Training Manual

USAID Tahafuz Project
Building Resilience through Community Based Disaster Risk Management in the Sindh Province of Pakistan

RSPN

Rural Support Programmes Network
Islamabad, Pakistan

About Tahafuz

"Tahafuz" is a community-based disaster risk management (CBDRM) project that aims to build the resilience of local communities to resist hazard impact, to bounce back after disasters, and to adapt and change in order to ensure effective recovery. Funded by the United States Agency for International Development (USAID), this project will benefit an estimated 110,879 households in four disaster high risk districts of Sindh, namely Badin, Thatta, Umerkot and Tharparker. This project intends to address the lack of preparation of local communities and the government in dealing with pre and post disaster situation.
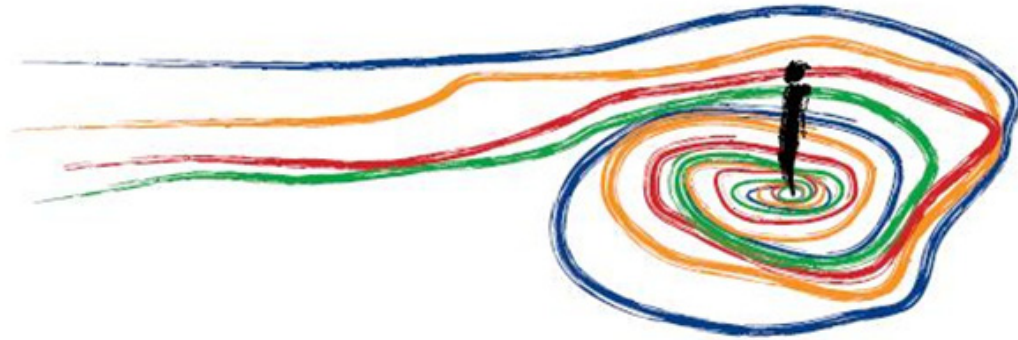
There is an urgent need to develop community based disaster risk management systems in which communities are actively engaged in building their overall resilience to natural disasters. This means putting the people themselves at the heart of decision making and implementation of disaster risk management activities.

By supporting the construction and rehabilitation of critical micro-community infrastructures and building the capacity of communities to manage and mitigate resources, Tahafuz will empower the residents of flood and cyclone prone areas to be better prepared to deal with these natural hydrological disasters. The Rural Support Programmes Network (RSPN) will implement the Tahafuz Project through its partners, the National Rural Support Prorgramme (NRSP) and Thardeep Rural Development Programme (TRDP).

Training Manual

TOT - USAID Tahafuz
CBDRM Project

Community participation has been recognized as the additional element in disaster management necessary to reverse the worldwide trend of increasing frequency and loss from disasters, build a culture of safety and disaster resilient communities, and ensure sustainable development for all.

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Foreword

Over the past decade, Pakistan has witnessed major natural disasters. The two severest disasters were the 2005 earthquake and the 2010 floods. While the former impacted Azad Jammu and Kashmir and parts of the Khyber Pakhtunkhwa province killing over 100,000 persons, the latter impacted over 70 districts across the country affecting a population of nearly 20 million. After both disasters, the government of Pakistan requested the international community, government organizations, and civil society organizations to provide immediate support. Amongst the international community, the American people through the United States Development Agency for International Development immediately responded and provide massive support to meet the emergency relief and early recovery needs of the disaster affected people. After the heavy rains of 2011 that largely impacted the Sindh province, USAID again provided support for emergency relief and early recovery.

While working together to provide emergency relief and early recovery response, USAID and RSPN also began working together to develop a project that used a more strategic approach to disaster management. The Community-based Disaster Risk Management (CBDRM) approach builds people's capacities for coping with disaster risks and reducing their vulnerability thereby developing safer and more resilient communities. The new project entitled 'Tahafuz - Building Resilience through Community Based Disaster Risk Management in the Sindh Province of Pakistan' was approved by USAID in September 2012. The USAID Tahafuz CBDRM Project of RSPN aims to develop and strengthen community institutions, mechanisms and capacities that can systematically contribute to build resilient communities. The overarching focus of the USAID Tahafuz CBDRM Project is to build resiliency to enable local communities to resist hazard impact, to bounce back after disasters and to adapt and change to ensure effective recovery. The USAID Tahafuz CBDRM Project also aims to promote community participation in disaster risk reduction through the adoption of participatory approaches, promote networking, and mobilize resources, the attribution of roles and responsibilities, and the delegation and provision of the necessary authority and resources to local communities.

The USAID Tahafuz CBDRM Project is now operational in 20 Union Councils of four disaster high risk districts[1] of the Sindh province, i.e. Badin, Thatta, Umar Kot and Tahrparker, and will benefit estimated 111,000 households. USAID Tahafuz CBDRM Project will provide support to communities

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1: These Disaster High Risk Districts are from the list prepared by NDMA.

through disaster preparedness, management and mitigation through supporting the construction/ rehabilitation of critical community infrastructure and building capacities of communities for enhancing resiliency. This will support the most vulnerable population of the flood and cyclone prone areas in meeting their preparedness and mitigation needs through CBDRM approach. RSPN is managing the USAID Tahafuz Project which is being implemented by its two partner organizations, i.e. the National Rural Support Programme (NRSP) and the Thardeep Rural Development Programme (TRDP).

Since capacity building process in an integral component of the USAID Tahafuz CBDRM Project, RSPN has developed this Manual. A training of trainers' course was organized for the USAID Tahafuz CBDRM Project staff using this Manual. Staff will use this Manual when they are conducting trainings for the Village Disaster Management Committees and Union Disaster Management Committees. While the Manual is project specific, it can also be used for the capacity building of RSPs' CBDRM practitioners, government and non-government agencies, to effectively implement natural disaster management programs with the support of communities.

Finally, I want to thank the USAID for funding the Tahafuz CBDRM Project under which this Manual has been prepared. I also want to thank Mr. Sohail Manzoor, Manual development consultant, for preparing this Tahafuz Manual.

Khaleel Tetlay
Chief Operating Officer
Rural Support Programmes Network
December 2012

Acronyms

ABC	Airway: Breathing: and Circulation
ADPC	Asian Disaster Preparedness Center
AJK	Azad Jammu and Kashmir
CAB	Chest compressing ,Airway and Breathing
CBDRM	Community-Based Disaster Risk Management
CBO	Community Based Organizations
CDRMO	Community Disaster Risk Management Organization
CERT	Community Emergency Response Team
CMDRR	Community-Managed Disaster Risk Reduction
CMI	Community Managed Infrastructure
CO	Community Organization
CRA	Community Risk Assessment
CPR	ABC steps of cardiopulmonary resuscitation
CVA	Capacity and Vulnerability Analysis
DDMA	District Disaster Management Authority
DDMA	District Disaster Management Authority
DDMU	District Disaster Management Unit
DIU	District Implementation Unit
DP Plans	Disaster Preparedness Plans
DPO	District Programme Officer
DRC	Disaster Risk Communication
DRM	Disaster Risk Management
DRMP	Disaster Risk Management Plan
ERRA	Earthquake Reconstruction and Rehabilitation Authority
EOC	Emergency Operation Center
FATA	Federally Administrative Tribal Area
IDNDR	International Decade for Natural Disaster Reduction
ISDR	International Strategy for Disaster Reduction
LGO	Local Government Ordinance
M&E	Monitoring and Evaluation
MSC	Most Significant Changes
NDMA	National Disaster Management Authority
NDMC	National Disaster Management Commission
NDMF	National Disaster Management Fund
NDMF	National Disaster Management Fund
NDRF	National Disaster Response Force
NGOs	Non Government Organizations
NIDM	National Institute of Disaster Management
NRSP	National Rural Support Program

PDMA	Provincial Disaster Management Authority
PDRA	Participatory Disaster Risk Assessment
PLA	Participatory Learning and Action
PME	Participatory Monitoring and Evaluation
PMU	Project Management Unit
PP&M	Programme Planning and Monitoring
PRA	Participatory Rural Appraisal/ Participatory Reflection and Action
PSU	Project Support Unit
RSPN	Rural Support Program Network
S&R	Search and Rescue
TMA	Tehsil Municipal Authority
TRDP	Thardeep Rural Development Program
UDMC	Union Disaster Management Committee
UNDP	United Nation Development Fund
USAID	United State Agency for International Development
VDMC	Village Disaster Management Committee
VO	Village Organization
WAPDA	Water and Power Development Authority

Introduction to the training manual

This training manual is developed to cater specific training needs of the RSPN CBDRM Tahafuz Project, this will be used for the capacity building of Tahafuz CBDRM Master Trainers , These Master Trainers will be from amongst the Tahafuz CBDRM Project staff members from the District Implementation Units, i.e. the Community Mobilizers and CBDRM Training Officers , subsequently these master trainers will build capacity of communities through training of village disaster management committees and training of union disaster management committees in the project district Badin, Tahrparker, Thatta and Umar Kot , This also can be used for the capacity building of RSPs CBDRM practitioners, including government and non-government agencies, to effectively implement natural disaster management programs/project with communities participation, the possible trainees are master trainers, social mobilizers, project managers, monitoring and reporting personal, VDMC and UDMC representative, Master trainers can acquire material from this training manual for the training of other stakeholders according to the nature and requirement of the trainee needs at local level.

