Participants' Workbook

Community Based Disaster Risk Management

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Humanitarian Aid

(Participants' Workbook)

Community Based Disaster Risk Management

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Participants' Workbook

Community Based Disaster Risk Management

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

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 Workbook?

This workbook is designed for the participants of the Community Based Disaster Risk Management Training. It contains following six modules. The structure of this workbook is as follows:

Module 1 : Introduction to Community Based Disaster Risk Management
Module 2 : Disaster Risk 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 : Disaster Risk Management Planning

Module 1 describes the disaster management experiences in the community and relates them to the Pakistan disaster situation. This module also explains the concepts and approaches in community based 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 based 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 session has the following parts:

Session Objectives 	Explain what the session aims to achieve
Key Notes 	Provide a brief definition of concepts
Actions & Reflections 	Contain questions/activities to enhance participant's learning
Handouts 	Contain the reference material

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Introduction To Community Based Disaster Risk Management

Modular Objectives:

At the end of the module, 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 community based disaster risk management.

Number of Sessions: 3

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

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 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 may cause damage and harm.

Actions & Reflections:

1. What is the disaster situation in your community and what are the disasters experienced in the past?

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2. How did the community, households and individuals prepare for, respond to, and recover from disasters?

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3. Who and what agencies assisted the community?

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Session-2

Overview of Pakistan Disaster Situation

Session Objectives:

At the end of the session, 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 floods.
- Other events that threaten the country are human induced hazards like health epidemics, civil unrest and terrorism, 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 northern areas of Pakistan-administered Kashmir have an average annual temperature of 27^0C, with elevations varying from -30^0C to -10^0C during the coldest months, while the warmest months in Punjab, Sindh, and Balochistan Plateau reaches 50^0C.
- The topography varies from coastal beaches, sand 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 downslope movement of soil and rock triggered by earthquake, flood or heavy continous 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 level necessary for sustaining plant, animal and human life.
- Cyclone refers to wind currents that spin and organize around deepening low pressures that accelerate towards the center and move along tracks pushed by trade winds. When the cyclone strikes land, high winds, exceptional rainfall, and storm surges cause damage with secondary flooding and landslide.

Actions & Reflections:

1. What are the types of disasters that strike Pakistan?

2. What are the causes of disasters?

3. What are damages to households and community brought about by the disaster?

Session-3

Terms and Concepts

Session Objectives:

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

1. Explain the concept and activities of disaster risk management, the difference between hazards and disasters, and the relationship of hazard, vulnerability and capacity with disaster risks;
2. Explain the importance of 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 or probability of individuals, households and community suffering damage or loss from a hazard.
- **Disaster Risk Management** refers to activities which are undertaken to reduce vulnerabilities and increase capacities of the community.
- **Preparedness Measures** refer to strategies for timely and appropriate response in emergency situation examples include disaster preparedness training, hazard monitoring, early warning system, public awareness, evacuation, stockpiling, contingency planning, etc.
- **Emergency Response** activities include search and rescue, first aid, damage needs capacity assessment, evacuation center management, medical services, relief distribution.
- **Prevention Measures** are those 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.

- **Community Based Disaster Risk Management** involves activities, measures, projects and programs 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.

Handouts

BASIC CONCEPTS

1. HAZARD

- Phenomena, event, occurrence or human activity which has the potential for causing injury to life or damage to property and the environment.

Types of hazards:

a. Natural - typhoon, earthquake, volcanic eruption, tsunami;

b. Human-made - fire, pollution, oil spill, industrial accidents like leakage of toxic waste;

c. Combination of both or socio-natural hazards - flooding and drought can fall under this category if it is due to deforestation.

2. VULNERABILITY

- Physical, social, economic, cultural and environmental factors and conditions which increase the community's susceptibility to disasters.
- These factors adversely affect the ability of individuals, households and the community to prepare for and respond to hazards.
- Weaknesses, constraints or problems present in the community which hinder it from preparing for and protecting itself from incurring damage and loss.

Some examples of vulnerability:

a. Locations
b. Houses made of light materials
c. Conflict in the community
d. Lack of knowledge and skills on preparedness and protective measures
e. Attitude of helplessness

3. CAPACITY

- Knowledge, skills, resources, abilities present in individuals, households and the community which enable them to prevent, prepare for, withstand, survive and recover from a disaster.

Some examples of capacity:

a. Permanent houses,

b. Land ownership
c. Adequate food and income sources
d. Family and community support in times of crises
e. Local knowledge
f. Strong community leadership and organizations

4. DISASTER

- Disaster occurs when a hazard impacts on or strikes a vulnerable community with low capacity resulting in damages, loss and serious disruption of community functioning.
- The widespread human, material and environmental losses exceed the community's ability to cope using its own resources.

5. DISASTER RISK

- Likelihood of a hazard striking a vulnerable community, causing injury, damage and loss.
- The bigger the vulnerability, the bigger the disaster risk (DR); The bigger the Capacity, the smaller the disaster risk (dr).
- Disaster Risk = $\frac{\text{Hazard x Vulnerability}}{\text{Capacity}}$

6. ELEMENTS AT RISK

Who and what can be damaged:

- People (their lives and health)
- Household and community structures (houses, community center, school)
- Community facilities and services (access roads, bridges, hospital, electricity, water supply, etc.)
- Livelihood and economic activities (jobs, crops, livestock, equipment, etc.)
- The environment (natural resources base)

DISASTER MANAGEMENT: OBJECTIVES AND ACTIVITIES

1. Disaster Management

- Range of activities designed to maintain control over disasters and emergency situations and to provide a framework for helping at risk persons avoid or recover from the impact of the disaster.
- A collective term for all activities that contribute to increasing capacities and reducing immediate and long-term vulnerabilities. It covers activities before, during and after a disaster.

2. Objectives

a. To increase capacities and resilience;
b. To reduce vulnerabilities;
c. To avoid or reduce human, physical and economic losses suffered by individuals, families, the community and the country;

d. To speed up recovery after the disaster;

e. To reduce personal suffering;

f. To provide protection to refuges or displaced persons whose lives are threatened by armed conflicts.

3. Activities

a. Before the disaster - prevention, mitigation and preparedness

- **Some examples of Prevention and Mitigation Measures**:

  Structural measures: dikes, dams, drains, sea walls, raising of roads and houses, earthquake resistant construction, permanent houses

  Non-structural measures:

  - Safety measures
  - Community health and sanitation (improving nutrition, keeping the community clean, immunization, herbal gardens, training of community health workers)
  - Strengthening livelihood and economic activities (sustainable agriculture, income generating projects, handicrafts, marketing cooperatives)
  - Planting coastal shelter belts like coconut trees; reforestation; mangroves reforestation
  - Building codes
  - Legislation supporting community based disaster management and environmental protection;
  - Savings
  - Insurance
  - Policy study and advocacy

- **Some Examples of Preparedness Measures:**

  - Individual, family and community preparedness measures: knowing what to do before, during and after a disaster for cyclone, earthquake, tsunami, volcanic eruption, drought
  - Disaster preparedness training
  - Community early warning system
  - Public awareness activities - public awareness campaigns such as community meetings and house-to-house information dissemination, posters and pamphlets, poster making contest among school children, disaster consciousness day/ week/month
  - Formulation of community counter disaster plan or disaster management plan
  - Formation and strengthening of community disaster management organization
  - Evacuation drills and disaster simulation exercises
  - Strengthening coordination, networking and institutional arrangements
  - Ensuring availability of relief supplies (stockpile) and logistics
  - Evacuation

b. **During the disaster** - emergency responses

- **Some Examples of Emergency Responses:**
  - Evacuation and evacuation center management
  - Search and rescue
  - First Aid and Medical Assistance
  - Damage Needs Capacity Assessment
  - Relief delivery (food and drinking water; non-food items such as clothing, blankets, kitchen utensils…)
  - Psycho-social counseling (comforting, critical stress debriefing)
  - Repair of critical facilities and services
  - Emergency Operations Center (for major disaster)

c. **After the disaster** - recovery: rehabilitation and reconstruction

- **Some examples of Recovery Activities:**
  - Cleaning up the debris
  - Rebuilding and strengthening of damaged structures
  - Relocation to safe places
  - Income generating projects

COMMUNITY BASED DISASTER RISK MANAGEMENT (CBDRM) APPROACH

1. What is the CBDRM Approach?

Activities, measures, projects and programs to reduce disaster risks are primarily designed by people living in high risk communities, and are based on their urgent felt needs and capacities.

2. Features of CBDRM

- People's participation - community as the main actor and propeller; directly shares in the benefits of risk reduction and development
- Priority for the most vulnerable - children, women, elderly, differently abled, subsistence farmers and fisherfolk, urban poor
- Recognizes existing capacities and survival/coping strategies
- Risk reduction measures are community specific - based on analysis of the community's disaster risk
- Aim of CBDRM - reduce vulnerabilities and increase capacities
- Goal - building safe, disaster resilient and developed communities
- Links disaster risk reduction with development
- Outsiders are facilitators and supporters

3. Principles of CBDRM

- Participatory process and content
- Responsive - based on the community's felt and urgent needs
- Integrated - DM activities before, during and after disaster; linkages with other communities and the various levels of the disaster management system
- Proactive - stress on prevention, mitigation and preparedness
- Comprehensive - structural and non-structural risk reduction measures; mix of short-, medium-, and long-term measures to address vulnerabilities
- Multi-sectoral and multi-disciplinary - considers roles of all stakeholders; combines local knowledge and resources with science and technology and support from outsiders
- Empowering - people's options and capacities are increased; more access to basic social services; more control over the natural and physical environment; builds confidence to participate in other development endeavors
- Developmental - community development gains are protected; measures to address vulnerabilities are opportunities for development

How to do CBDRM?

a. Initiating the Process - selecting the community or community asks for assistance how to have CBDM; building rapport

b. Community Profiling - initial understanding of the community situation and an orientation on CBDRM

c. Community Risk Assessment - hazards, vulnerabilities and capacities assessment and consideration of people's different perceptions of risks

d. Initial Community Disaster Management Plan - appropriate and do-able measures before, during and after the disaster; focus on prevention, mitigation and preparedness measures; short-, medium-, long-term disaster management activities

e. Formation and Strengthening of Community Disaster Management Organization - ensures implementation of Community Disaster Management Plan

f. Community Managed Implementation - implementation of short-, medium-, long-term measures to reduce vulnerability and increase capacity; structural and non-structural measures

g. Monitoring and Evaluation - continuous improvement of CBDM

Actions and Reflections:

1. What are the existing hazards in your community ?

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2. What is the difference between hazard and disaster?

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3. Can disasters be prevented? Why?

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4. What is disaster risk management?

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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 Systeme and Disaster Risk Management in Azad Jammu & Kashmir (AJ&K)

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-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 the approval of the annual development plan and budgetary proposals of the Union Administration.
- Village Council and Neighborhood 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.

Features of a disaster prepared community:

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/organizations

The following is the summary of roles and responsibilities of local government officials and public departments with regard to disaster risk management:

District/Municipal Disaster Management Authority: Undertakes appropriate preparedness measures at district/municipal level and organize emergency response through District/Municipal Emergency Operations Centre (D/MEOC).

Zila Nazim: Takes 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 programs/projects.

Union Administration: Assists relevant authorities in disaster preparedness and emergency 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 Neighborhood Council: Makes arrangements to prevent and mitigate disasters in the community e.g., measures to prevent water contamination and ensure sanitation through proper disposal of garbage.

Opportunities for Enhancing Community Based Initiatives through the Community Based Organizations (CBOs) and Citizen Community Boards (CCBs)

- 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.

Public Departments

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

Education: Develops curriculum for schools, colleges and universities on disaster risk reduction, particularly in hazard-prone areas; adds features in schools in hazard prone areas for use as emergency shelters such as facilities for water, sanitation and cooking.

Forestry: Undertakes vulnerability assessment, implement programmes for conservation and rehabilitation of natural resources and develops mechanisms for assessment of environmental losses and damages in the aftermath of disasters.

Revenue: Allocates 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.

Agriculture: 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; provides inputs like seeds, fertilizers and agriculture equipments to those affected by disasters

Health: Stockpiles medical supplies and provide timely first aid and medical services and supplies to affected population.

Works and Services: Coordinates assessment of the extent of damages to roads and structures in the community and facilitate emergency repairs to restore public transport routes.

