk reduction measures; which of these are available within the community and which they can get from external groups/agencies/persons.

h. Set the time frame for the completion of the activity.

i. Set monitoring indicators. When setting indicators, we need to clarify what we want to know, what changes we want to happen and how we can monitor these changes. Good indicators are(C. Shutt, 2003, ADPC):

- **specific** and reflect things that the project wants to control
- **direct** - closely tracks results
- **verifiable** - can be checked
- **measurable**
- **sensitive enough** to cover changes over time
- **time-bound** - when a change is expected
- **adequate** - provide enough relevant information

8. Present the example (at the next page), showing a part of a community disaster risk management plan prepared by ethnic group in Samakhi Village, in the northern part of the Lao PDR.

9. Open the floor for questions and clarifications from the participants.

Hazard	Objective	Activity	Responsibility	Resources Needed		Period	Indicators
				Existing	To Look For		
1. Animal Epidemic (buffaloes, chickens, cows)	Treat sick animals; prevent epidemic; increase animal production; earn income	Technical training for animal raising; training of village veterinary volunteers; vaccination of animals	Village veterinary vols (2).; DAFO, CARE	Village volunteers	Vaccination supplies, technical experts, cash	Start in March	90% of sick animals vaccinated & treated
2. Forest fire	To protect forests & wildlife	Village regulation on fire prevention; prepare local materials in putting off fire – e.g., buckets, ladder, bamboo pole; train people on fire prevention & protection	Village, VDMC, DAFO, CARE	Labour, local materials	Other materials, supplies	March '06	Village regulation in place by March; materials available in March
3. Drought & pests	Reduce rice shortage during dry season; control pests from spreading	Training on pest management; multi cropping	Village, DAFO, CARE	Labour & local materials	Technical expertise & crop varieties from DAFO & CARE	June '06	10 hhs attend pest managerment training; 4 hhs to start multi cropping

Summarize discussion by stressing that in order to finalize and operationalize the community disaster risk management plan (also known as counter disaster plan, community development plan, community action plan, etc.) there is a need for coordination to strengthen cross sector collaboration (horizontal) and coordination between national, provincial and district level (vertical).

Duration: 1 hour

Tips to Facilitator:

- Facilitate a brief visioning exercise to connect the discussion to planning.
- This session is an application of all the theories that they acquired.
- Always remind the participants of the results of the risk assessment that they conducted. From these results, they will come up with achievable disaster risk reduction measures

Materials Needed:

Easel paper/Flip charts
Coloured marking pens
Power point presentation

References:

1. Remote Areas' Disaster Preparedness & Response Project, Care International in the Lao PDR, March 2006 (Consultant's Report)
2. Disaster Risk Reduction Programme, Concern Worldwide, Timor Leste, 2005 (Consultant's Report)
3. Good Practice Review, DRR by John Twigg, Good Practice Review 9, Humanitarian Practice Network, Overseas Development Institute.
4. CBDRM Field Practitioners' Handbook, I. Abarquez & Z. Murshed, ADPC.
5. 4B: Project Development, Monitroing & Evaluation in Disaster Situations, Citizens' Disaster Response Center.
6. Project Documents, Care International, Lao PDR, 2005.

Session-2

Planning Workshop

Session Objectives:

1. At the end of the session, the participants would be able to draft a community management reduction plan for at least one (1) year.

Methods:

Workshop
Plenary discussion

Process:

1. Introduce the session and its specific objectives.
2. Guide the participants to do the plan.
3. From the results of risk assessment they conducted, they will apply doable risk reduction measures.
4. Divide the group into 3 small groups. Assign each group to prepare a plan for a specific hazard identified in the risk assessment. For example: group 1 to discuss landslide etc. Supervise their planning.

Duration: 1.5 Hours

Tips to Facilitator:

- Emphasize that the plan should be SMART. Usually this means **S**PECIFIC, **M**EASURABLE, **A**CHIEVABLE, **R**EALISTIC, **T**IME BOUND. In participatory planning, the A in SMART can also mean ACCEPTABLE TO ALL CONCERNED.
- Encourage participants to think various doable risk reduction measures for hazards such as earthquake, landslide, drought, flood and cyclone.
- This is the culmination or the application of all the theories they learn for the past 4 days.
- Participants must be encourage to put into action all the knowledge that they acquired in this training

Materials Needed:

Easel paper/Flip charts
Coloured marking pens
Power point presentation

References:

1. Good Practice Review, DRR by John Twigg, Good Practice Review 9, Humanitarian Practice Network, Overseas Development Institute.

2. CBDRM Field Practitioners' Handbook, I. Abarquez & Z. Murshed, ADPC.

3. 4B: Project Development, Monitroing & Evaluation in Disaster Situations, Citizens' Disaster Response Center.

4. Sustainable Community Based Disaster Management (CBDM) Practices in Asia: A User's Guide, edited by Rajib Shaw and Kenji Okazaki, published by United Nations Centre for Regional Development (UNCRD), Disaster Management Planning Hyogo Office, December 2004.

Checklist of Key Indicators for Participation and Empowerment of the Community within CBDRM

Key Indicators	
1. Ability to manage – plan, develop, and maintain community property resources, which include public infrastructure	
2. Existence and effective management of community fund	
3. Transparent and accountable behaviour vis-à-vis decisions and transactions. Ability to be accountable.	
4. Extent of people participating from all sections in key community meetings. At least 60% participation.	
5. Regular attendance and active participation by all committee members in committee meetings.	
6. Increase in number of people within the community who serve as skilled, informed or knowledgeable resource people within the community since the start of CBDM	
7. Number and nature of community norms and legislations developed by the community for ensuring safety of that community.	
8. Existence and active functioning of customs or systems for generating people's contribution for developing common facilities.	
9. Ability to negotiate with State and execute State-owned implementation.	
10. Availability and access by the community to equipment and tools in case of emergencies – cranes, cutters, trawlers, etc.	
11. Extent and nature of handling violation of codes and norms leading to higher risks within communities.	
12. Extent of women's `role in decision-making and management of CBDM processes.	
13. Level of needs assessment skills within the community.	
14. Extent and nature of demand for capacity building. Number of people within the community who have undergone various capacity-building processes,	

United Nations Development Programme - Pakistan

House No. 12, Street No. 17, Sector F-7/2, Islamabad, Pakistan

Phone: +92-51-8255600 Fax: +92-51-2655014

Website: www.undp.org.pk