The framework for training course

Framework of the training of trainers includes conceptual structure, General guidelines, aims, objectives, contents outline, methodology, role of facilitators, art of communications, DOs & DONs AND Don'ts and importance of review and assessment.

Conceptual Structure

»   Global, Regional and Local Situation and Trends of Disaster and its Management
»   Community Based Disaster Risk Management
»   Disaster Risk Assessment, Participatory Planning and Development of DRR Plans
»   Disaster /Emergency Response by Communities
»   Village Disaster Management Committees
»   Union and Village Disaster Management committees
»   Advocacy, Networking and Gender Mainstreaming
»   Leadership and Management
»   Organizational Management and Development
»   Training Cycle, Management , Organization and Conduction

General Guidelines for the Trainers

»   Please read the entire handbook thoroughly before conducting the training.
»   Plan and prepare visual aids for the training.
»   Arrange all required stationery/supplies for practice sessions.
»   Use local resources for materials production.
»   Activate each participant in group work.
»   Give enough time for practice.
»   Spend time for review during the training course.

The following is a suggested framework for a training programme.

Title of the training course

"Training of Trainers on Tahafuz CBDRM Project" for Master Trainers

Aim of the training course

The development and strengthening of resilient community institutions, mechanisms and capacities that systematically contributes towards reduction in losses due to disasters, training of trainers will enhance knowledge, skills and attitude of USAID Tahafuz CBDRM Project Staff in community based disaster risk management, risk assessment, DRR Planning, emergency response by communities (VDMCs/UDMCs) advocacy, networking, gender mainstreaming, leadership and management of VDMCs and UDMCs this will also support to master trainers to develop their capacity for producing need-based quality and relevant materials at the village level using available local resources.

Objectives of the training course

After the TOT training course, the participants will be able to perform as a master trainer under USAID Tahafuz CBDRM Project for the capacity building of Project staff, Village and union disaster management committees in the four project districts of sindh. The specific objectives are;

» to enhance participants skills as a master trainer for Tahafuz project
» to enable the participants for planning, organization and management of Tahafuz project capacity building component
» enable the participants to develop

required training material for the local level training activities
» enable the participants to ensure implementation of capacity building component of Tahafuz project within timeframe with quality and accuracy.

Content outline

The course may include the following topics:

Overview and Orientation

» An Introduction to RSPN
» Global Disaster Trends
» Disaster situation in Pakistan
» Disaster Management system in Pakistan (DRM Institutions, Legal framework, NDMA, PDMA, DDMA, DDMU etc.)
» CBDRM ,Tahafuz Project introduction (overview)
» Introduction to Training manual (background, objectives, methodology, etc)

Community Based Disaster Management

» Disaster Management (General)
» Disaster management related Terms and Concepts
» Role and Responsibilities of VDMC and UDMCs
» Community Based Disaster Risk Management (CBDRM)
» CBDRM Process(Steps)
» Participatory Risk Assessment (Hazard, Capacity, Vulnerability) of Villages by VDMCs
» Stakeholders Analysis for Community Based Disaster Risk Planning and Partnership by VDMCs
» Risk Analysis using and Quantify Vulnerability and Damage Estimation and Prioritization by VDMCs

- » Participatory Risk Reduction Planning of village by VDMCs
- » Resource mobilization for Disaster Risk Reduction
- » Community Managed implementation
- » Participatory monitoring and Evaluation by VDMC and UDMCs
- » Family level DRR Measures
- » Disaster Risk communication at community level
- » Multi Hazards/Disasters ,preparedness , mitigation and preventive measures at community level
- » Multi Hazards response and preventives measures
- » Climatic Change and DRR
- » Mainstreaming the DRR in Community Developing
- » Public Awareness in CBDRR through VDMC s and UDMCs

Disaster/ Emergency Response by VDMC and UDMCs

- » First Aid
- » Search and Recue
- » Fire fighting
- » Need Assessment (Initial and Details)
- » Relief Distribution
- » Shelter
- » Camp management
- » Early warning System by VDMC and UDMCs
- » Food and Nutrition Needs in Emergency
- » Food Security (in terms of Human and livestock)

Advocacy, Networking and Gender Mainstreaming by UCDMCs

- » Advocacy for DRR
- » Networking
- » Policy formulation

- » Basic Concepts of Gender and Development
- » Gender/women vulnerability

Organizational Management and Development (For UCDMC)

- » Leadership
- » Planning
- » Negotiation Skills
- » Conflicts management and Resolution
- » Financial Management
- » Record Keeping
- » Accountability and Transparency

Organization, Planning Management and Implementation of CBDRM Tahafuz Capacity Building Program

- » Training Design
- » Pre training arrangements
- » Conduction of training
- » Post training activities
- » Development of roll out plan

Target Users

The Tahafuz CBDRM Training Manual is primarily intended for those master trainers who will train the village disaster management committees and union disaster management committees working under Tahafuz Project in Sindh, Pakistan and those who will facilitate the implementation of CBDRM at the communities; they can also be:

- » Master Trainers
- » NDMA/ PDMA/DDMA
- » Trainers at district, provincial and commune levels
- » Provincial government officials
- » District government officials
- » NGOs/CBOs

» Line departments
» International organizations

Participants

» Master Trainers of Tahafuz Project
» VDMC Members
» UDMC Members

The number of participants in each batch would approximately be 20-25.

Methodology

The following steps were adopted while preparing the Tahafuz Community Based Disaster Risk Management Training Manual:

» Review of existing training manuals and curricula in the region
» Discussion amongst RSPN Management and professional staff
» Consultation with Tahafuz Project Team
» Consultation with Different Stakeholders

The entire training course should follow principles of adult learning or experiential learning. The method of each session should have 3 stages:

Stage one: **INPUT**
Trainer should introduce the concept or present the information for consideration or action.

Stage two: **PROCESS**
After getting input from the trainer, participants should put into practice their newly gained knowledge.

Stage three: **OUTPUT**
In this stage participants should demonstrate their achievement by producing something

tangible. It is recommended that trainers incorporate participatory training methods including pair or group work.

The most of the learning part is self-directed. It fills an immediate need and is highly participatory.

» Learning is experiential (i.e., participants and the trainer learn from one another).
» Time is allowed for reflection and corrective feedback.
» A mutually respectful environment is created between trainer and participants.
» A safe atmosphere and comfortable environment are provided.
» Training techniques used in this manual include the following:
  › Presentations - activities conducted by the facilitator or a resource specialist to convey information, theories, or principles;
  › Case Study Scenarios - written descriptions of real-life situations used for analysis and discussion;
  › Role-Plays - two or more individuals enacting parts in scenarios as related to a training topic;
  › Simulations - enactments of real-life situations; and
  › Small Group Discussions - participants sharing experiences and ideas or solving a problem together.

Qualification of trainers

It is expected that a minimum of 2 experienced trainers should be engaged in the whole training programme. Resource person(s) having related experience could be contacted for conducting the technical sessions. Facilitators of this course should be experienced in participatory training techniques and materials development at local level.

Purpose and scope

The purpose of this Tahafuz CBDRM training manual is to develop a cadre of master trainers on Community-based Disaster Risk Management (CBDRM) under Building Resilience through Community Based Disaster Risk Management (CBDRM) in the Sindh Province of Pakistan- Tahafuz Project funding support of United States Agency for International Development, Office of US Foreign Disaster Assistance Pakistan, It is expected that the training manual will be adapted and used by Public and Private sector stakeholders for the training of CBDRM Project Staff.