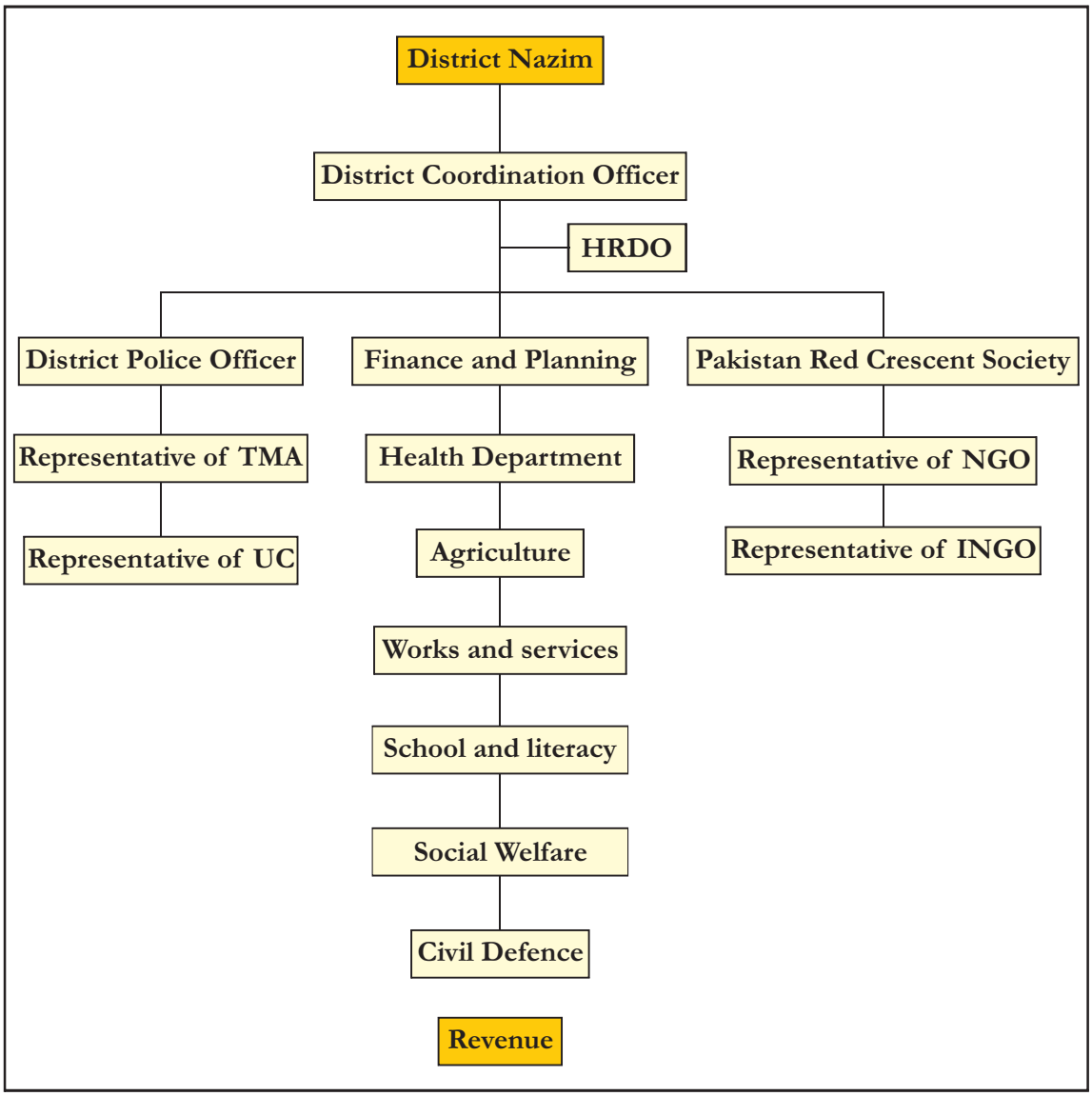
Information and Technology: Implements programmes on awareness raising of vulnerable communities in high risk areas and develops a plan to ensure availability of communication services in case a disaster occurs.

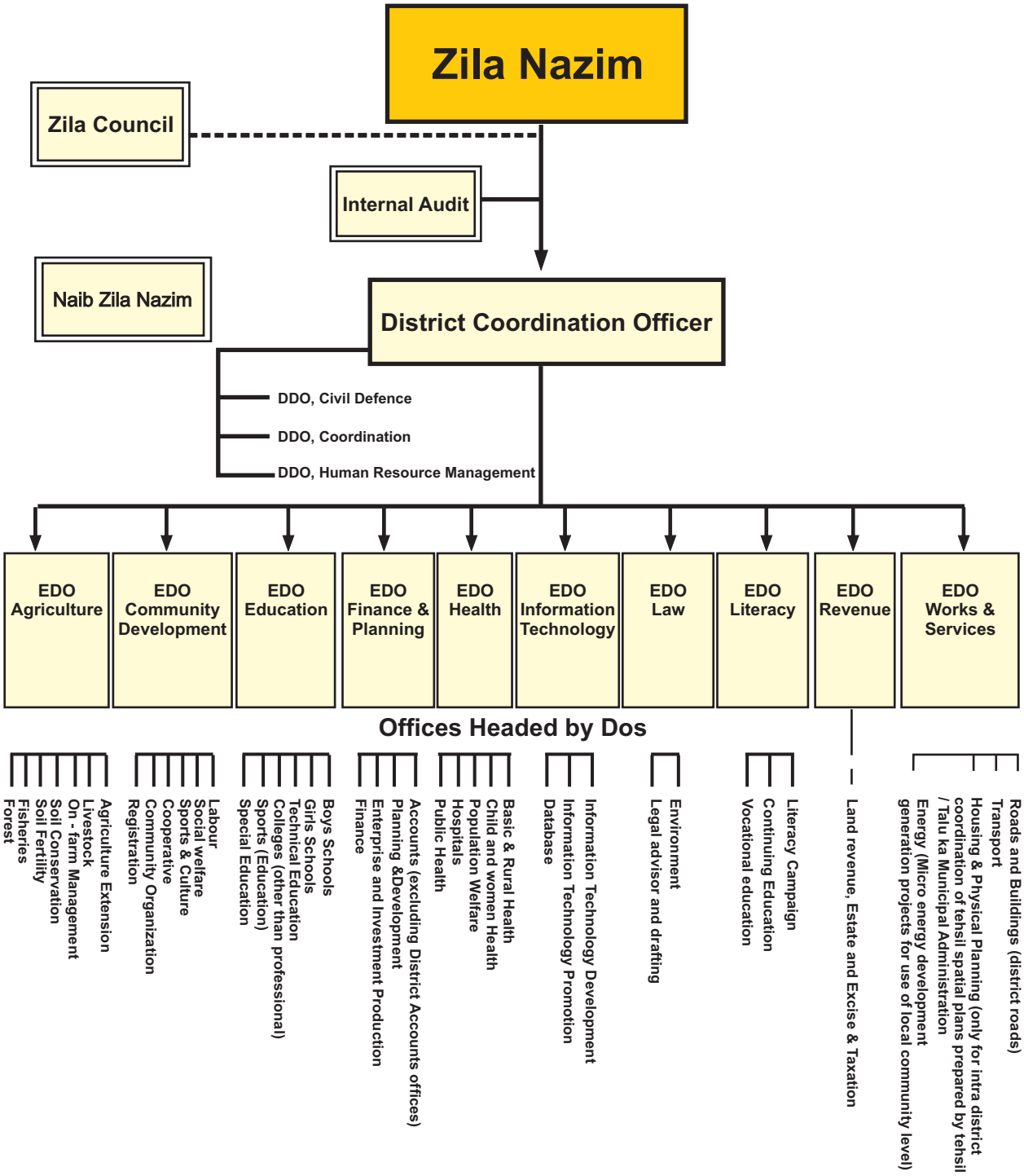
School and Literacy: Conducts assessment to identify most vulnerable social groups in hazard-prone areas and allocate funds for disaster preparedness and vulnerability reduction activities for the most vulnerable social groups.

Finance and Planning: Mobilizes resources of the district by coordinating with other departments in providing emergency assistance to affected population.

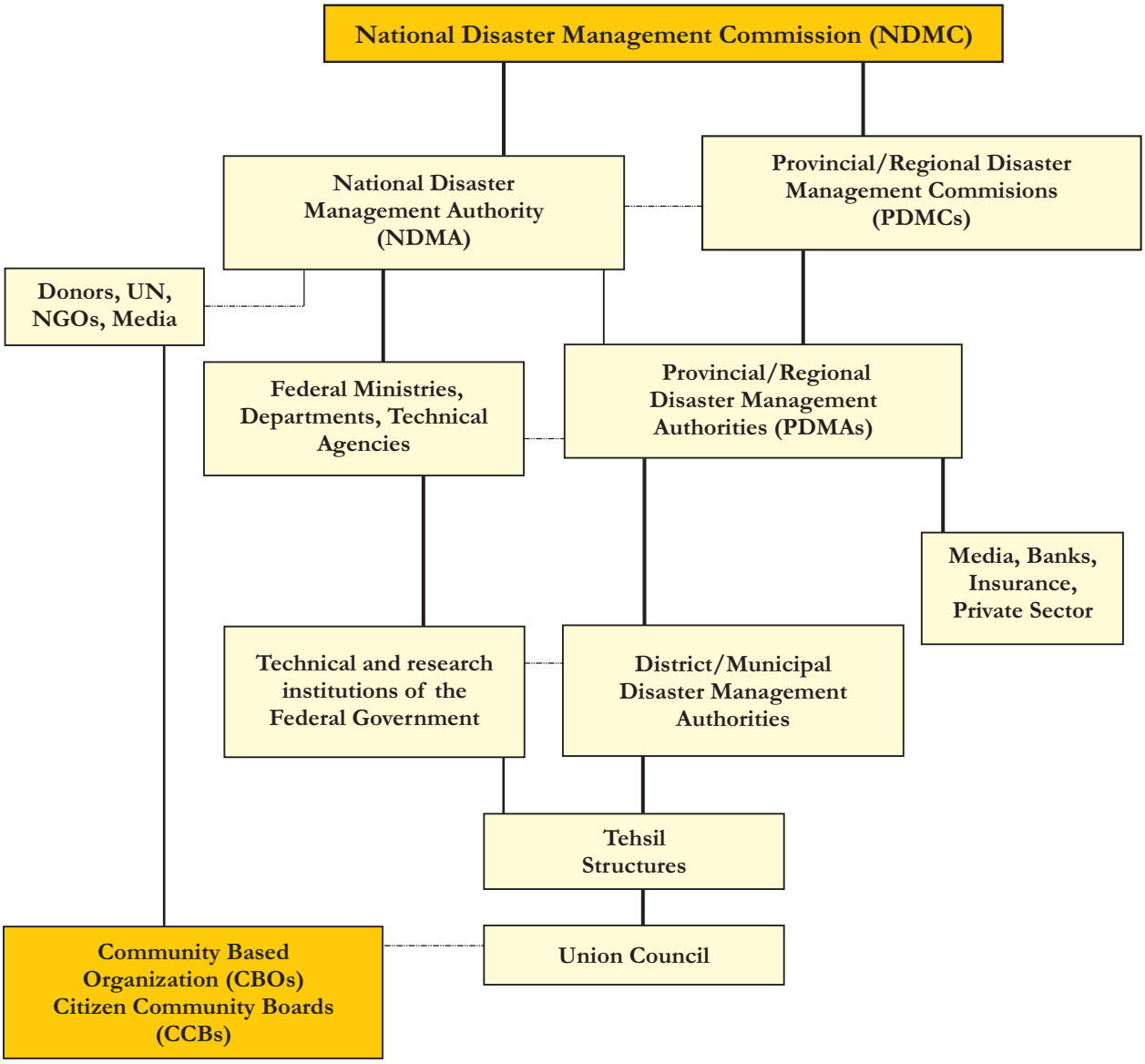
Handouts

DDMA STRUCTURE AND MEMBERS




Zila Nazim
Zila Council
Internal Audit
Naib Zila Nazim
District Coordination Officer
DDO, Civil Defence
DDO, Coordination
DDO, Human Resource Management
EDO Agriculture
EDO Community Development
EDO Education
EDO Finance & Planning
EDO Health
EDO Information Technology
EDO Law
EDO Literacy
EDO Revenue
EDO Works & Services
Offices Headed by Dos
Agriculture Extension
Livestock
On - farm Management
Soil Conservation
Soil Fertility
Fisheries
Forest
Labour
Social welfare
Sports & Culture
Cooperative
Community Organization
Registration
Boys Schools
Girls Schools
Technical Education
Colleges (other than professional)
Sports (Education)
Special Education
Accounts (excluding District Accounts offices)
Planning &Development
Enterprise and Investment Production
Finance
Basic & Rural Health
Child and women Health
Population Welfare
Hospitals
Public Health
Information Technology Development
Information Technology Promotion
Database
Environment
Legal advisor and drafting
Literacy Campaign
Continuing Education
Vocational education
Land revenue, Estate and Excise & Taxation
Roads and Buildings (district roads)
Transport
Housing & Physical Planning (only for intra district coordination of tehsil spatial plans prepared by tehsil / Talu ka Municipal Administration
Energy (Micro energy development generation projects for use of local community level)

STRUCTURE FOR DISASTER RISK MANAGEMENT



Actions and Reflections:

1. What are the roles and responsibilities of public departments in community disaster risk management?

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2. What are the opportunities provided by the National Disaster Risk Management Framework and the Local Government Ordinance to enhance disaster risk management initiatives of Community Based Organizations and Citizen Community Boards?

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Session-2

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

Session objective:

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

Key Notes

- **Public departments** in AJ&K 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: 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: Takes charge of stockpiling and distribution of food and other items.

  Education Department: Designs disaster management programme for teachers and students and incorporates 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: Facilitates training on rescue and relief work and conduct search and rescue during a disaster situation.