Evaluation and assessment

Peer Learning Groups

Daily evaluation and assessment of the groups will be conducted in the light of the following indicators:

» effective presentation
» meaningful communication
» conceptual clarity/contents
» team work
» time management

Individual's evaluation

Comprehensive evaluation of each individual will be carried out on the basis of the following indicators which will also be shared with the individual's respective organization/ project management:

» participation
» Communication and presentation
» Situation handling and conflict management

» time management
» meaningful discussion
» learning
» group work

The evaluation of the participants will be carried out in two tiers:

» Evaluation by participants
» Evaluation by training coordinator/ resource person

Workshop evaluation

Daily review session will be conducted to assess participants learning and address any unclear sessions and issues by using different review tools and techniques. The detailed workshop evaluation will be conducted at the end of the workshop.

Each training module is further structured as:

» Objectives of the session
» Key contents
» Methodology
» Material
» Expected outputs / outcomes /
» Reference Material

Role of the Facilitator

It is the responsibility of the facilitator to present each module's background material and activities as clearly as possible. Skills used to enhance communication include the following:

Nonverbal Communication

» Maintain eye contact with everyone in the group when speaking. Try not to favor certain participants.
» Move around the room without distracting

the group. Avoid pacing or addressing the group from a place where you cannot be easily seen.

» React to what people say by nodding, smiling, or engaging in other actions that show you are listening.

» Stand in front of the group, particularly at the beginning of the session. It is important to appear relaxed and at the same time be direct and confident.

Verbal Communication

» Ask open-ended questions that encourage responses. If a participant responds with a simple yes or no, ask "Why do you say that?"

» Ask other participants if they agree with a statement someone makes.

» Be aware of your tone of voice. Speak slowly and clearly. Avoid using slang or other "special" language.

» Be sure that participants talk more than you do.

» Let participants answer each others' questions. Say "Does anyone have an answer to that question?"

» Encourage participants to speak and provide them with positive reinforcement.

» Paraphrase statements in your own words. You can check your understanding of what participants are saying and reinforce statements.

» Keeps the discussion moving forward and in the direction you want. Watch for disagreements and draw conclusions.

» Reinforce statements by sharing a relevant personal experience. You might say "That reminds me of something that happened last year…"

» Summarize the discussion. Be sure that everyone understands the main points.

Effective Facilitation

Effective facilitation includes the following:

Setting the Learning Environment

» Read each module and review all materials and activities before each training session so that you are fully comfortable with the content and process. Start on time and clearly establish yourself as the facilitator by calling the group together.

» Organize all the materials you need for the session and place them close at hand, stay within the suggested time frames.

» Gain participants' attention and interest by creating comfort between yourself and them. Anticipate questions.

» Prepare responses and examples to help move the discussion forward.

Presenting the Objectives

» Provide a link between previous modules and the current one.

» Use the brainstorming techniques to refresh the background information that begin each unit to introduce the topic under consideration.

» Inform participants of what they will do during the session to achieve the module's objectives.

Initiating the Learning Experience

» Introduce, as appropriate, an activity in which participants experience a situation relevant to the objectives of the module

» Let participants use the experience as a basis for discussion during the next step.

» If you begin a module with a presentation, follow it with a more participatory activity.

Reflecting on the Experience

» Guide discussion of the experience.
» Encourage participants to share their reactions to the experience. Engage participants in problem-solving discussions.
» See that participants receive feedback on their work from each other and from you.

Discussing Lessons Learned

» Ask participants to identify key points that emerged from the experience and the discussion.
» Help participants draw general conclusions from the experience. Allow time for reflection.

Applying Lessons Learned to Real-life Situations

» Encourage participants to discuss how the information learned in the activity will be helpful in their own work.
» Discuss problems participants might experience in applying or adapting what they have learned to their own or different situations.
» Discuss what participants might do to help overcome difficulties they encounter when applying their new learning.

Providing Closure

» Briefly summarize the activities at the end of each module
» Refer to the objective(s) and discuss whether and how they were achieved. Discuss what else is needed for better retention or further learning in the subject area.
» Provide linkages between the module and the rest of the TOT workshop

» Help participants leave with positive feelings about what they have learned.

Covering All the Details

» Prepare all training materials (resources for research, reference materials, handouts, visual aids, and supplies) and deal with logistics (venue, tea breaks, and audio-visual equipment) in advance., the capacity building activities under USAID CBDRM Tahafuz Project will be at local level, some of the activities will be residential and some are not , so keeping in view the field situation training material for specific activity and sessions will be developed by using local available resources
» Clarify everyone's roles and areas of responsibility if other facilitators/resource persons are helping to conduct the training sessions Nominate one co facilitator from the participants and he will observe the progress of the workshop and to provide each other with feedback.
» Ask participants to evaluate the training both daily and at the end of the workshop. Plan follow-up activities and determine additional training needs.

DO's and DON'Ts of Training

The following **"dos and don'ts"** should ALWAYS be kept in mind by the trainer during any learning session.

DOs

- Do maintain good eye contact.
- Do prepare in advance.
- Do involve participants.
- Do use visual aids.
- Do speak clearly.
- Do speak loud enough.
- Do encourage questions.
- Do recap at the end of each session.
- Do bridge one topic to the next.
- Do encourage participation.
- Do write clearly and boldly.
- Do summarize.
- Do use logical sequencing of topics.
- Do use good time management.
- Do K.I.S. (Keep It Simple).
- Do give feedback.
- Do position visuals so everyone can see them.
- Do avoid distracting mannerisms and distractions in the room.
- Do be aware of the participants' body language.
- Do keep the group focused on the task.
- Do provide clear instructions.
- Do check to see if your instructions are understood.
- Do evaluate as you go.
- Do be patient.

DON'TS

- Don't talk to the flip chart/Multimedia Screen.
- Don't block the visual aids.
- Don't stand in one spot—move around the room.
- Don't ignore the participants' comments and feedback (verbal and non-verbal).
- Don't read from the curriculum.
- Don't shout at the participants.

Introduction to the Rural Support Programmes Network (RSPN)

RSPN

Introduction to the RSPN

This introductory session includes introduction, objectives, core competencies, member organizations, key achievements, completed and details of current ongoing projects of RSPN.

The Rural Support Programmes Network (RSPN) is a network of 12 non-governmental Rural Support Programmes (RSPs). RSPN was registered in 2000 as a non-profit company under Section 42 of Pakistan's Companies Ordinance 1984. RSPN is audited annually by KPMG.The RSPs involve poor communities in improved management and delivery of basic services and increased accountability of government to the people, through a process of social mobilization. RSPN is a strategic platform for the RSPs, providing them with capacity building support and assisting them in policy advocacy and donor linkages. RSPN has been a one window operation for donors to work with the RSPs during previous disasters i.e. the 2005 earthquake and the floods of 2007. USAID provided RSPN funds amounting to USD 2.386 million for the period December 2005- June 2006 for establishing tent schools and cash for work programs in Khyber Pakhtunkhwa and AJK after the earthquake (Agreement number 391-G-06-01069-00). During the IDP crisis in 2009 the RSPs reached over 1.5 million people, with the Sarhad RSP being key partner to the United Nations High Commission for Refugees (UNHCR) and the National RSP working closely with the WFP to distribute food and non-food aid. The RSPN has been facilitating RSPs to access relief projects, items through philanthropic giving as well as to coordinate with government and donors, during periods of disaster. Currently the RSPs have a presence in 110 of the country's 138 districts, stretching from the mountainous north to the central plains and down to the southern coastline. RSPs work directly with 4.6 million rural households in their areas of presence.

RSPN Objectives

» Building capacity of the RSPs and other members;
» Undertaking policy advocacy with government and other key stakeholders, in order to make key policies more oriented towards the needs of poor people. Advocacy is commonly undertaken by advocating practical experiences of the RSPs, across the country. It entails documenting and providing exposure to policy makers across Pakistan, demonstrating improved service delivery and public-private partnership models;
» Supporting programmatic innovations to improve programmes for poor people, as a value-addition to the work done by the RSPs;
» Supporting the RSPs in setting standards for quality programmes;
» Promoting networking, coordination and experience sharing within its member community and with external stakeholders.

Core Competencies

» Social Mobilization
» Monitoring Evaluation and Research
» Social Sector
» Policy Advocacy
» Gender Mainstreaming

The RSP activities, including those in disaster areas, work from the foundation of 'social mobilization' through a large network of Community Organizations (COs) those are village-based groups of 15-20 members. The current social network of the RSPN is 280,000

Community Organizations. Relief activities through the RSPs will involve community activists, where possible, with the RSPs using this vast network to put out quick relief to people.