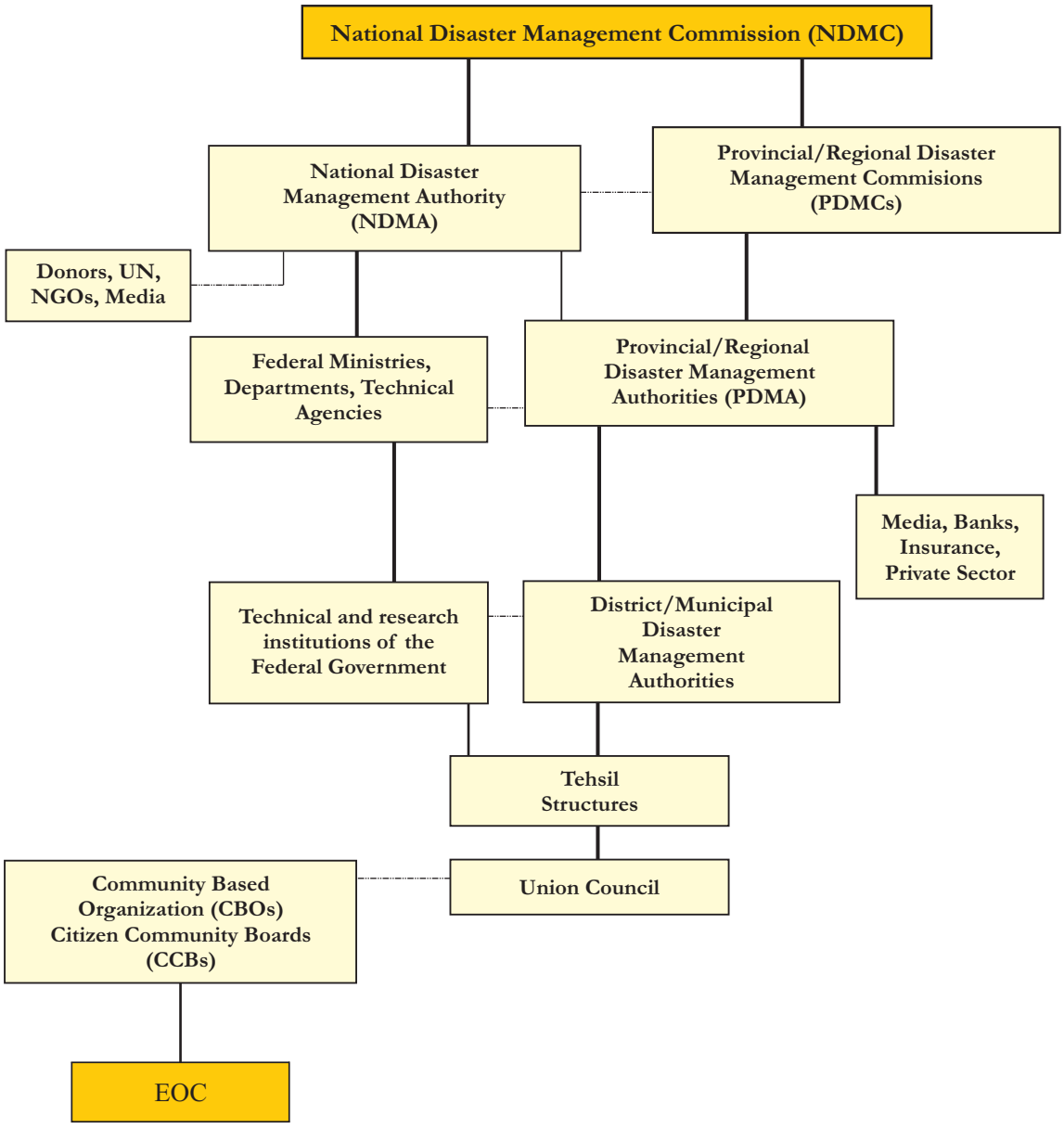
  Food: Takes charge in stockpiling of food supplies and distribution of food aid to affected population.

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

Opportunities for Enhancing Community Based Initiatives through CBOs:

- 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.

Handouts



Actions & Reflections:

1. What are the roles and responsibilities of public departments in community based disaster risk management ?

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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 perceptions 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: Disaster Risk Assessment Fieldwork

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.

Handouts:

PEOPLE'S PERCEPTIONS OF RISK

- People's vulnerability and how they perceive or view disaster risks are influenced by socio-economic status.
- Aside from income levels, age, gender, educational background, livelihood and employment and culture are important considerations in assessing that why people have different ways of looking at the community disaster situation.
- People's perception of disaster risk is also influenced by previous experiences and knowledge (or lack of) of their exposure to hazards and the specific preparedness and mitigation measures to undertake before, during and after the disaster.
- Community members and external agencies e.g., NGOs, local and national government agencies may also have differing perceptions of the disaster risk.
- The community risk assessment process provides the venue to share these different views or perceptions. It results in a common understanding of the community's disaster situation which becomes the basis for common actions to take in disaster risk management.
- The community risk assessment process combines local knowledge with scientific and

technical information (which outsiders usually bring into the community)

- Various tools are used in risk assessment to bring to the open different views and validate information.

PURPOSE OF COMMUNITY RISK ASSESSMENT

- Unites the community in a common understanding of their disaster risk -- hazards, vulnerabilities and capacities
- Basis for identifying appropriate and adequate risk reduction measures
- Contributes to community awareness raising about potential risk they did not know before
- Baseline data on the community situation -- its vulnerabilities and capacities -- when compared with data at a later period can be used to evaluate the results of the community disaster preparedness activities
- Data generated can be used in situational analysis and needs for projects proposals for mitigation and community development projects

COMPONENTS OF COMMUNITY RISK ASSESSMENT

Community Risk Assessment has 4 inter-related components:

- Hazard Assessment - assessing the nature and behavior of hazards
- Vulnerability Assessment - identifying the particular elements at risk and why they can be damaged
- Capacity Assessment - identifying how people's survival or coping strategies and what resources can be used in disaster management activities (before, during and after a disaster)
- People's Perceptions of Risk - understanding the perception of risk of different groups and sectors of the community

DATA GATHERING PLAN FOR COMMUNITY RISK ASSESSMENT

- Formation and orientation of the community risk assessment teams.
- What are the data and information needed?
- What are the tools which can be used? Recognize that not all tools are suited to all situations and social groups.
- Who and where are the sources of the information needed? From whom or where can the data be gathered?
- When will these participatory tools be used? What is the sequence of tools to be used?
- What are the roles of team members? If more than one team, which team will do what? Within each team, who will act as the facilitator & process observer, documenter?

Actions & Reflections:

1. What is risk assessment?

2. What is the purpose of community risk assessment?

3. Why is it important to get the people's perceptions in doing risk assessment?

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.
- 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.

Handouts

Hazard Assessment Matrix

- **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).

Sample of Hazard Assessment Using Hazard Matrix

Hazard Assessment	Origin	Warming signs and signals	Period/speed	Force	Frequency	Time	Duration
Tsunami	Rainfall Snowmelt	Scientific Indigenous Animals Historical recording	Rapid onset	Seismic Hydro Water gushing	Not established		minutes
Earthquake	Water contamination No sewerage Water stagnation Pollution of water channels	Indigenous Animal behavior Cyclic reoccurrence Sounds/whistling from ground	Highly Rapid/ no forewarning	Movement shakes	Not established		seconds
Flood	Rainfall Snowmelt dam siltation	Monsoon Sudden rise in temperature	Rapid onset	Water volume	Seasonal/ annual		Weeks
Epidemic	Water contamination No sewerage Pollution of water channels	Monsoon flooding Disease outbreak	Rapid onset	Pathogenic vectors/ microbes	seasonal		months

Hazard Map

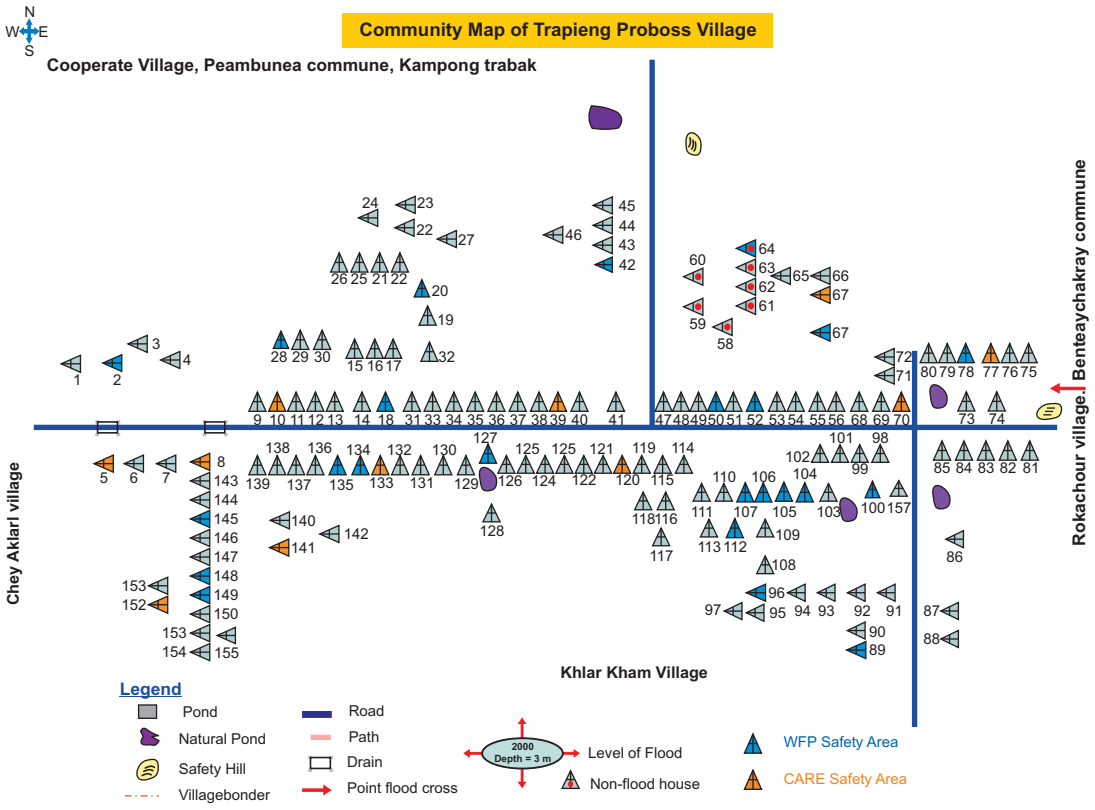
Hazard map must be hazard specific. Remember that a hazard has its own nature and behaviour.

Take note of the following in preparing the hazard map:

- 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

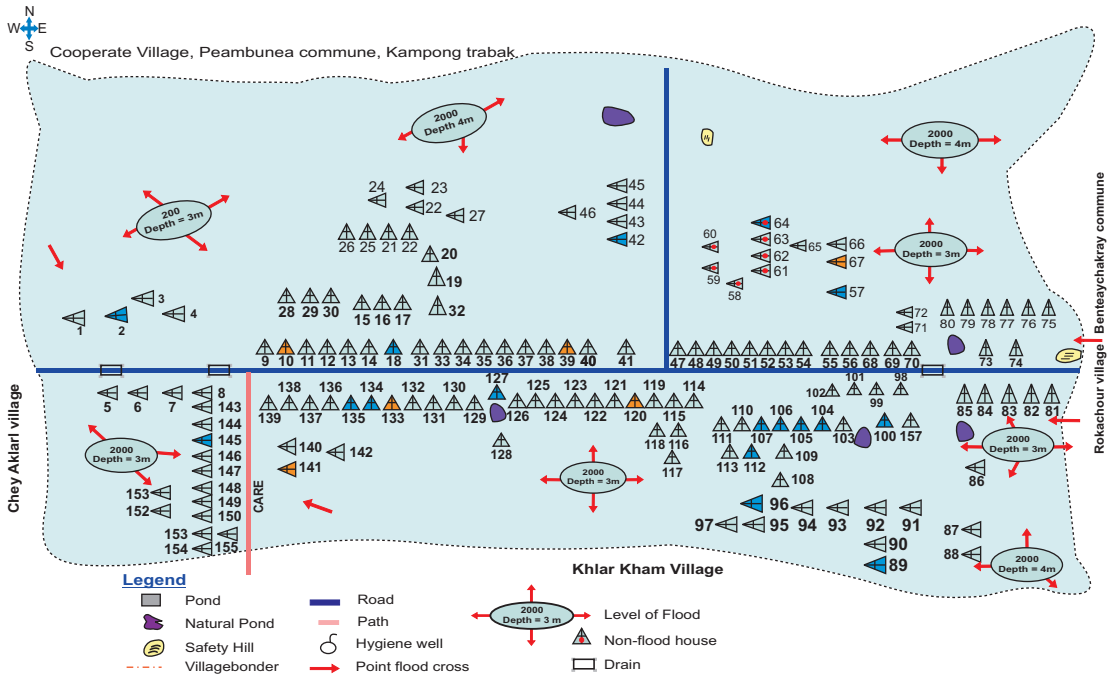
Tips in doing the community hazard map:

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 hazard map.

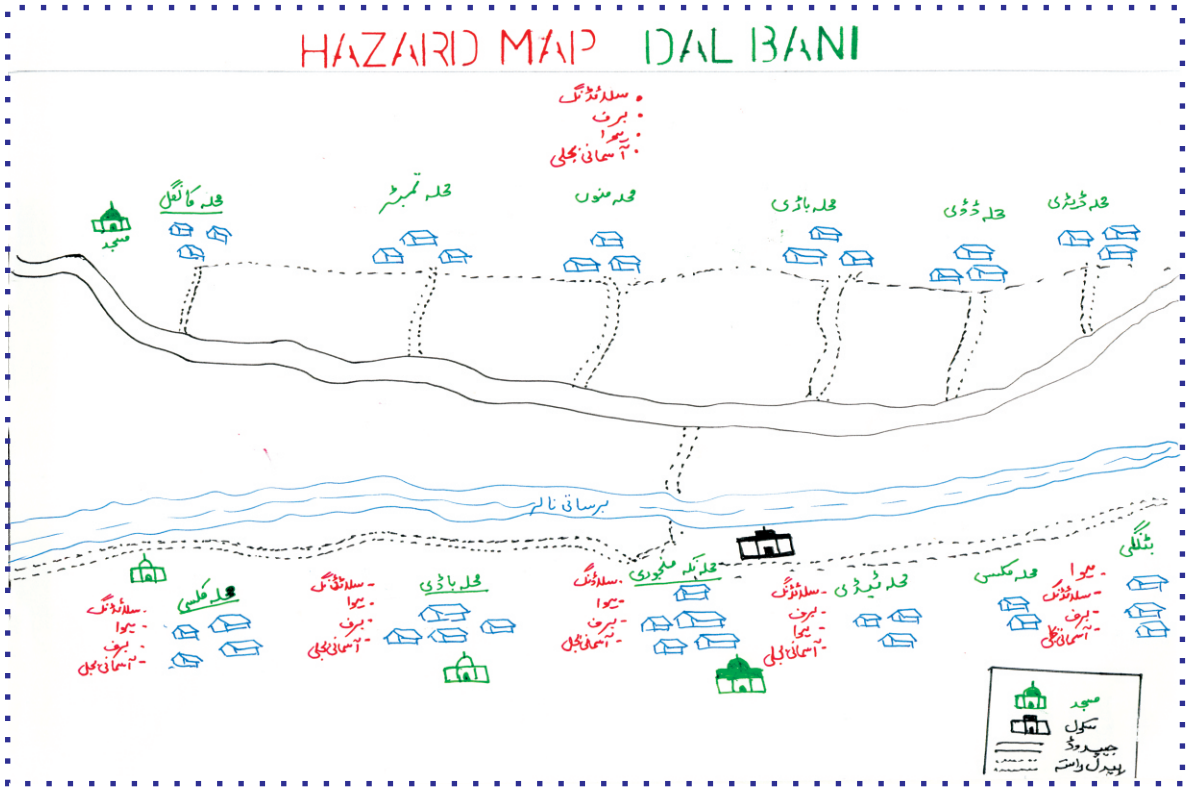


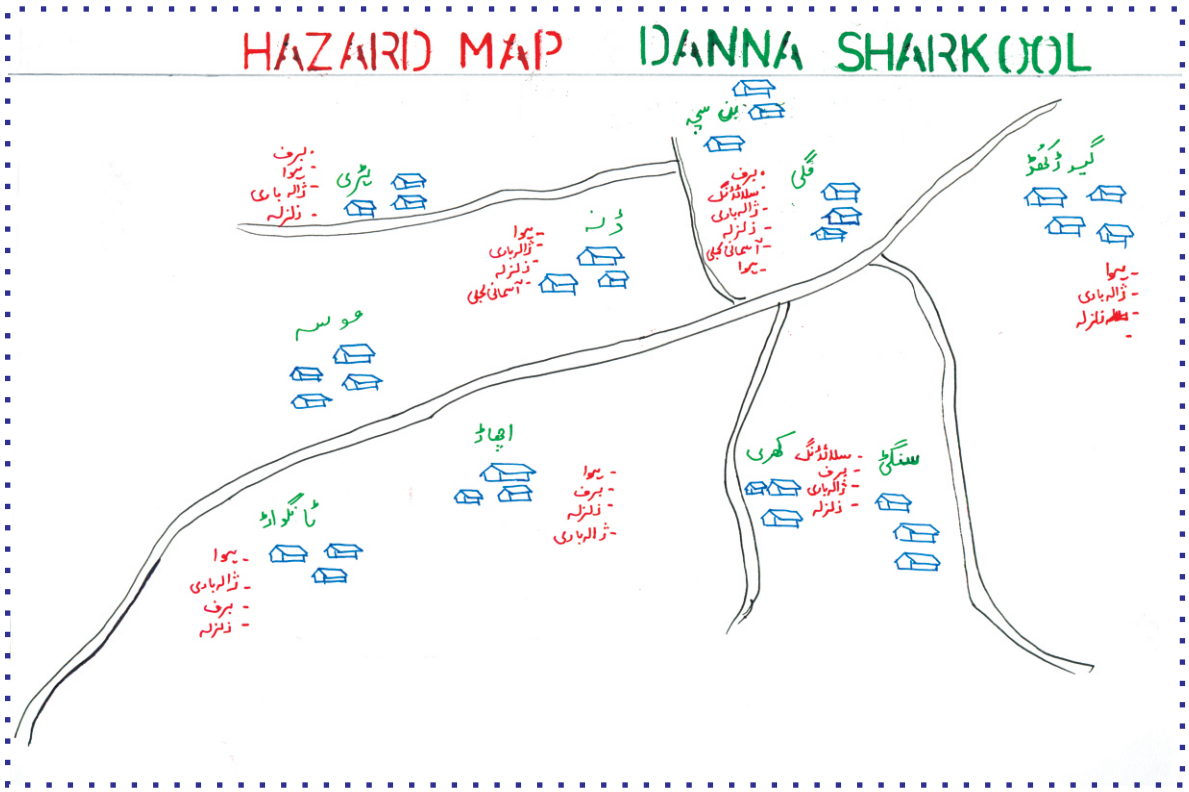
B. From the community map, overlay one plastic sheet and use colored pen to mark the particular areas, houses, facilities that are vulnerable to a specific hazard. Put one plastic sheet overlay and use one color per hazard. The hazard map shown at the next page uses a blue marker pen to indicate the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

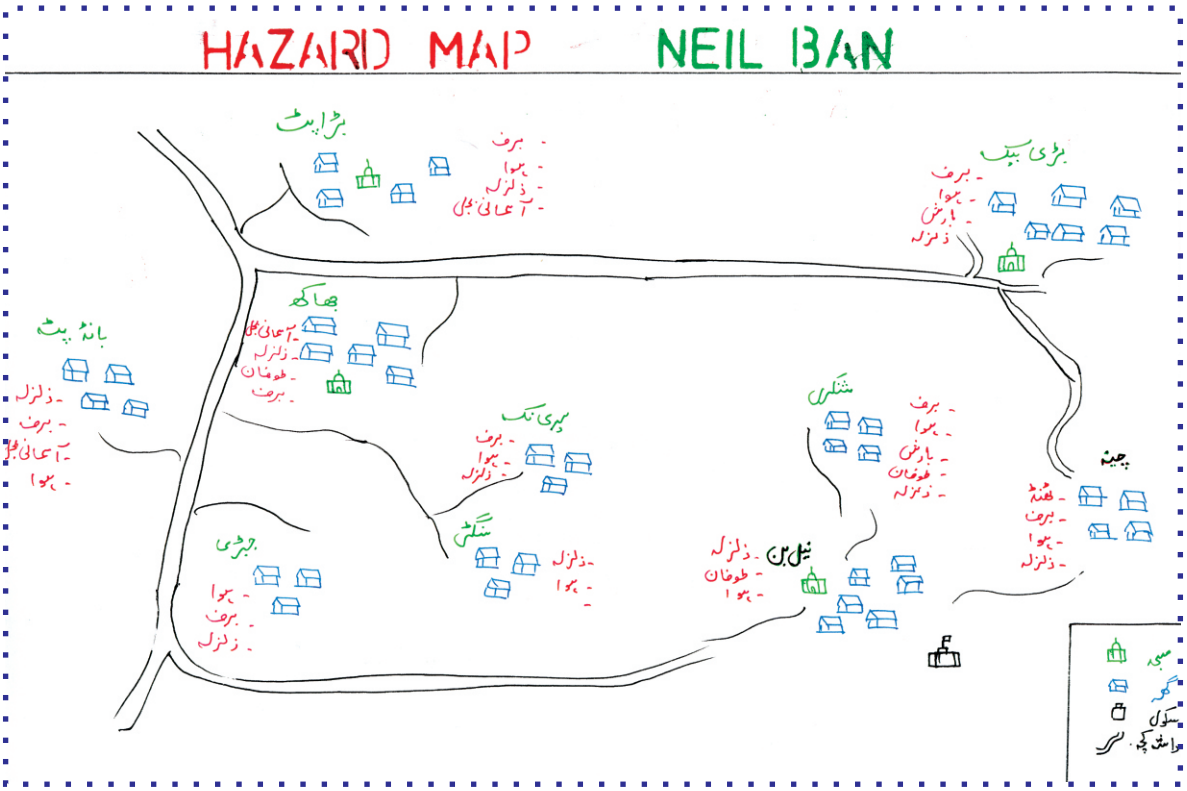
Remember to use different plastic sheet and color to indicate other hazards.



Other examples of Hazard Map:







Guidelines for Elaborating a Community Risk Map

René Martorell, Rocio Sáenz

These guidelines are meant as a tool to help local communities and organizations to produce a risk map that can serve as didactic material to prepare and train community members on how to deal with the hazards and risks to which they are exposed.

Its simplified format makes it easy to use by local organizations as well as by the facilitators and local staff of the institutions entrusted with disaster reduction in a variety of sectors.

What is a Risk Map?

A Risk Map is a drawing or even a scale model that identifies the location of high-risk areas in the community as well as the chief settlements and works of infrastructure that might be affected in the event of a disaster.

The Risk Map employs symbols to identify certain places that serve as points of reference, such as the Red Cross, the Health Center, the Police, the Firefighting Brigade, churches, the Municipal Building, the school, the football field, rivers that flow through the area, and so on. Certain colors are used to indicate the level of risk for instance, red for high-risk areas, yellow for medium-risk areas, and green for relatively risk-free areas.

What is the Value of Risk Maps?

- They make it possible for all of us to participate. It is the result of how we all perceive our situation.
- By producing a Risk Map, we get to know and identify the risks we face, helping us to find solutions or take precautions.
- A Risk Map also helps us to locate the major hazards that, combined with human activity, generate risks.
- The Map provides the authorities and local organizations with shared, joint criteria for decision-making on the actions and resources needed to mitigate the impact of disasters.
- The Map also helps us to record historical events that have had a negative impact on the community and the population, enabling us to prevent similar occurrences in the future.

Who Can Participate?

All of us can participate in the production of a Risk Map. No particular group should monopolize the effort. Therefore, it is important to have enough time to do the job properly, as well as the right place or places in which the largest possible number of people can collaborate in a methodical manner.

Key stakeholders that must take part in the process include the local authorities, members of community organizations, community leaders, NGOs that provide services in the area, professional and technical staff from public and private institutions, local health personnel, teachers and students, and representatives of the various groups in the community, whether formally organized or not.

How Do We Elaborate a Risk Map for the Community?

To elaborate a community risk map, you need to take certain steps. Each step involves very specific activities.

But bear this in mind: The steps to be taken depend on the community and how organized it is, as well as on the nature of the risks and hazards present in the area. It is the community itself that must decide which procedures best fit its own conditions, and which steps it should take to produce the map.

These, then, are the steps or stages needed:

1) Organizing the Work

The first thing is to organize the work so as to find the needed information and produce the community risk map.

- Convene a work meeting. Invite the community, institutional representatives, local authorities and the population in general to participate in the meeting.
- Explain the objectives of the meeting. The essential thing is to accentuate the importance of community preparedness and planning to confront emergencies.
- Analyze previous experiences. The purpose is to allow participants to recall and voice their memories of previous emergencies. This helps to motive participants by making them aware of the importance of working together to prevent emergencies and respond to them.

2) Discussing Community Risks and Hazards

It is vital to spend some time explaining what risk is, what is a hazard, what is vulnerability, and so on, so

that all participants understand and share the basic concepts. This will be useful later on, when a tour of the community is undertaken to identify risks and hazards.

- Present the concepts of risk, hazard, and vulnerability. This presentation must be carried out by people who are technically qualified to do so.
- Identify, in general, what the major hazards are. The idea is for participants to answer questions such as, "What are the major hazards affecting the community?" "Of these, which is the most significant hazard we should bear in mind?"

3) Preparing Guidelines for Observation and Data Collection

It is important to produce guidelines to let stakeholders know what to look for during their tour. Certain questions may be asked, such as the following:

- If a flood hit this community as a result of an intense tropical storm or hurricane, which community areas would be most at risk of suffering an adverse impact? Which kind of infrastructure? Which settlements and groups? Why?
- If a significant earthquake hit the community, which community areas would be most at risk of suffering an adverse impact? Which kind of infrastructure? Which settlements and groups? Why?

For example, let us consider the possibility of a tropical storm that could threaten the community with severe floods. The following questions might be asked:

a. Which areas may be flooded if there was a strong storm? Why?

b. Which areas have been flooded in the past in similar situations?

c. Are there rivers that might overrun their banks? Where would this be most likely to happen? Are there houses in those places? How many are there? What kind of houses are there? Are there domestic animals there?

d. What instabilities in the terrain might lead to an avalanche or landslide? Are there homes or crops that might be directly affected by such a phenomenon?

e. What homes or neighborhoods in the community might be affected in the event of a flood? Why? Is the risk obvious, or not so apparent? Why?

f. What other structures, such as bridges, walls, roads, or buildings might be affected?

g. Is there a risk of the community becoming isolated if connecting roads or bridges are damaged?

h. What places would suffer the greatest risk of adverse effects as a result of a flood?

i. Which places might be polluted as a result of a flood, such as water sources, landfills, etc.?

4) Touring the Community

Now, at last, everyone should be ready for a tour of the community to gather information on the local risks and hazards, and on which places might be used as shelters or security zones in the event of a disaster, to care for the injured and the most vulnerable.

These are the steps to be taken:

- Establish groups and distribute the areas to be surveyed. Groups should be made up of five

individuals or so.

- Define how long the tour will take. Arrange for a specific time when all the groups can come together and discuss their findings.
- Make sure each group has a copy of the observation guidelines. This will ensure that there is agreement about which hazards to pay attention to.
- Engage in intra-group discussions. Each group may agree to meet by itself after the tour to discuss the findings and consolidate them before meeting with the others.

5) Discussing and Analyzing the Preliminary Results

When the groups have completed their tour of the community and collected all the information, a Plenary Session must be held at a previously agreed-upon time and place. There, the results must be discussed and analyzed, and priorities must be assigned.

The steps to be taken may include the following:

- Present the information collected by each group. Each group should explain what hazards they found and what the risks are.
- Discuss the findings. Have all participants discuss the findings, perhaps enriching them with their own memories or observations of the places inspected by the other groups, until there is at least preliminary agreement on what the major risks are.

6) Producing the Risk Map

There are two possible ways of producing the Risk Map.

- Someone who is skilled at drawing prepares beforehand a general map of the community, showing the various settlements and landmarks. On this, the various hazards would be drawn and, once there is agreement that all the significant threats have been included, a final draft would be produced.
- Each group can draw the portion of the community that they surveyed, identifying the most significant risks. Then the Plenary assembles, puts the maps together, discusses what is contained in each one, and a final, consolidated general map is produced including the observations of all the groups.

As already noted, these procedures are not ironclad. They can and should be adapted to the way every community has traditionally organized itself. What is important is that participation be high and include as many of the different groups of stakeholders as possible, since the purpose of the exercise is not only to produce a risk mapessential though this may be but also to raise awareness of the importance of disaster reduction through prevention, mitigation and preparedness.