In the past the RSPN and the RSPs responded to emergencies by leveraging community networks, providing medical aid (doctors, paramedics and medicines), food aid, and drinking water and non-food items. The scale and responsiveness of the RSPs is quick as they are localized, with existing offices in the flood affected districts proposed for this relief effort. The RSPs' relief efforts have been driven by the desire of most people to stay close to their families and communities, homes and assets. As with the RSPs' experience in Pakistan's earthquake affected northern districts, the earthquake in Baluchistan, the floods in Sindh and the IDP crisis, the RSPs provide localized solutions to such emergencies, taking into account issues of cultural acceptability and people's attachments to their assets and their land as well as women's mobility. Since July 2010, RSPN and RSPs have mobilized over USD 15.3 million in cash and in-kind from various sources including donors, UN agencies, development organizations, private foundations, individual philanthropists, and private sector organizations.

Member organizations

Following is the list of RSPN members organization which are working across the country under the umbrella of RSPN:

»   Aga Khan Rural Support Programme - AKRSP
»   National Rural Support Programme - NRSP
»   Punjab   Rural Support Programme - PRSP
»   Sindh Rural Support Organization - SRSP

»   Balochistan Rural Support Programme - BRSP
»   Sarhad Rural Support Program - SRSP
»   Thardeep Rural Development Programme - TRDP
»   Sindh Graduates Association - SGA
»   FIDA – Foundation for Integrated Development Action
»   Ghazi Barotha Tariqiati Idera - GBTI
»   NRSP - Institute of Rural Management
»   Azad Jammu & Kashmir Rural Support Programme - AJKRSP

Key Achievements of RSPN

»   Input into National Rural Development Strategy
»   Government Acceptance of Social Mobilization Approach
»   Community Consultations for Poverty Strategies
»   Input into Pakistan Devolution Plan and Activities
»   Influencing National Water Policy
»   Pakistan President Musharraf confers national award on Chairman RSPN, Shoaib Sultan Khan
»   Earthquake Relief and Rehabilitation
»   Reviving education in earthquake affected areas

» Support in Setting up RSPs
» Earthquake Affected Areas Initiatives with RSPs

Completed Projects

» Vitol-RSPN Promotion of Community Environment and Household Hygiene through Local Support Organizations
» UNICEF-RSPN Raising Community Awareness on Polio Campaign in High Risk Districts of Sindh
» USAID-PC-RSPN Family Advancement for Life and Health (FALAH)
» APF-RSPN Early Recovery in Remote District of Khyber Pakhtunkhwa Project
» USAID-RSPN Sindh Agriculture Recovery Project (SARP)
» UNICEF-RSPN 'Awareness-Raising Amongst Urban Communities of Karachi for Polio Vaccination of Children' Project
» BPF-RSPN Sehat Project
» Harnessing Threads of Change
» Poverty Scorecard Rollout - Benazir Income Support Program
» DFID-RSPN Komak Project Flood Relief and Rehabilitation
» USAID-RSPN Emergency Relief Assistance Projects
» UNICEF-RSPN Mother and Child Health Care Initiative
» GoP-RSPN Crop Maximization Project – II
» USAID-RSPN BAHAAL Project - Emergency Relief and Early Recovery Project for Flood Affectees Across Pakistan

Current Projects

» RAF-RSPN 'Emergency Obstetric and Neonatal Care in non LHW areas of Pakistan' Project
» EU-RSPN Capacity Building of Local Grassroots Organizations in Governance, Transparency and Gender Sensitization

» ISET-RSPN Post Indus Floods Research
» USAID-RSPN Assessment and Strengthening Program (ASP)
» USAID's Small Grants and Ambassador's Fund Program (SGAFP)
» BISP-RSPN Nationwide Rollout of Poverty Targeting Survey in Pakistan 2010-2011
» EKN-RSPN Pakistan Domestic Biogas Programme (PDBP)
» USAID Tahafuz CBDRM Project

Chapter 1

Global Disaster Trends and DRM System in Pakistan

Urban areas with more than 750 000 inhabitants

- less than 1 million
- 1 - 2
- 2 - 3
- 3 - 5
- more than 5 million

Cartographer: Hugo Ahlenius, Nordpil, www.nordpil.com. Raw data taken from the UN Population Division database.

Global Disaster Trends and DRM System in Pakistan

Objectives

To orient the participants about global and regional disaster trends, disaster situation in Pakistan, DRM system in Pakistan DRM institutions, legal framework, strategy and role of DRM institutions and associated public departments in disaster situation in Pakistan.

Contents

» Global and regional disaster trends,
» Disaster situation in Pakistan,
» DRM system in Pakistan
» DRM institutions and legal framework,
» Strategy and role of DRM institutions and associated public departments in disaster situation in Pakistan.

Methodology

» Brainstorming , Discussions
» Power Point Presentations
» Continuous interaction with participants
» Taking feedback from the participants and question answers

Duration

The duration of this session is one and half hours

Required materials

» Power Point Presentation, Handouts
» Analytical material on Global Disaster trends with statistics
» White board, soft board, markers, cards, masking tape

Expected outcome

Participants would have good understanding and knowledge about the disaster situation around the globe, and able to compare and analyze local situation, have better understanding about the role of different DRM institutions working in Pakistan.

Extra reading material and sources

» www.ndma.org.pk
» USAID Tahafuz CBDRM ToolKit
» Institutional Assessment of DRM Institutions, Pakistan, 2012 *by Sohail Manzoor*

Global Trend in Natural Disasters

Global trends in natural disasters for the last two decades show that both the number of disasters and the number of affected people are increasing, leading to major environmental and socio-economic costs. Within Asia itself, the Hindu Kush-Himalayan region is one of the most complex, dynamic, and intensive risk hotspots with earthquakes, floods, flash floods, landslides and debris flows, droughts, and wild fires as the main hazards. This is due to the physical and socio-economic characteristics of the Himalayan region combined with the changing risk factors such as environmental and climate change, population growth, and economic globalization. This contributes to hold back the socio-economic development in the region and hampers the progress in poverty reduction. Those who are already the most vulnerable are, and will be, the most affected. In general, climate change is expected to increase the frequency and intensity of extreme events. The noticeable impacts of climate change include the rapid melting of many glaciers leading to immediate risks of glacial lake outburst floods (GLOF) with implications for downstream communities and infrastructures and the increase of irregular rainfall patterns with a higher frequency of

floods and droughts. In the past the focus has been on on post-disaster response only, which is no longer adequate and effective in dealing with disasters, therefore a shift is occurring in the region, as well as worldwide, from response to prevention, preparedness and mitigation of disasters. Collecting and developing more data and technology alone, will also not be sufficient to improve peoples' lives. Policy makers and practitioners need to better understand local contexts and needs for improved disaster risk reduction activities.

(Source ; CRED Database on Disaster Management)

Global and regional water-related trends

Trends in natural disasters show they are continually increasing in most regions of the world. Among all observed natural and anthropogenic adversities, water-related disasters are undoubtedly the most recurrent, and pose major impediments to achieving human security and sustainable socio-economic development, as recently witnessed with disasters such as the Indian Ocean tsunami in 2004, Hurricane Katrina in 2005, Cyclone Sidr in 2007, Cyclone Nargis in 2008 and many others. During the period 2000 to 2006, 2,163 water-related disasters were reported globally in the EM-DAT database, killing more than 290,000 people, earthquake 2005 and flood 2010, 2011, and 2012 in Pakistan Killed more than 100,000 peoples and effected more than 20 million peoples afflicting more than 1.5 billion people and inflicting more than US$422 billion in damages.

Natural Disaster Event Density 1901 -2003
(Occurrences-Frequency)
[Events/Area sq mi 1901 –2003]
By 5 Continental Realms

102 YEARS

Higher Event Densities for an area
may suggest
Higher vulnerability
to disasters

Natural Disaster Events
Per Square Mile

High	ASIA
	AMERICAS
	OCEANIA
	EUROPE
Low	AFRICA

Total Affected
- ASIA
- AFRICA
- AMERICAS

Infrastructure Damage
- ASIA
- AMERICAS
- EUROPE

Map S. Fitzgerald 2005
Modified-Compiled
S. Fitzgerald 2005 from
CRED database.