Historical Profile of Disasters

What: gathering information about what happened in the past

Why:

(1) to get insight into past hazards, changes in their nature, intensity and behavior,

(2) to understand present situation into community (causal link between hazards and vulnerabilities)

(3) to make people aware of changes

When: at initial phases

How:

(1) Plan a group discussion and ensure that key-informants (old people, leaders, teachers) are present. Invite as much people as possible, especially the young ones, for them to hear the history of their community

(2) ask people if they can recall major events in the community, such as:

- major hazards and their effects
- changes in land use (crops, forest cover, etc.)
- changes in land tenure
- changes in food security and nutrition
- changes in administration and organization
- major political events

(3) the facilitator can write the stories down on a blackboard or craft paper in chronological order

Life histories: another method is to ask individual informants to give a detailed account of their life or regarding a specific issue from a historical perspective.

History tracing: ask individuals or group to begin with current experiences and to go back in time. Purpose is to find reasons / causes which contributed to the occurrence of a certain experience.

Year	Event
1975 – 1978	Indonesian occupation. Many houses were burned, people fled to the forest.
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 remain 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, 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 Horacio re-elected as Chief of village.

Source: Daudere Village, Lautem District, Timor Leste (Concern Worldwide DRR Project, 2005).

Seasonal Calendar

What:

Making a calendar showing different events, experiences, activities, conditions throughout the annual cycle.

Why:

(1) Identify periods of stress, hazards, diseases, hunger, debt, vulnerability, etc.

(2) Identify what people do in these periods, how they diversify sources of livelihood, when do they have savings, when do they have time for community activities, what are their coping strategies.

(3) Identify gender specific division of work, in times of disasters and in normal times.

Who:

Team and community members; have separate sessions for men and women.

How:

(1) Use 'blackboard' or craft paper. Mark off the months of the year on the horizontal axis. Ask people to list sources of livelihood, events, conditions, etc., and arrange these along the vertical axis.

(2) Ask people to enumerate all the work they do (e.g. planting, weeding, etc.) for each source of livelihood / income by marking months and duration, adding gender and age.

(3) Facilitate analysis by linking the different aspects of the calendar: how do disasters affect sources of livelihood? When is workload heaviest? Ask for seasonal food intake; period of food shortage, out-migration, etc.

(4) You can continue the discussion on coping strategies, change in gender roles and responsibilities during times of disasters, or other issues you think are relevant.

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	Religious activities													Church activity
11	Selling of crops													Sell vegetable
13	Construction of houses													Building activity
14	Wedding & social activities													Dowry system

Actions and Reflections:

1 What are the hazards in your community? Describe each.

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2. How do we assess hazards?

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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 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.

Handouts

Institutional and Social Network Analysis

What:

Making a diagram that shows key-organizations, groups and individuals in a community, nature of relationship and level of importance.

Why:

(1) Identify organizations (local & outside), their role/importance, and perceptions that people have about them, (2) identify individuals, groups, organizations that play a role in disaster response and can support community.

Who:

Team and community members.

How:

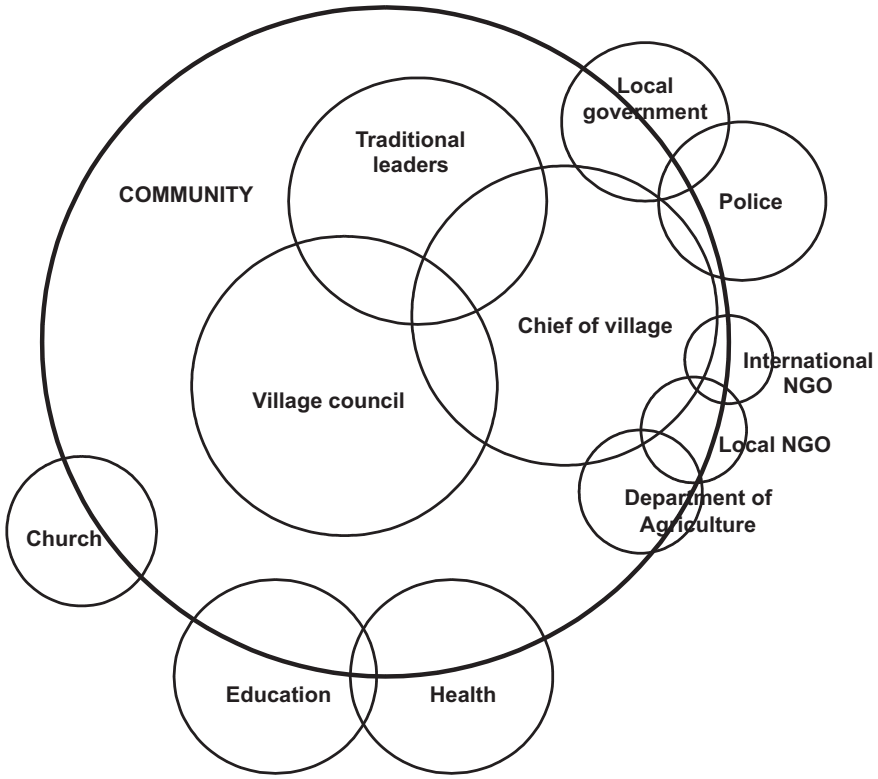
(1) Become familiar in advance with the names of the organizations.

(2) Ask people to determine criteria for the importance of an organization and to rank them according to these criteria.

(3) Ask people to what extent organizations are linked to each other; note kind of relationship.

(4) Draw circles to represent each organization or group; size of circle indicates importance.

(5) Continue focus group discussion on history of organizations; activities undertaken in community; how well do they function; how is coordination; which organizations, groups, individuals are important in times of disasters, community level decision making mechanisms, etc.



Source: Daudere Village, Lautem District, Timor Leste

Problem Tree

What:

Flow diagram showing relations between different aspects.

Why:

Identify local major problems / vulnerabilities as well as root causes and effects.

When:

During later part of situational analysis or community risk assessment.

Who:

Team facilitates community members' meeting (optional to have separate meeting for men and women).

How:

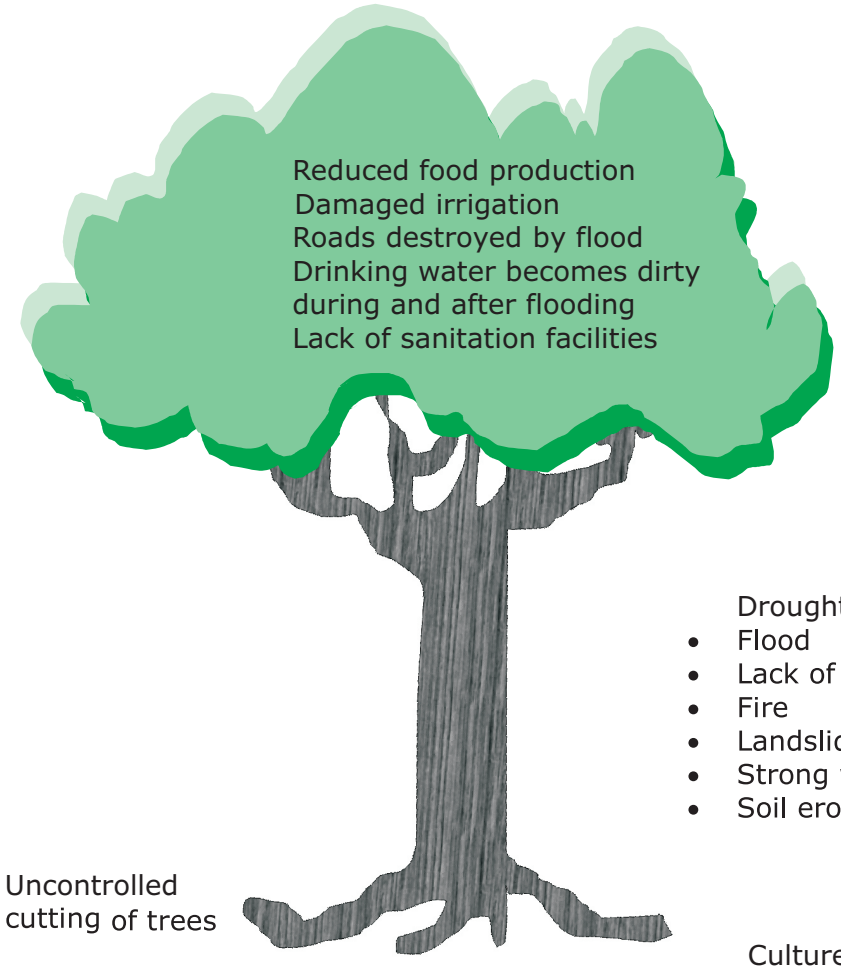
(1) From other tools and interviews, various concerns and problems are identified.

(2) Give all people small pieces of paper and ask them to write one major problem on each card, and to put these on the wall (people can draw problems in case they do not know how to write and read).

(3) Ask two or three volunteers to group the problems according to similarity or interrelationship.

(4) Now the making of the 'problem tree' can start: the trunk represents the problems; the roots are the causes; the leaves are the effects:

- Ask why issues on the cards are problems. Ask 'but why?' after each explanation to arrive at the root causes.
- To arrive at the effects, ask for the consequences of each problem.



Ranking of Problems and Solutions

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

Priority	Problem	Solution
III	Drought	1. Silo Making 2. Irrigation rehabilitation 3. Reforestation 4. Community awareness 5. Group formation 6. Animal raising
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

Actions and Reflections

1. What is vulnerability assessment ?

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2. Enumerate and describe some participatory tools you can use for vulnerability assessment.

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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.

Handouts

Categories of Capacity Assessment

Physical / Material Capacity:

1. What are the capacities of the village in terms 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 is people's perceptions of risk? Ex.: It's God's will and they cannot do anything about it, or they can do something to manage the risk.

Example of Community Capacity Assessment

Aspect	Capacities
Materia/Physical	People own equipments like tractor,. thresher, rice mill, corn mill, sewing machines. Water system (6) installed by NGO, 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 any NGO. Farmers' group organized.
Motivational/ Attitudinal	Community work together and help each other (e.g., neighbors help to fix house destroyed by strong wind).

Coping with Drought in the Dry Zone of Sri Lanka

In Sri Lanka, communities living in drought-prone areas have worked out survival mechanisms using their own experience of previous droughts. The methods are both agricultural and non-agricultural. They help in minimizing crop damage and strengthening the food and water security of the community.

Coping practices include:

- *noting the water level in the irrigation tanks at the end of the rainy season before deciding on the type of the crop and the extent of the area to be cultivated*
- *shared cultivation*
- *growing subsidiary food crops like cassava, sorghum and pulses which require less water than rice*
- *taking up* chena *(shifting) cultivation as insurance in case the rice crop fails due to drought)*
- *looking for casual agricultural labor opportunities outside the village*
- *changing diet and reducing the food intake*
- *gathering food from forest reserves*

Actions & Reflections

1. What is capacity assessment ?

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2. Enumerate and describe some participatory tools you can use for capacity and vulnerability assessment.

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Session-5

Disaster 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.

Key Notes:

- Community risk assessment involves four components: hazard assessment, vulnerability assessment, capacity assessment and people's perception of risk.
- Participatory risk assessment tools help to ensure that the data gathered and information analyzed is from the perspective of the community.

Handouts

Characteristics of a Participatory Risk Assessment Facilitator

Although participatory risk assessment is a basket of tools in data gathering and analysis, it is more than just techniques and methods. There are three pillars of PRA:

- *Attitudes and Behavior* : Learn to unlearn; They can do it; Handing over the Stick; Embrace error; Sit down, listen; learn, respect; Facilitate;
- *Sharing Knowledge and Experience*: Sharing knowledge and analysis; supporting people and their organization; Sharing learning methods, experience, training, ideas with local people and among facilitators;
- *Methods and Techniques:* Map; Model; Compare; Score; Diagram; Analysis; Plan; Act; Evaluate; etc.

Attitudes and behaviour fostering participation are required of disaster risk management personnel, development workers, and outsider facilitators working with communities in disaster risk management. Community leaders should also be conscious of leadership styles which foster participation.

- Participation especially of the most vulnerable groups;
- Respect for community members;
- Interest in what they know, say, show, and do;
- Patience, not rushing, and not interrupting;
- Listening, not lecturing;
- Humility;

- Methods which empower community members to express, share, enhance, and analyze their knowledge.

Some characteristics of a good participatory community risk assessment facilitator:

- Build rapport with men and women, rich and poor, young and old, and people with different ethnic or social group background;
- Being friendly, interested, culturally sensitive, relaxed and open, avoiding making people feel uncomfortable;
- Listening and probing, and leaving time in conversation for additional comments;
- Selecting PRA tools that suit local conditions and recognizing that not all PRA tools are suited to all situations and social groups;
- Engaging in conversations that have a two-way exchange of information;
- Being patient but proceeding at a moderate pace;
- Seeking views of the weaker, less influential people or groups;
- Sharing information;
- Giving people enough time to communicate and consider ideas;
- Being self-aware and self-critical, using own judgment, avoiding personal biases;
- Learning from people, not lecturing;
- Checking and rechecking the validity of information using different sources;
- Frequently reflecting on what information has been gained and where the gaps are identifying and testing assumptions;
- Admitting error and learning from mistakes;
- Trying to ensure that villagers' expectations are not raised too early, and avoiding making promises that cannot be fulfilled;
- Asking questions that invite explanations or viewpoints rather than yes or no;
- Scheduling PRA activities so that they fit in as much as possible with seasonal and daily routines of villagers.

Actions and Reflections:

1. What were your activities during the field work?

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2. What were the difficulties encountered during the field work?

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3. What are your insights into community risk assessment?

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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 Analysis (DNCA)
Session 4: Managing Emergency Operation Center (EOC)
Session 5: Evacuation and Early Warning System

Session-1

Overview of Disaster Preparedness and Emergency Response

Session Objective:

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 .
- Emergency response activities are measures that ensure the ability of affected communities to respond and cope with the immediate effects of a disaster.

Handouts

RELIEF DELIVERY

A. What is Relief Delivery

- Provision of temporary shelter, medical treatment, food and clothing; without these assistance, conditions will deteriorate (Kent).
- Meeting immediate needs for food, clothing, shelter and medical care of disaster victims.
- Assistance given to save lives and alleviate suffering in the days and weeks following a disaster.
- For creeping or slow-onset disasters, the relief period may be months or even years after (Asian Disaster Preparedness Center).
- Emergency response whose aim is to ensure the immediate survival of the threatened population (CDRC).

B. Components of Relief

1. Emergency Health Services
2. First Aid:
   - Managing mass casualties
   - Managing severe nutritional deficiencies
   - Sanitation
   - Water supply
   - Personal hygiene
   - Control of communicable diseases
   - Psychological first-aid

- Diagnosis
- Counseling
- Therapy (play, music, movement, etc.)

3. Provision of food and non-food items
4. Temporary shelter (plastic sheet)
5. Emergency repair of critical facilities

C. Requirements:

- Logistics
- Damages, Needs, Capacities Assessment (DNCA)
- Monitoring and reporting
- Coordination and communication between and among victims and service agencies
- Resource mobilization
- Emergency Operations Center/Committee Formation

D. Relief Delivery Operations Process

1. DNCA
2. Planning
3. Resource generation
4. Purchasing
5. Warehousing
6. Repacking
7. Distribution
8. Assessment
9. Reporting

E. Relief as a Tool for Development

How can relief be a tool for development? If the approaches/methods employed:

- Encourage people's participation
- Facilitate formation of organizations
- Do not create false perceptions and attitudes among people (e.g., dependency)
- Follow a consultative process with education component
- Are based on realistic, felt, observed and expressed needs (DNCA)
- Rely on the victims' strong coping mechanisms
- Are sensitive to gender and cultural considerations
- Develop public awareness of the disaster situation, its causes and consequences and it increases knowledge and skills in disaster response
- Mobilize both the less vulnerable sectors for disaster response

Actions and Reflections

1. Can you give at least 3 examples of community disaster preparedness activities?

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2. Can you give at least 3 examples of community emergency response activities?

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Session-2

Community Awareness

Session Objective:

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

Key Notes:

- Community awareness is a process by which vulnerable populations understand the nature of hazards and their potential for causing disasters.
- Channels and 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 programme, observance of disaster consciousness month, photo exhibit, disaster management orientation, disaster preparedness training.

Handouts

COMMUNITY AWARENESS

A. What is Community Awareness?

- A systematic distribution of information about potential hazards and threats and what people can do about them, in order to encourage people to act to protect their lives and property *(CDRC)*.
- The process through which people living in hazard-prone areas come to realize and understand that they live in areas of risks, know the specific dangers that they are exposed to and the warnings that are issued, and know the appropriate actions to be taken to protect their lives and minimize property damage *(ADPC)*.

B. Objectives of Community Awareness

1. To increase the public knowledge about hazards, their nature and the consequences of their impact
2. To increase knowledge about practical preparedness measures
3. To inform the public about the warning system that will be employed and what they should do when they receive it
4. To increase knowledge on how to respond to an emergency situation
5. To mobilize support for disaster risk management plans or response activities

C. Elements of Community Awareness

- Message

- Means (posters, radio, calendars)
- Audience
- Intended result

D. Features of an Effective Community Awareness Programme

- Ongoing Process - Public Awareness is an on-going process, not simply a set of products such as posters, brochures, etc.
- Participatory - Target population are active participants in program 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 public awareness programme
- Target population specific - Must be based on needs of specific groups for information essential for them
- Integral part of local warning and response system

E. Some Channels and Forms of 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 programme, television features, tapes, CD
- Earthquake safety day, disaster consciousness day/week/month
- Photo exhibit, forum, public speeches
- Press releases, letters to the editor, articles in printed media
- Disaster management orientation, disaster preparedness training

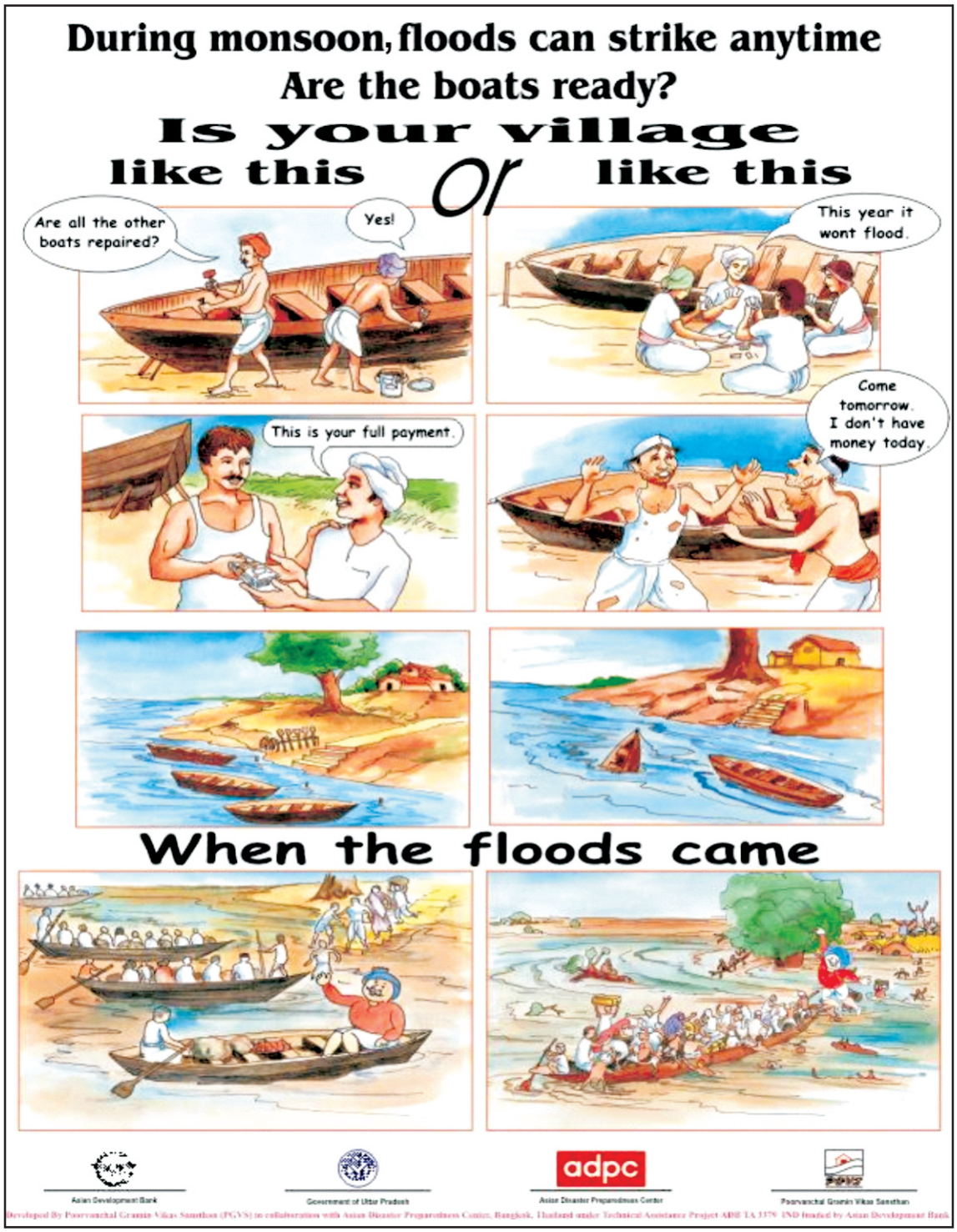
F. Strategy in Raising Awareness of Vulnerable Communities *(National Disaster Risk Management Framework, 2006).*

- Identify key social groups that should be targeted for awareness raising about disaster risk management
- Identify information needs of the selected target groups on disaster, risk and risk reduction
- Identify the appropriate channels of communication for awareness raising of local groups
- Produce printed, and audio-visual materials or develop activities for face to face communication
- Implement awareness raising campaigns with the selected stakeholders

SAMPLES OF PUBLIC AWARENESS MATERIALS

COMICS

POSTER


During monsoon, floods can strike anytime
Are the boats ready?
Is your village
like this Or like this
Are all the other boats repaired?
Yes!
This year it wont flood.
This is your full payment.
Come tomorrow. I don't have money today.
When the floods came
adpc
Asian Development Bank
Government of Uttar Pradesh
Asian Disaster Preparedness Center
Poorvanchal Gramin Vikas Sansthan
Developed By Poorvanchal Gramin Vikas Sansthan (PGVS) in collaboration with Asian Disaster Preparedness Center, Bangkok, Thailand under Technical Assistance Project ADB TA 3379 IND funded by Asian Development Bank

Actions and Reflections

1. Can you give 3 objectives of community awareness?

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2. Can you give 3 examples of channels and forms for community awareness?

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Session-3

Damages, Needs and Capacities Analysis (DNCA)

Session Objective:

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

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.

- The purpose of DNCA is:

  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)

Handouts

DNCA Contains the following information:

1. Disaster Event
   - What happened?
   - When?
   - Where?
   - How?
   - What are other immediate threats? Who will be affected?

2. Damages and Losses
   - Who suffered losses and damages to life and property?
   - What and where are the damages?
   - What 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 the 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?

Sample of DNCA Form

I. Name of Organization : _____

II. Description of the Disaster Event:

Disaster : _____

Date of Occurrence: _____

Duration: _____

III. Affected Area : _____
(Address: Village / City / District / Region / Province)

Total Land Area: _____

Total Population : _____

Total No. of Families: _____

Total No. of Families Affected: _____

No. of Children Below 15 Years Old: _____

No. of Women Affected: _____

No. of Missing Persons: _____

Usual Family Size or No of Children Per Family: _____

IV. Damage to Structures:

No. of Families Who Own Their Houses : _____

No of Families Who Lease : _____

Structures Affected	No. Partially Destroyed	No. of Completely Destroyed

V. Damage to Livelihood

Source of livelihood in the Area

A. Men

Type of Economic Activity	Regular Income (Monthly / Daily)	No. Engaged in Livelihood

B. Women

Type of Economic Activity	Regular Income (Monthly / Daily)	No. Engaged in Livelihood

VI. Present Location of the Survivors

Did the affected families evacuate or do they remain in their respective homes?

_____

(If the answer to the above is yes, answer section A or B below.)

A. Evacuation Centers (Specify name, location, distance from the place of origin)

_____

1. When did the families move to the evacuation center? _____
2. How large is the evacuation center (square meter)? _____
3. How many are staying in the center? _____
4. Is there enough ventilation? _____
5. Are there beds to sleep on? _____

if none, where do the people sleep? _____

6. How are waste and excreta disposed of? _____
7. Are there enough latrines? _____
8. Are there sources of potable drinking water? _____

B. In the absence of an evacuation center, please specify present location of the survivors and give brief description of the physical condition of the place

_____

VII. Organizations Where the Target Beneficiaries are Members

Name of Organization	Sector	Total No. of Members	No. of Members from Survivors

Can these organizations help in the relief operation? _____

In what way can they help? _____

VIII. Assistance Received from Other Organizations

Name of Organization	Assistance Extended	Date	Quantity / Estimated Amount

IX. Identification of Needs of Target Beneficiaries

A. Medical

1.

Present Type of Illness	No. of Cases Per Age Group			
	0 – 5	6 – 15	16 – 65	Over 65

2.

Causes of Death	No. of Cases Per Age Group			
	0 – 5	6 – 15	16 – 65	Over 65

3.

Nature of Injury (Indicate severity)	No. of Cases Per Age Group			
	0 – 5	6 – 15	16 – 65	Over 65

4. Are these people suffering from psychological disturbance?
If yes, please state observed abnormal behaviors and how many are exhibiting such behavior.

_____

5. Are there medical personnel who can help in the treatment of ill persons?
If yes, how many and what are their field of expertise?
Where is the nearest hospital or medical facility (private & Public)?

_____

6. How many need professional medical treatment? _____

7. How many need to be hospitalized? _____

B. Water

1. Source of water for drinking and household use (WAPDA, Others)

   _____

2. No. of water pumps (potable): _____

   Not Potable : _____

C. Food

1. Who and how many should receive food relief? Why? _____
2. Are there food stocks available locally? How long will these last? _____
3. When will food rations be used and until when? _____

D. Clothing

1. Are there survivors who are in need of clothing assistance? If yes,

   How many ? _____

2. Clothes that need to be supplied

For	Quantity
Children	
Women	
Men	

E. Other Items Needed

1. Kitchen Utensils : what, how many and why? _____
2. Sleeping materials : What, how many and why? _____
3. No of families in need of materials for temporary shelter

   (plastic Sheets) _____

XI. Additional Information on the Area

Describe the physical features of the area and the disaster threats / hazards. (e.g., near the riverbank, low-lying, fire / toxic hazard from factory, narrow / congested streets, etc.) Place this at the back of the form.

DATE OF INTERVIEW: _____

RESPONDENT/S: _____

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INTERVIEWER : _____

Actions and Reflections

1. What is the purpose of DNCA?

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3. What information do we include in the DNCA?