Flood exposure by World Bank region as modeled (million people per year)

Region	1970	1980	1990	2000	2010
East Asia and the Pacific (EAP)	9.4	11.4	13.9	16.2	18
Europe and Central Asia (ECA)	1	1.1	1.2	1.2	1.2
Latin America and the Caribbean (LAC)	0.6	0.8	1	1.2	1.3
Middle East and North Africa (MENA)	0.2	0.3	0.4	0.5	0.5
OECD countries (OECD)	1.4	1.5	1.6	1.8	1.9
South Asia (SAS)	19.3	24.8	31.4	38.2	44.7
Sub-Saharan Africa (SSA)	0.5	0.7	1	1.4	1.8
World	32.4	40.6	50.5	60.5	69.4

In general, all water-related disasters events increased between 1980 and the end of the twentieth century Floods and windstorm events increased drastically from 1997 to 2006, but other types of disaster did not increase significantly in this period. Floods doubled during the period 1997 to 2006 and windstorms increased more than 1.5 times. Drought was severe at the beginning of the 1980s and gained momentum again during the late 1990s and afterwards. The numbers of landslides and water-borne epidemics were at their highest during the period 1998–2000 and then decreased. Waves and surges increased between 1980 and 2006. Flood exposures in 2010 69.4 million people out of this 44.7 million were from South Asia.

Fatalities

In general, water-related disaster fatalities followed a decreasing trend, but the fatalities record has occasional peaks. Droughts crested in the period 1983–1985, windstorms between 1989 and 1991, and waves and surges between 2004 and 2006. These peaks are attributed to the drought in Ethiopia in 1984, which resulted in 300,000 fatalities; the windstorm in Bangladesh in 1991, where 138,866 people died, and the 2004 Indian Ocean tsunami, which caused 227,237 fatalities. This shift in water-related disasters is alarming – even places that have never experienced these disasters before are experiencing them now. Promoting better awareness and preparedness for this sort of shift, and improving people's ability to cope with unusual events, are becoming increasingly challenging.

The number of people affected

The number of people affected by water-related disasters showed an increasing trend during the period 1980 to 2006 in general, with the highest peak between 2001 and 2003. The number of people affected by a single natural disaster usually varies from several hundred thousand to several million, depending on the type and location of the disaster. For example, a drought in India in 1987 affected 300 million people. The number of people affected by disasters increased in the late 1980s and then decreased until another sharp increase in the period from the late 1990 to 2003 caused by floods in China, which affected more than 150 million, and droughts in India in 2002, which affected 300 million people.

Economic loss

The estimated water-related economic losses globally show an increasing trend. The trend had a trough during the period 2001 to

Top 12 at risk countries of the world

1. Bangladesh
2. Indonesia
3. Iran
4. Pakistan
5. Ethiopia
6. Sudan
7. Mozambique
8. Haiti
9. Philippine
10. Colombia
11. India
12. China

(Source; DRR Wikipedia)

2003, and then increased sharply until 2006. The increase was due to the huge economic damage caused by Hurricane Katrina in the United States in 2005. The estimated damage caused by floods increased until the turn of the twenty-first century and then decreased.

Global Disaster Trends 1900-2011

According to the International disaster data base EM-DAT, Following are the global disaster trends from 1900 to 2011.

Natural disasters reported 1900 - 2011

Natural disaster summary 1900 - 2011 (linear-interpolated smoothed lines)

Number of people reported killed by natural disasters 1900 - 2011

Estimated damage (US$ billion) caused by reported natural disasters 1900 - 2011

Number of people reported affected by natural disasters 1900 - 2011

Natural disasters reported 1900 - 2011
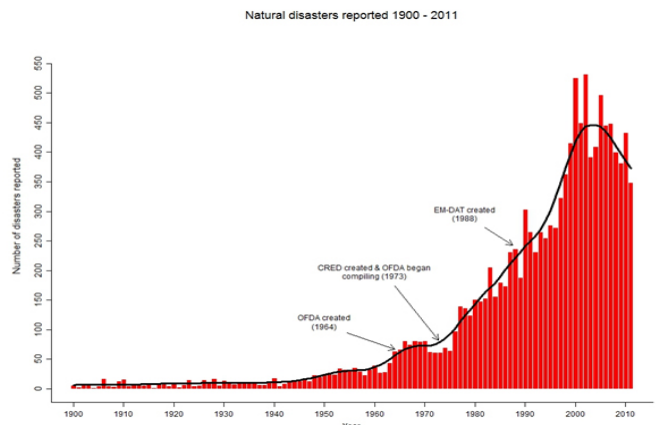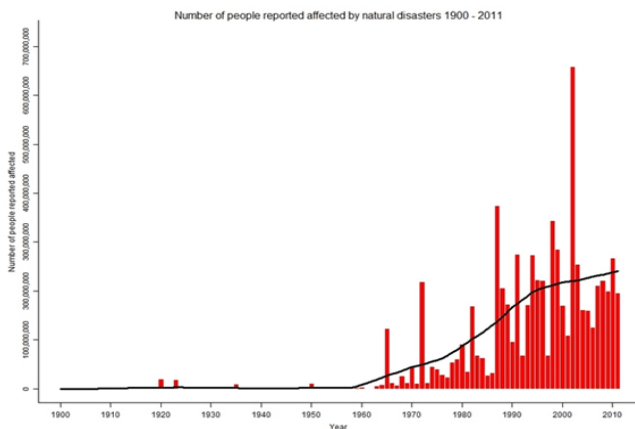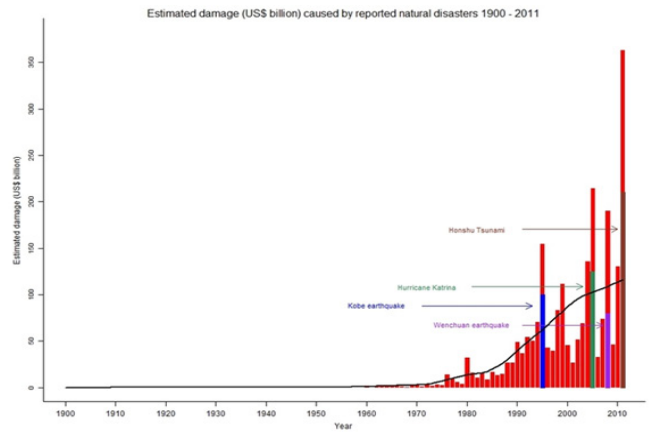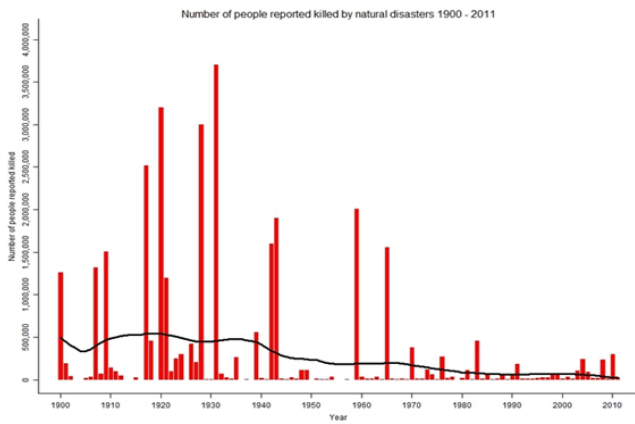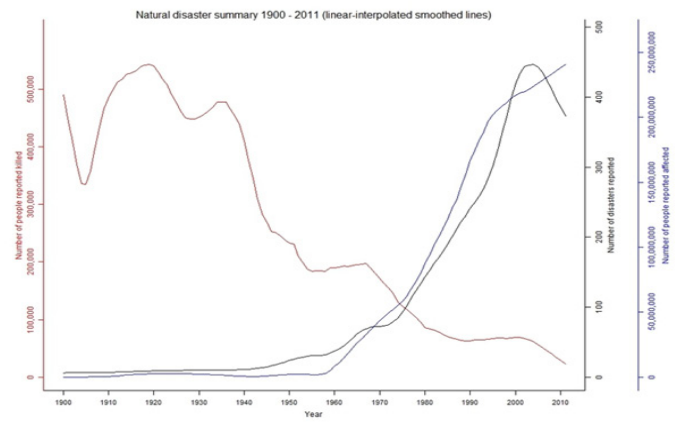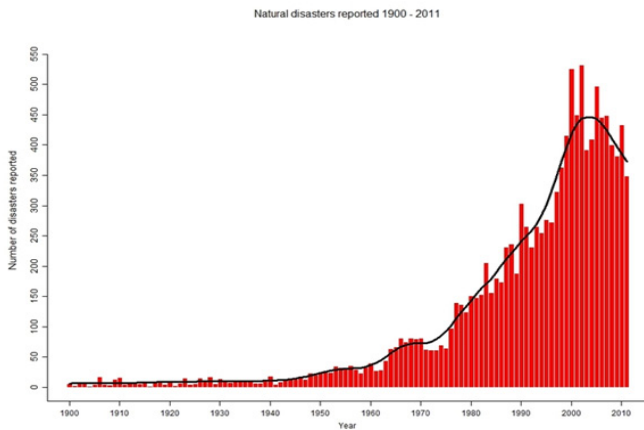
Source: International Disaster Data Base EM-DAT

Disaster Risk in Pakistan

Like other South Asian countries, Pakistan continues to suffer from a plethora of natural and human induced hazards that threaten to affect the lives and livelihood of its citizens natural disasters including floods, earthquakes, landslides, cyclones, and drought to human induced disasters such as fires, civil unrest and terrorism, refugees and internally displaced people, health epidemics, transport accidents, industrial accidents and war.   The human impact of natural disasters in Pakistan can be judged by the fact that 220,000 people were killed and more than 25 million affected in the period between 1993-2011.

Hazards

The exposure of Pakistan's to natural hazards and disasters could be ranked between moderate to severe. Natural hazards including avalanches, cyclones and storms, drought, earthquakes, epidemics, floods, glacial lake outbursts, landslides, pest attacks, river erosion and tsunami pose risks to Pakistani society. A variety of human-induced hazards also threaten the society, economy and environment. They include industrial, transport, oil spills, urban and forest fires, civil conflicts and internal displacements of communities. High priority hazards in terms of their frequency and scale of impact are:-earthquakes, droughts, flooding, Wind Storms and Landslides that have caused widespread damage and losses in the past. Given below is an overview of the key hazards that threaten Pakistan.

Earthquakes

The Indo-Australian plate upon which Pakistan, India and Nepal lie, is continuously moving northward and sub-ducting under the Eurasian plate, thus triggering earthquakes in the process and forming Himalayan mountains. Within the Suleiman, Hindu Kush and Karakoram mountain ranges, the Northern Areas and Chitral district in NWFP, Kashmir including Muzaffarabad, and Quetta, Chaman, Sibi, Zhob, Khuzdar, Dalbandin, the Makran coast including Gwadar and Pasni in Balochistan are located in high or very high risk areas. Cities of Islamabad, Karachi and Peshawar are located on the edges of high risk areas.

Four major earthquakes have hit Pakistan in 20th Century including: 1935 Quetta earthquake, 1945 Makran coast earthquake 1976 Northern Areas and the 2005 Kashmir/ NWFP quake. Seismologists like Dr. Roger Bilham and associates believe that one or more great earthquakes may be overdue in a large fraction of the Himalayas. They also don't rule out the chances of ruptures in the range of 7.5 Mw. to 8 magnitude in Balochistan area.

Droughts

The incidence of drought is becoming increasingly common in Pakistan with substantial consequences upon sustainable development in sectors of food security, livestock, agriculture, water resources, environment and hydro-electricity. Low

rainfall and extreme variations in temperature characterize the climate in Pakistan. About 60 per cent of the total land area is classified as arid, which annually receives less than 200 mm rainfall.

The main arid rangelands include Cholistan, D. G. Khan, D.I. Khan, Kohistan, Tharparkar and Western Balochistan. Average annual precipitation in Balochistan and Sindh provinces is about 160mm as compared with 400 mm in Punjab province and about 630mm in NWFP province. Rainfall variability during different seasons is also considerably high. Climate in lower southern half of the country is arid and hyper-arid. Some areas remain drastically dry in each region and are always vulnerable to drought with a small negative deviation from low mean rainfall. Certain areas experience two-three drought years in every decade.

History of Droughts in Thar Region, Pakistan

The history of droughts in Thar is quite long. A hundred years from now there was a severe drought which had no parallel in history of Thar. People had to survive on wild vegetables and many people died of hunger. The loss of cattle and livestock was also huge. Post independence droughts were recorded between 1951-56, 1962-63, 1968-69, 1979-81, 1985-87, and 1999-2002, 2005, 2008, 2012. It has been observed that in 10 years cycle, there are only three years on average which are considered good rainy years. The rainfall is more or less evenly divided over the entire Thar and people are able to harvest about 50-60 % of the food and cash crops. The rest of the seven years are considered poor years in which the rainfall is not sufficient to harvest more than 20-30 % of the crops. The seven scanty rainfall years in a decade is characterized by migration of more than 50% of the population

towards canal irrigated areas in search of food, fodder and employment. *(Source; TRDP)*

Women & children and Drought

Women and children are the most affected groups in the drought. Women especially pregnant and lactating mothers - Women are the focal point of rural socio-economic activities. They carry out 80% of agricultural activities and farm operations and also make available drinking water, fuel wood, fodder and other house hold items. They are responsible for providing basic health care to the entire family. Women are key players in the rural economy, industry and crafts. The lack of food, fodder and water in many areas is resulting in migration of men in search for employment. This leaves the womenfolk with increased burden to manage the household as well as trudge several kilometers to access drinking water. This affects the health and well being of the women and children as well. Considerable reduction in the hemoglobin level of pregnant women and the weight of children below the age of five is very common in rural community in drought years. Women are most-affected drought victims. They are also involved as care taker because of absence of their male members. All this lead to:

» Reduction in food availability because of inherent biases in food distribution as it is the women who are the first one to start skipping one meal a day.
» Glaring reduction in their hemoglobin levels and deficiency of iron, calcium and other vital components especially in pregnant and lactating mothers due to which there is a high incidence of night blindness and other ailments in women.
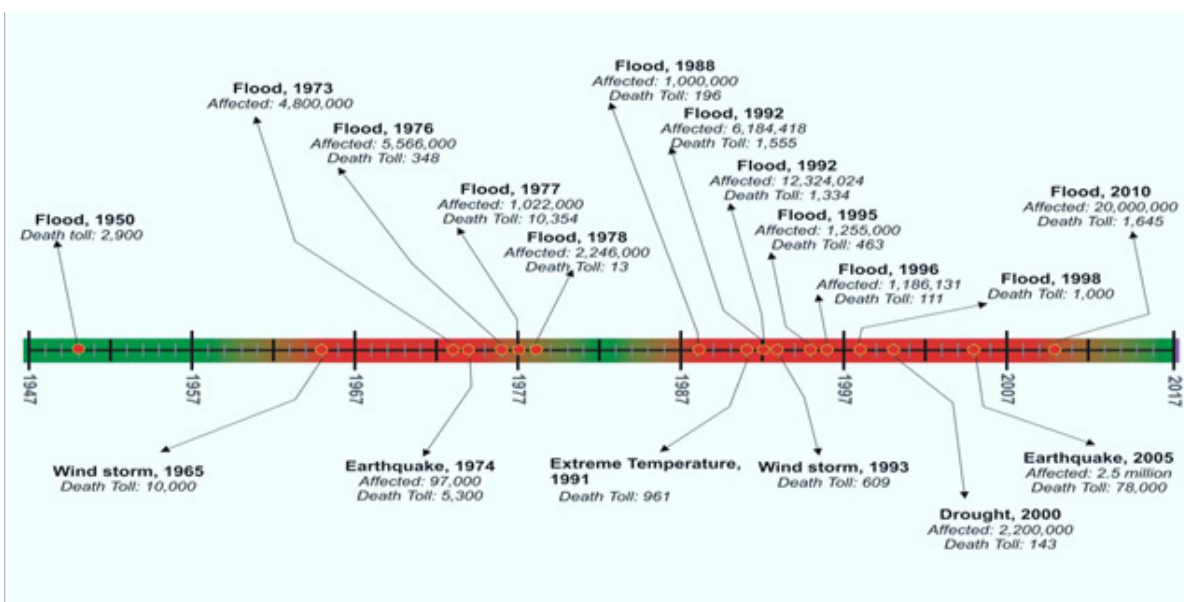» Increased sexual exploitation at home and at new work places consequent to migration to new places

Other special impacts of Drought

» Lack of vegetation cover and scarcity of water because of less than average rainfall, dry year and hot summer making it difficult for wild life and birds to quench their thirst. Lack of water in the severe weather has led to a loss in the bird population

» The majority of small cattle breeders (25 cattle heads) have suffered a reduction in herd size due to mortality and absence of fodder

» Increased in female headed household due to migration of men in barrage areas, ostensibly for search of job putting increased economic and social pressure on the women to ensure the subsistence of household with the help of uncertain remittance

» The villagers argued that due to migration social cohesion of households and communities have been affected due to segregation of families and geographically dislocation. It has become difficult for family members to unite on occasion of family bereavement or festivals.