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Session-4

Managing Emergency Operation Center (EOC)

Session Objective:

At the end of the session, you 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 Notes

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

- The tasks of the EOC include:

  Collection and analysis of data for public information and warning
  Emergencies Assessment or Damages, 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

Handouts

Management 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. A Coordinator and Assistant Coordinator will facilitate the implementation of its tasks and functions:

- **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

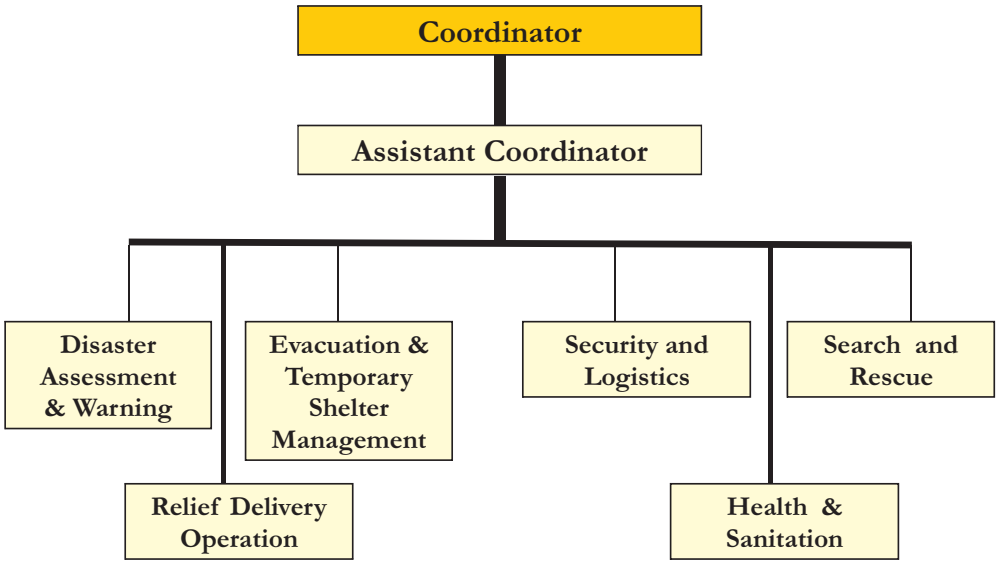
needed to be evacuated or placed in temporary shelters are identified and assisted in actual evacuation; takes charge of managing evacuation center

- 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*?*

- Community members trained in emergency response
- A Coordinator who heads the operation and an Assistant Coordinator
- Committees or group of people assigned to manage the operations
- Communication facilities. Arrangements for receiving, collating and assessing information and for facilitating decision-making
- 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.)
- 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.

EOC STRUCTURE



Actions and Reflections

1. What are the functions of an emergency operations center (EOC)?

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2. What are the committees within the EOC? What are the major responsibilities of each committee?

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Session-5

Evacuation and Early Warning System

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.

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 flood water and other hazards or threats have not yet reached the houses of peoples 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 and adaptive response.

Handouts

EARLY WARNING

A. What is Early Warning?

Early warning is the relay of messages about the existence of danger and what they need to do to prevent, avoid or minimize the danger

B. Why do we give warning?

1. To inform about:
   - hazards
   - elements at risk (who and what might be affected)
   - risks
   - the environment
   - potential needs
2. To 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:
  Preventive evacuation due to severe weather forecast/warning

- means of mitigation

  Example:
  sandbagging to reinforce the dikes

- means of response to threat

  Example:
  warning that floodwater is about to breach dike and there is a need to reinforce dike (sandbag)

3. To instruct:
   - what
   - when
   - how
   - who
   - where

C. Different forms of giving warning and/or receiving warning

- Village/community meetings
- Notices/posters/billboards
- Verbal or pictorial messages
- Cartoon series / Mascots
- Radio
- Television
- Newspaper
- Films
- Announcements
- Sirens
- Other indigenous forms and channels

D. Things to consider when giving warning

1. Inform the people of the different phases of warning and their meaning
2. Inform or update the evacuees/community of the forecast and the warning 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

   The task of this committee will be 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
     1. List **organizations** involved and describe their roles for each hazard
     2. 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 organization's overall involvement

6. The warning should be:
   - Area specific and target sector/people specific
   - Hazard specific
   - Based on the Hazard, Capacity and Vulnerability Assessment
   - Give advise on what to do
   - Inform community of the possible effects / risks that may cause them if they don't follow or do what is advised
7. Community should know the meanings of actions to be taken. Or recommended action should be specific like: pack-up things, proceed to pick-up point or proceed to evacuation site
8. Warning is given in simple form and in the local dialect

EVACUATION

A. What is an Evacuation?

Evacuation is an organized movement of people from an area of risk to a safer location.

B. When is the Time to Evacuate?

When . . .

- Inundation of living areas by flood, storm surge or tsunami
- Volcanic eruption
- Serious damage to construction of homes (typhoon, earthquake, etc)
- Fire
- Situation of armed conflicts/civil war

C. Phases of Evacuation

- Warning
- Order to Move
- Actual Evacuation
- Evacuation Center Management
- Return to former or new place

D. Plan for Actual Evacuation

- Identify a safe place for evacuation
- Identify shortest and safest route
- Identify and prepare alternative routes
- Identify pick up points or assembly points for people
- Place "road signs" along evacuation routes
- Prepare master list of evacuees and check at each pick-up point if the group is complete
- Prepare evacuation schedules and groupings in case transportation will be used
- Set provisions and plan evacuation of animals and other properties of evacuees
- Organize an Evacuation Committee among community members
- Identify and prepare requirements during evacuation (transport, gasoline, food, water, medicine, road signs, communication systems, etc.)

E. Task of Evacuation Committee

Pre-evacuation:

- Prepare evacuation plan including warning system
- Training and education of community members
- Identify and prepare logistical needs for evacuation
- Networking, coordination and resource generation for the purpose of evacuation

During evacuation:

- Give order to move
- Manage logistical needs for the evacuation
- Ensure orderly evacuation

- Act as marshals/guides during evacuation
- Search and rescue

In Evacuation Center:

- Coordinate with health, food, sanitation, security, information committee
- Manage relief operations while in evacuation center
- Networking, public information, advocacy, resource generation

Actions and Reflections:

1. Why do we need to warn people?

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2. Can you list examples of a warning system?

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3. Can you describe an evacuation process?

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

Session-1

Overview of Risk Reduction Measures

Session Objective:

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* are measures taken in advance of a disaster aimed at reducing its impact on society and the environment

Handouts

Menu of Disaster Risk Reduction Options
for Disaster Reduction Plans
(mainly for Earthquake, Floods and Landslides)

No.	Risk Reduction Measure	Description / Purpose
Household Water Supply, Sanitation and Hygiene		
01.	✓ Raised community water points (boreholes / ring wells) ✓ Community water points (boreholes / ring wells) in key areas ✓ Improved household rainwater catchment (for use in flood time)	Improved access to safe drinking water
02.	✓ Household water filters (e.g. ceramic bowl filters) ✓ Fuel wood reafforestation (wood for boiling water) ✓ Kettles (for boiling drinking water)	Treatment of water - to provide safe drinking water
03.	✓ Drinking water storage containers (plastic jerry cans / barrels)	Storage of drinking water - to maintain safe drinking water

No.	Risk Reduction Measure	Description / Purpose
04.	✓ Stockpile of Chloramine tablets ✓ Stockpile of Alum (for sedimentation)	Emergency drinking water treatment
05.	✓ Community or household water points (boreholes / ring wells) ✓ Community or household water ponds/canals ✓ Improved household rainwater catchment (*for dry season use*)	Improved access to safe drinking water
06.	✓ Raised flood-proof household latrines ✓ Community latrines in evacuation areas ✓ Household latrines	Improved sanitation
07.	✓ Hygiene awareness, promotion & education	Good water use, hygiene, sanitation and household water treatment for flood & drought conditions
08.	✓ Malaria and/or Dengue Fever awareness raising & education	Causes, symptoms and treatment; prevention & preparedness measures
09.	✓ Stockpile of oral re-hydration salts (ORS - *oralyte*) - community managed	Free / subsidized / no interest credit for prioritized families *plus health/hygiene education & diarrhoea treatment training*
09.	✓ Stockpile of oral re-hydration salts (ORS - *oralyte*) - community managed	Free / subsidized / no interest credit for prioritized families *plus health/hygiene education & diarrhoea treatment training*
Health and Nutrition		
10.	✓ Basic CBFA training for family caregivers; adolescent children	Flood-related, Storm-related, Disease-related
11.	✓ Vaccination & de-worming awareness (for all young children)	*plus high dose vitamin A, iron and iodine supplements/plus de-worming*
12.	✓ Health awareness, promotion & education	water-related (& other priority) diseases – causes, prevention, symptoms and treatment recommendations
13.	✓ Nutrition awareness, promotion & education	*Links* to health (child survival & development) & food security – promotion of home gardening
14.	✓ Malaria and/or Dengue Fever awareness raising & education	Causes, symptoms and treatment; prevention & preparedness measures

No.	Risk Reduction Measure	Description / Purpose
15.	✓ Avian Flu and/or SARS awareness raising & education	Causes, symptoms and treatment; prevention & preparedness measures
16.	✓ Stockpile of basic medicines supplies and oral re-hydration salts (ORS) - community managed	Free / subsidized / no interest credit for prioritized families *plus health/hygiene education & diarrhoea treatment training*
17	✓ Motorbikes or bicycles for Village Health Workers, Red Crescent Volunteers, Traditional Birth Attendants	Ensure VHW, TBA & RCVs have mobility to medically assist when needed
18	✓ Dry stockpile of fuel wood for emergency use	Pregnant women & TBAs
Agricultural production (crops and livestock – including fish raising)		
19	✓ Water-gates & culverts; Drainage channels; ✓ Embankment dams & canals	Water control structures aiding removal of water – or protection of settlements (and/or storage of flood water)
20	✓ Embankment dams (storage); ✓ Community & household irrigation ponds (storage); ✓ Irrigation boreholes – treadle pump & motorized pumps (production); ✓ Canals or Water pumps (engine) for surface water (distribution)	Irrigation infrastructure construction or rehabilitation
21	✓ Awareness raising on potential for changing cropping patterns and wheat, maize, rice (& other crop) production practices	e.g. increased rice varieties and soil moisture management techniques for wheat, maize, rice, non -rice and quick growth crops
22	✓ Agricultural training: Agricultural tree crops (fruit, fodder, etc …)	Flood or drought tolerant. *Plus seeds/ seedlings & other inputs*
23	✓ Agricultural training: Cultivation of vegetables in raised gardens; and/or aquatic plant crops	Flood tolerant . *Plus seeds/ seedlings & other inputs*
24	✓ Agricultural training: Crop diversification (especially home garden fruits, vegetables, root crops, herbs etc)	Drought tolerant . *Plus seeds/ seedlings & other inputs*
25	✓ Agricultural training: Inter-cropping & multi-cropping techniques	*Plus seeds/ seedlings & other inputs*
26	✓ Agricultural training: System of Rice Intensification (SRI) techniques	*plus inputs*
27	✓ Agricultural training: Use of green manure & composting	*Plus inputs if required (materials, tools,..)*

No.	Risk Reduction Measure	Description / Purpose
28	✓ Agricultural training: Integrated Pest Management (IPM)	Also reduces fertilizer & pesticide impact on fisheries & aquatic resources. *Plus inputs if required*
29	✓ Rice, Maize, seed banks	crop storage bank & community management system
30	✓ Aquaculture / Fish-raising training ✓ Fish ponds; floating cages	e.g. raise fish fingerlings, in floating cages, etc. *Plus inputs (equipment, fingerlings, ..)*
31	✓ Basic animal husbandry training for flood/drought/disease conditions	buffalo, cows, hors es, chicken, ducks, etc.. *Plus vaccinations*
32	✓ Advocate for Agriculture/Livestock Dept. to carry out pre-flood livestock vaccinations	Especially buffalo & cows
33	✓ Raised Livestock Safe Areas – household and/or community	Buffaloes, cows, horses
34	✓ Establish community management of existing community livestock safety and feed areas for flood seasons ✓ Manage livestock fodder resources	including negotiation with external villages for access rights to grazing land / fish for fodder exchange etc.
35	✓ Buffalo or Cow banks	Shared common resource - community managed
Common Property Resources (CPR) and Natural Resource Management (NRM)		
36	✓ Promote more active community management / protection of CPRs	i.e. Forests, grasslands, wetlands, lakes & rivers, fisheries
37	✓ Improve management of paddy field fisheries	Particularly conservation of refuge habitats
38	✓ Fuelwood reafforestation (*e.g. acacia, etc)*	Within and close to village
39	✓ Reafforestation of natural forests and grasslands ✓ Promote community forestry projects ✓ Protection from external exploitation – so these valuable resources are still available in disaster times	e.g. grasses, fruit, fodder, fuelwood & livelihood trees (traditional medicine, resin, essential oils)
40	✓ Reafforestation along river banks (acacia, grasses, …)	reduce river bank erosion and current flow & wave impact within villages and protection from flash floods
41	✓ Reafforestation within villages	reduce current flow / wave impact / provide shade and fuelwood

No.	Risk Reduction Measure	Description / Purpose
Household and Community Assets		
42	✓ Raised earth platforms for low flood-prone houses (FSAs) ✓ Concrete pillars ✓ Wooden cross-braces and wire stays ✓ Design changes (e.g. removable lower walls)	e.g. for weak or flood-prone housing
43	✓ Community volunteer labour force to rebuild and repair housing	for labour limited households (e.g. female-headed households with many young children; elderly widows/widowers or couples)
44	✓ Raised Family Safe Areas (FSAs)	For housing, vegetable gardening or livestock
45	✓ Establish Community Safe Areas on areas of high ground or flatland/plateaus and organize safe area management committee	e.g. organize temporary shelter assistance ; security (night guards)
46	✓ Floating water-proof barrel and water-proof plastic envelope	to keep valuable household assets dry – including papers (ID cards, family book, land titles, certificates, photos)
47	✓ Evacuation route designation and rehabilitation ✓ Bridge construction & rehabilitation	For evacuation purposes (dual purpose – as safe areas)
48	✓ Emergency reconstruction team for dykes, embankments, housing	For protective sand-bagging of nearly affected settlements & infrastructures
49	✓ Household evacuation transport *(eg. Bikes, carts…*	Household evacuation; increased mobility; & livelihood activities
50	✓ Fishing equipment (nets, lines and hooks)	Nets – for boat fishermen with damaged, lost or no nets Lines & hooks – those without access to boats and/or nets
Other livelihoods and income generation		
51	✓ Promotion of household informal sector micro-enterprises	e.g. sewing, weaving, mat making, mushroom growing
52	✓ Increase household income / employment opportunity within villages	e.g. Food for Work (FFW) or Cash for Work (CFW) projects
53	✓ Improve food processing, preservation and storage methods	e.g. drying vegetables, banana, coconut; dry, smoke or salt fish and meats.