» Most of the planned marriages have been delayed due to current drought.

Floods

Fifty six (56%) percent of the Indus river basin lies in Pakistan and covers approximately 70% of the country's area (IUCN, 2005). Generally major floods in the Indus basin occur in late summer (July-September) when South Asian region is subjected to heavy monsoon rains. In upper to mid reaches of the Basin, generally tributaries like Jhelum and Chennab are mostly the cause of flooding. Major flooding is mainly associated with the monsoon low depression that develops in the Bay of Bengal and move across India in west/north-westerly direction to enter Pakistan.

River floods particularly hit Punjab and Sindh while hill torrents tend to affect the hilly areas of NWFP, Balochistan and northern areas. Districts of Charsadda, Mardan, Nowshera and Peshawar in NWFP are exposed to risks from flooding in the river Kabul. Flash floods also hit hilly and mountain areas of Punjab, which may cause landslides and road erosion. Cloud Burst Flash Floods (CBFF) could also occur over Lahore(as it happened in 1996), Rawalpindi, Islamabad and Jhelum7. Floods in Pakistan can also occur dueto dam bursts; e.g. the floods in

Flood, 1950
Death toll: 2,900

Flood, 1973
Affected: 4,800,000

Flood, 1976
Affected: 5,566,000
Death Toll: 348

Flood, 1977
Affected: 1,022,000
Death Toll: 10,354

Flood, 1978
Affected: 2,246,000
Death Toll: 13

Flood, 1988
Affected: 1,000,000
Death Toll: 196

Flood, 1992
Affected: 6,184,418
Death Toll: 1,555

Flood, 1992
Affected: 12,324,024
Death Toll: 1,334

Flood, 1995
Affected: 1,255,000
Death Toll: 463

Flood, 1996
Affected: 1,186,131
Death Toll: 111

Flood, 1998
Death Toll: 1,000

Flood, 2010
Affected: 20,000,000
Death Toll: 1,645

Wind storm, 1965
Death Toll: 10,000

Earthquake, 1974
Affected: 97,000
Death Toll: 5,300

Extreme Temperature, 1991
Death Toll: 961

Wind storm, 1993
Death Toll: 609

Earthquake, 2005
Affected: 2.5 million
Death Toll: 78,000

Drought, 2000
Affected: 2,200,000
Death Toll: 143

Pasni due to Shadi Kot dam burst in February 2005.

In recent years, vulnerabilities of large cities to flooding have increased. Cities like Karachi, Lahore and Rawalpindi have experienced flooding due to inability of sewerage system to cope with heavy rains. Fourteen major floods that have hit the country since 1947 caused economic losses and damages worth USD 6 billion.

Landslides

The regions of Kashmir, Northern Areas and parts of the NWFP province are particularly vulnerable to landslide hazard. Aside from the young geology and fragile soil type of mountain ranges, accelerated deforestation is a major cause behind increased incidences of landslides. Small scale isolated landslide hazards happen frequently in the above mentioned regions. Frequency of landslides may increase in future since the forest cover is shrinking by 3.1% (7000-9000 ha taken away annually).

Tsunami

Pakistan also has a history of tsunami disasters. A big tsunami was experienced on 28 November 1945, due to an earthquake of magnitude 8.3, offshore Makran Coast. The tsunami produced sea waves of 12-15 meters height that killed at least 4000 people in Pasni and adjoining areas. Karachi, about 450 kms from the epicentre, experienced 6 feet high sea waves which affected harbour facilities.

The fact that cities like Karachi lie close to potential epicentres for large submarine earthquakes, demands attention for enhancement of local capacities for disaster risk reduction, early warning and response in order to reduce losses from tsunami events.

Cyclones/storms

Coastal belt of Pakistan (especially in Sindh) is highly vulnerable to cyclones and associated storm surges. Fourteen cyclones were recorded between 1971 and 200110. Cyclones can cause large scale damage to coastal areas of Sindh and Balochistan.

The cyclone of 1999 in Thatta and Badin districts wiped out 73 settlements and killed 168 people and 11,000 cattle. Nearly 0.6 million people were affected. It destroyed 1800 small and big boats and partially damaged 642 boats, causing a loss of Rs. 380 million. Losses to infrastructure were estimated at Rs. 750 million. Climate change may increase the frequency and intensity of storms and could cause changes in their tracks. Although the frequency of cyclones along Pakistani coast is low, yet they cause considerable damage, when they occur.

Glacial lake outburst flood (GLOF)

Another likely scenario that can come into play is the burst of glacial lakes in the upstream of Indus basin due to heat waves, a phenomenon termed as Glacial Lake Outburst Flood (GLOF). A recent study found that, of the 2420 glacial lakes in the Indus basin, 52 are potentially dangerous and could result in GLOF with serious damages to life and property. The study has also indicated that global warming can increase the potential of GLOF in future.

Avalanches

The Kashmir region and northern areas in Pakistan experience avalanches on a regular seasonal basis. Local people in the hazardous

region and tourists are vulnerable to this hazard. A study conducted by WAPDA in 1985-89 under the Snow and Ice Hydrology Project, identified the potential avalanche paths.

Transport and industrial accidents

Transport accidents are a common phenomenon in Pakistan. Particularly the train system is notorious for collisions. Plane crashes and road accidents are not uncommon events either. Ports in Karachi and Gwadar are also at risk from marine accidents too. In August 2003 the oil wreckage of Tasman Spirit, a Greek oil ship caused colossal environmental losses and health hazards for businesses, port workers and adjacent communities at Karachi. About 28,000 ton oil spilled all over the harbour area, which affected marine life in a major way.

The growing industrialization particularly within urban settlements in cities like Faisalabad, Gujranwala, Karachi, Hyderabad, Quetta, Lahore, Sialkot, Peshawar and elsewhere can be a source of major industrial and chemical disasters. The neighboring India suffered from Bhopal Gas leakage in 1985, in which 5000 people were killed and enormous health problems were experienced by citizens of Bhopal.

Urban and forest fires

With growing urbanization and industrialization in the country, risks of urban fires are on the rise. CNG gas stations are installed in all urban areas and the gas is also sold at small stores for household use. Sale of petroleum products within residential areas is also common in cities. These practices pose major fire risk in urban areas, while urban services are generally poorly equipped to fight these risks. The northern regions of Pakistan and AJK are prone to forest fires.

Civil conflicts

Pakistan is ethnically, linguistically, religiously and culturally a diverse society. This diversity has some times led towards civil conflicts amongst various social groups and has impacted most upon women, children and minorities. For example, Pakistan suffered sectarian conflicts during the 1980s and 1990s. These conflicts caused loss of life and damage to property, while creating insecurity for various social groups in the affected areas. The hosting of about 6 million Afghan refugees also damaged the social fabric of Pakistan.

Vulnerabilities

Main causes of vulnerability to hazards in Pakistan include; poor quality of construction of housing stock, buildings and infrastructure (particularly rural), fragile natural environment, poor livestock and agriculture management practices, weak early warning systems, lack of awareness and education and poverty. Lack of communications infrastructure and critical facilities further aggravate vulnerabilities of communities in post-disaster situations.

Most of the rural housing in Pakistan is adobe, which is extremely vulnerable to hazards like earthquakes, floods and landslides. In Kashmir, FATA, NA and NWFP, people build houses by pilling stones upon each other without any reinforcement. The indigenous practice of light-weight, timber-laced construction has given way to more massive masonry and reinforced concrete construction which provides adequate protection against harsh weather but is often poorly constructed to withstand strong earthquakes. The urban housing and infrastructure suffers from lack of implementation of building codes. The mushrooming of slums and urban poverty

has further compounded unsafe construction practices. Even a city like Quetta that was devastated by an earthquake in 1935 doesn't follow safer construction practices. Reasons lie in lack of political will, business interests, corruption, lack of information and trained man-power Fragility of natural environment in upstream areas of Indus river basin has also exacerbated conditions of vulnerability. Due to massive deforestation, the rate of soil erosion is quite high in the Northern region. Pakistan has been left with only 4 % forest and vegetative cover, in contrast to the required 25 % percent, thereby experiencing an intense and uninterrupted discharge of water, especially during monsoon seasons. This coupled with increasing snow melt in the Himalayan glaciers has intensified flood and landslide risks. Pressures upon forests and other natural resources need to be released in order to reduce vulnerabilities.