No.	Risk Reduction Measure	Description / Purpose
Early Warning Systems (EWS), disaster information, evacuation plans and other hazard awareness raising		
54	✓ Enhance villager's understanding of floods, landslides, other hazards; awareness of disaster risks; and basic preparedness measures	Linked with disaster forecasting & early warning awareness raising
55	✓ Support access to existing government flood forecasting & early warning systems ✓ Support dissemination flood/storm forecasts and early warnings within (and between) villages	e.g. via VHF handset or telephone - Public display boards - Public address system / System extension to remoter parts - Strategy to promote dissemination / reach marginalized groups
56	✓ Storm warning forecasts (access to weather forecasts) and alarm	especially for those living near rivers, landslide prone areas, Alarm or horn for warning.
57	✓ Advocate and encourage *local* radio and TV stations to broadcast flood forecasts & early flood and storm warnings	perhaps sponsored by private enterprise
Cross-cutting issues, preservation of life and other coping Strategies		
58	✓ VHF Radio handsets	For quick two-way disaster communication with commune authorities
59	✓ Community evacuation	Evacuation (people, livestock & assets); medical emergencies
60	✓ Life-jackets / old car inner-tubes / whistles for emergency rescues	For families with young children, remote households ….
61	✓ Village Evacuation Plan - including arrangements for emergency medical evacuation	especially for highly vulnerable people (e.g. PLWA , HIV, TB, pregnant and recently delivered women, elderly).
62	✓ Search and Rescue Plan	trained search & rescue team, lifejackets, torches, old car inner-tubes for vulnerable households
63	✓ Regularly up-dated hazard specific list of vulnerable individuals & families	Specify criteria & methodology for selection & transparency

No.	Risk Reduction Measure	Description / Purpose
64	✓ Community self-help groups for child-minding child-care support	So parents can continue with livelihood activities away from the house
65	✓ Swimming lessons for children (especially girls)	
66	✓ Community stockpile of rice,maize,etc (for food) - bought in advance of storm/flood season (at lower prices)	distribution managed by community (free / subsidized / no interest credit) for identified vulnerable families
67	✓ Ensure an adequate supply of cooking fuel during the flood period	- especially among vulnerable households - fuel efficient stoves
68	✓ Organized grazing of livestock or fishing in groups (or pairs)	Especially at high risk times of day / night
69	✓ Disaster savings fund / disaster (interest free) credit	
70	✓ Advocate to rural banks, NGOs, IOs and other loan agencies for freezing of loans – or interest rate reductions	in event of natural (or small-scale household) disaster
71	✓ Advocate for authorities to offer free land to households losing house plot or agricultural land due to landsliding or riverbank erosion	
72	✓ Awareness raising about issues related to seasonal & disaster-related migration in search of work opportunities	HIV, STIs, trafficking, prostitution, gambling, traffic accidents, etc..
74	✓ Awareness raising about social issues within the village	HIV, STIs, trafficking, gambling, domestic violence, alcoholism

Extracted from: Commuity Based Disaster Preparedness Programme, Danish Red Cross-Cambodian Red Cross, Andrew Oliver Smith 2006

Actions and Reflections

1. Can you cite examples of projects that contributed in reducing the vulnerability of your community?

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2. Can you give examples of projects that contributed in increasing the vulnerability of your community?

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3. Can you explain how disasters destroyed development projects in your community?

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4. Can you cite examples on how disasters provided development opportunities in your community?

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Session-2

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

Session Objective:

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.

Handouts

DROUGHT

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

Before the Drought:

- establishment of seed banks and nurseries to ensure a stable supply of seedlings, seeds, cuttings and other plant materials.
- public awareness/education to prevent over cropping and overgrazing.
- community legislation to limit settlement in drought-prone areas.
- construction of reservoirs to hold emergency water supplies.
- harvest/impound rain water for use in agriculture.

During the Drought:

- propagation of drought resistant crops (e.g., crops that require less water such as root crops - sweet potato, cassava, 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:

- Find out how often your location is likely to be flooded.
- Know the flood warning system in your community and be sure your family knows it.
- Keep informed of daily weather condition.
- Designate an evacuation area for the family and livestock.
- Assign family members instructions and responsibilities according to an evacuation plan.
- Keep a stock of food which requires little cooking and refrigeration; electric power may be interrupted.
- Keep a transistorized radio and flashlight with spare batteries, emergency cooking equipment, candies, matches and first aid kit handy in case of emergency.
- Store supplies and other household effects above expected flood water level.
- Securely anchor weak dwellings and items.

When Warned of Flood:

- Watch for rapidly rising flood waters.
- Listen to your radio for emergency instructions.
- If you find it necessary to evacuate, move to a safe area before access is cut off by flood waters.
- Store drinking water in containers, water service may be interrupted.
- Move household belongings to upper levels.
- Get livestock to higher ground.

- Turn off electricity at the main switch in the building before evacuating and also lock your house.

During the Flood:

- Avoid areas subject to sudden flooding.
- Do not attempt to cross rivers of flowing streams where water is above the knee.
- Beware of water-covered roads and bridges.
- Avoid unnecessary exposure to the elements.
- Do not go swimming or boating in swollen rivers.
- Eat only well-cooked food. Protect leftovers against contamination.
- Drink clean or preferably boiled water ONLY.

After the Flood:

- Re-enter the dwellings with caution using flashlights, not lanterns or torchers. Flammables may be inside.
- Be alert for fire hazards like broken wires.
- Do not eat food and drink water until they have been checked for flood water contamination.
- Report broken utility lines (electricity, water, gas and telephone) to appropriate agencies authorities.
- Do not turn on the main switch or use appliances and other equipment until they have been checked by a competent electrician.
- Consult health authorities for immunization requirements.
- Do not go in disaster areas. Your presence might hamper rescue and other emergency operations.

Floods are aggravated by factors resulting from the carelessness and indifference of people usually before floods occur.

THINGS ONE CAN DO TO MITIGATE FLOODS:

- Regulate cutting of trees.
- Report illegal construction of fishponds and other establishments in waterways.
- Do not throw garbage in esteros and rivers.
- Help clean the neighborhood.
- Support community activities intended to lessen the occurrence of floods.
- Avoid throwing anything like plastic wrappers anywhere which may clog or block the drainage system.

AFTER

If you are inside an old structure, take the fastest and safest way out!

Do not rush to the exit; get out calmly in an orderly manner.

Do not use elevators, use the stairs.

Check yourself and others for injuries.

Unless you need emergency help:

Do not use your telephone to call relatives and friends. Disaster prevention authorities may need the lines for emergency communications.

Do not use your car and drive around areas of damage. Rescue and relief operations need the road for mobility.

Help reduce the number of casualties from the earthquake:

Don't enter partially damaged buildings strong aftershocks may cause these to collapse.

Gather information and disaster prevention instructions from battery-operated radios.

Obey public safety precautions.

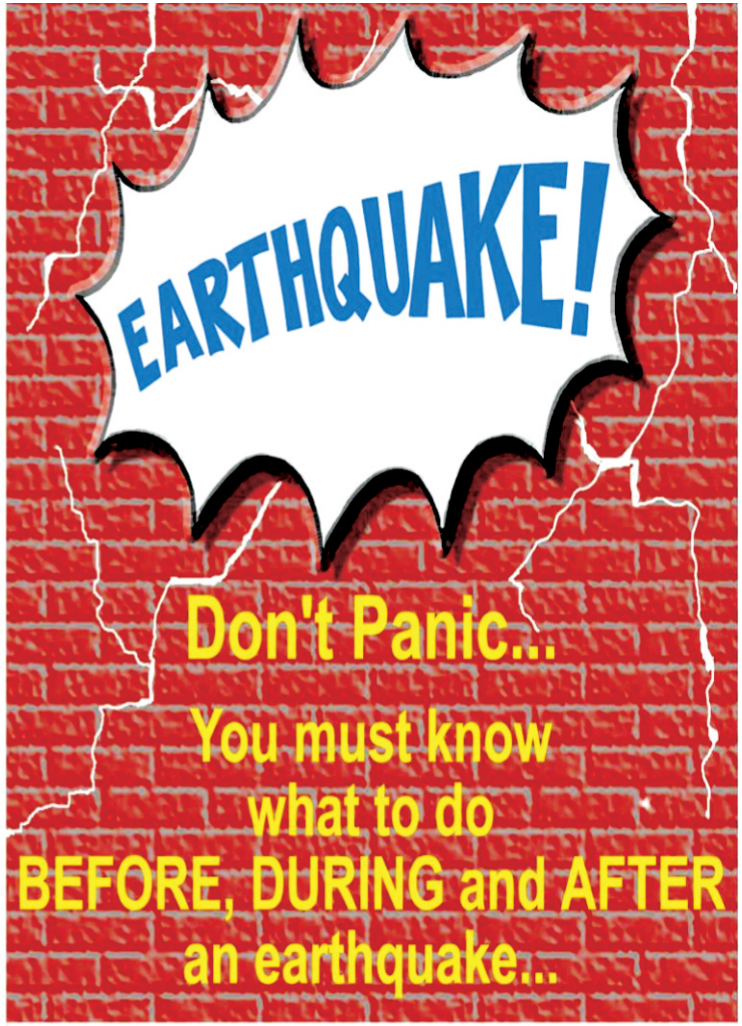
Check your surroundings

Clean-up chemical spills, toxic and flammable materials to avoid any chain of unwanted events.Check for fire and if any, have it controlled.

Check your water and electrical lines for defects. If any damage is suspected, turn the system off in the main valve or switch.

If you must evacuate your residence, leave a message stating where you are going.

Take with you your earthquake survival kit, which should contain all necessary items for your protection and comfort.



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BEFORE

The key to effective disaster prevention is planning.

Determine whether the site is along an active fault and/or prone to liquefaction or landslide which may cause damage to your house or building.

Be sure that proper structural design and engineering practice is followed when constructing a house or building.

Evaluate the structural soundness of buildings and important infrastructures; strengthen or retrofit if found necessary.

Prepare your place of work and residence for the event.

Strap heavy furniture/cabinets to the wall to prevent sliding or toppling.

Breakable items, harmful chemicals and flammable materials should be stored in the lowermost shelves and secured firmly.

Make it a habit to turn off gas tanks when not in use.

Familiarize yourself with your place of work and residence.

Identify relatively strong parts of the building like door jambs, near elevator shafts, sturdy tables, where you can take refuge during an earthquake.

Learn to use fire extinguishers, first aid kits, alarms and emergency exits. These should be accessible conveniently located, and prominently marked.

Most causes of injuries during earthquakes are from falling objects.

Heavy materials should be kept in lower shelves.

Check the stability of hanging objects which may break loose and fall during earthquakes.

Prepare and maintain an earthquake survival kit consisting of a battery powered radio, flashlight, first aid kit, potable water, candies, ready-to-eat food, whistle and dust mask.

DURING

If you are inside a structurally sound building, stay there!

Protect your body from falling debris by bracing yourself in a doorway or by getting under a sturdy desk or table.

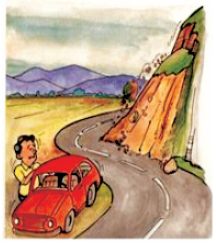
If you are outside, move to an open area.

Get away from power lines, posts, walls and other structures that may fall or collapse.

Stay away from buildings with glass panes.

When driving a vehicle, pull to the side of the road and stop.

Do not attempt to cross bridges or overpasses which may have been damaged.



If you are on a mountain or near a steep hillslope, move away from steep escarpments that may be affected by landslides.

If you are along the shore and you feel a very strong earthquake, strong enough to make standing difficult, it is always safest to assume that a tsunami (giant sea waves) has been triggered. Run away from the shore toward higher ground.

LANDSLIDE

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

Before the landslide:

- community risk assessment and hazard mapping
- monitoring, warning and evacuation systems
- plant trees, bamboos along the riverbanks
- construct 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
- regulate cutting of trees
- community legislation and land use regulation

During the landslide:

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

After landslide:

- work with community members to mitigate landslides like planting bamboos along the riverbanks, constructing river protection dikes (e.g., using gabion boxes), use of terracing technologies in the uplands, planting trees
- regulate cutting of trees
- community legislation and land use regulation

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)

Actions and Reflections

1. Can you enumerate 3 examples of flood preparedness measures?

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2. Can you give 3 examples of drought mitigation measures?

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3. Can you enumerate 5 examples of earthquake mitigation measures?

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Disaster 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 managmement plan;
2. Link disaster risk reduction plan to development.

Number of Sessions: 2

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

Session-1

Introduction to Community Disaster 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 reduction plan;
3. Link disaster risk reduction plan to development.

Key Notes:

- Coping mechanisms are what people resort to in order to manage difficult situations they are part of people's capacities to be strengthened in order to mitigate the adverse effects of disaster risks.
- 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.

Handouts

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:

1. Facilitate a "visioning" exercise among community members their dream of a "disaster resilient", developed community. Relate these with risk reduction measures preparedness, prevention, mitigation.
2. Enumerate hazards identified (in the HCVA) according to priority; enumerate problems brought about by the identified priority hazards.
3. Discuss each priority problem identified.
4. Set objectives in addressing each problem.
5. Identify risk reduction activities to address the problem.
6. Identify persons/groups to take charge in implementing the activity.
7. 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.
8. Set the time frame for the completion of the activity.
9. 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.

Community Disaster Risk Management Plan Outline

Hazard	Objective	Activity	Responsibility	Resources Needed		Period
				Existing	To Look For	

Actions and Reflections:

1. Can you describe the Community Disaster Risk Management Planning Process?

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Session-2

Planning Workshop

Session Objective:

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

Actions and Reflections:

1. What do you think should be the contents of your Community Disaster Risk Management Plan?

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Disaster Risk Management Action Plan Samakhi Village, Hongsa District, Lao PDR
February '06 January '07

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 (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

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