Overgrazing of marginal lands in Balochistan and Tharparkar, and cultivation of water-intensive crops, such as rice and sugar cane, has worsened the drought conditions. A many-fold increase in livestock population in arid zones has led to overexploitation of range-lands without providing them the time to recover. Simultaneously, extensive installation of tube-wells in Balochistan has accelerated extraction of ground water, which is lowering the water tables very fast. Solutions to drought and water shortage problems in arid zones require modifications in agricultural and livestock management practices; e.g. reduction in the size of livestock population to make it compatible with carrying capacity of rangelands and replacement of water-intensive crop varieties with drought resistant crops.

A little below one-third of Pakistani people are living under poverty-line, many of whom are inhabited in hazard prone areas. This

social segment which struggles to cope with daily life risks can not be expected to make disaster risk reduction a priority, and therefore suffers severely from disasters. The peculiar vulnerabilities of mountain communities in Northern Pakistan are caused by physical isolation, scattered settlement patterns and harsh climatic conditions. Development of infrastructure for health, education, safe drinking water and sanitation is usually overlooked due to high construction costs and nature of the terrain. Complexity of physical isolation is further compounded by fragile ecosystems susceptible to soil erosion, landslides and loss of bio-diversity. Often there is no other possibility than to build a house or road in a position known to be at risk. Mountain people lack access to hazard-resistant building technologies and construction materials. Vulnerabilities of mountain communities could be exacerbated in post-disaster scenario by road cuts, inability to receive relief supplies and harsh climatic conditions.

Dynamic Pressures

Population growth, urbanization, industrialization, the resultant environmental degradation and climate change/variability and gender power imbalances are working as major pressures behind the increasing vulnerability of Pakistani society and economy to disasters.

Population growth and size

Growth and size of Pakistan's population have become a major dynamic pressure, negatively affecting all aspects of social, economic and environmental life. Population has grown by 350 per cent since independence in 1947. Pakistan will be the second largest contributor to global population, after China, with a contribution of 133 million till 2025.

The expansion in animal population in arid and drought prone areas of Pakistan has also been enormous. A five to nine fold increase in livestock population in Tharparkar and Balochistan regions respectively has outstripped the carrying capacity of local rangelands. In-turn this effects local climate and weather patterns, resultantly exacerbating dry and drought conditions. The size of livestock in these regions needs to be reduced in order to minimize pressures upon local carrying capacity. This can be facilitated by providing mechanisms to export livestock from arid regions to other parts of the country. Alternative means of livelihoods could be promoted to diversify the sources of income in arid zones and to minimize extensive dependence upon livestock based livelihoods.

Urbanization, industrialization and environmental degradation

Pakistan is in transition from an agricultural and rural to a modern industrial economy. This gradual shift entails rapid urbanization, infrastructure development, environmental degradation, soil erosion and water and air pollution etc. Urban expansion is happening faster due to high rural-urban migration.

The preference for development of infrastructure and services in urban centres coupled with opportunities for jobs and higher incomes have acted as pull factors in attracting educated and uneducated rural lots to cities. With urbanization, consumption patterns shoot-upwards drastically. City life demands better services and more natural resources (land, water, forest) to sustain life styles. Growing industrialization also require more water, timber and mineral resources. This leads to accelerated exploitation of natural resources in countryside and upstream, thus degrading the environment; e.g. cutting of

forests, depletion of ground and surface water resources and land clearance for development. Studies indicate that environmental degradation in Pakistan may lead to land erosion and soil degradation, which could enhance landslides in Northern Areas, Kashmir and Muree Hill tracts. It could also increase torrential rains and flooding.

The clearing of mangroves along with reduced volumes of water discharge in the ocean in coastal Sindh has led to sea intrusion. The loss of this natural barrier could expose coastal communities and infrastructure to escalated frequency of storms and flooding.

Climate change and variability

As per observations of WWF Pakistan, global warming is causing damage to Pakistan's environment. Among the impacts felt and seen are biodiversity loss, shifts in weather patterns and changes in fresh water supply. A study carried out by GTZ for WAPDA to analyze trends in temperature and precipitation in the Northern Areas for the last century (Archer, 2001) found that at Skardu seasonal and annual temperatures have risen than the last century. Mean annual temperature has increased by 1.4° C with the mean annual daily maximum rising more than 2.35° C.

The winter temperatures have risen far more than summer with an increase of upto 0.51° C in winter maxima per decade since 1961. Temperature increase might cause an upward shift of almost 400 meters in the frost line. It might impact upon the snow and rain patterns and the availability of snow for melt during summer, which is a major source of water in many rivers. Observations of the World Glacier Monitoring Service based in Switzerland indicate that mountain glaciers in the Karakorams have been diminishing for

the last 30 years. Experts believe the flow of water in rivers increased during the decade of 1990-2000 in comparison to 1975-1990, which means melting of more ice upstream. Researches also indicate that some of the Glaciers in Pakistan have retreated significantly in the recent past. Scientists believe this is an indicator of climate change, resulting in more snow melt. Changes in the climate denote that the incidence of flash flooding and extreme flooding can increase during the next few decades.

Studies conducted by SDPI also indicate that with a doubling of CO_2, average rainfall in South Asia would increase between 17-59 per cent. This will be associated with a doubling in the frequency of high rainfall events. Variable monsoons, also anticipated, could mean more droughts. Experts also believe that further desiccation of arid areas due to warming would endanger food production in the plains unless a lot of trees are planted there.

Gender power imbalances

Countries having experienced large disasters demonstrate that the cost of ignoring gender in disaster response, recovery and preparedness is tremendous. This results in overlooking the damages, needs and priorities of most vulnerable in times of disaster and worsens existing poverty and inequity. Lack of gender sensitive assessments and programming intensify the existing political, social and economic inequality. In-spite of devastation they cause, natural disasters provide opportunities for social and economic change. Women should be empowered as equal stakeholders to act as key resource, before, during and after disasters in reducing loss to lives, household economy and in reducing break-down of social safety-nets.

Future Disaster Trends in Pakistan

The analysis of hazard risks, vulnerabilities and dynamic pressures bring home a scenario

Table 1: Overview of natural disasters in Pakistan

Event	Disaster	Location	Date	Affected
	Earthquake / Tsunami	Makran	325 BCE	-
1935 Balochistan Earthquake	Earthquake	Quetta	31-May-35	-
1945 Balochistan earthquake	Earthquake / Tsunami	Makran	November, 1945	-
Flood	Flood	Punjab	1950	-
Wind Storm	Wind storm	Sindh	December, 1965	-
Flood	Flood	Punjab	August, 1973	4,800,000
1974 Hunza earthquake	Earthquake	Northern Areas	December, 1974	97,000
Flood	Flood	Punjab, Sindh	August, 1976	5,566,000
Flood	Flood	Punjab, Sindh	June, 1977	1,022,000
Flood	Flood	Punjab, Sindh, Balochistan	July, 1978	2,246,000
Flood	Flood	Punjab, Sindh, NWFP	August, 1988	1,000,000
Extreme Temperature	Extreme Temperature	Punjab, Sindh, Balochistan	June, 1991	
Flood	Flood	Punjab, Sindh	August, 1992	6,184,418
Flood	Flood	Punjab, Sindh	September, 1992	12,324,024
Wind storm	Wind storm	Sindh	Nov-93	
Flood	Flood	Punjab, Balochistan	Jul-95	1,255,000
Flood	Flood	Punjab, Balochistan, Sindh, NWFP	August, 1996	1,186,131
Drought	Drought	Punjab	March, 2000	2,200,000
Earthquake	Earthquake	AJK/ NWFP	October, 2005	2.5 million
Flood	Flood	KPK, Punjab, Sindh, Balochistan	July/August, 2010	20 million

of more people living in and around hazard-prone areas. New settlements would continue to spring-up with expanding population in hazard prone areas. This trend may worsen over the years since population of Pakistan is expected to be doubled in another 25-30 years. At the other end, the frequency, severity and intensity of certain hazards is on the rise; e.g. droughts, flooding, soil erosion and landslides, resulting from environmental degradation and climate change. From these scenarios it could be concluded that disasters in future would be more frequent and their social, economic and environmental impacts higher than before. Regions that previously were not prone to certain hazards (e.g. droughts, flooding), may experience them in future.

According to the recent study[2], the analyses of disaster frequency over the last ten years. The analysis shows the most frequently reported disaster to be flooding the incidence of this rising to 95% in 2010. It is significant that the union councils found to be flood prone are also close to those that are prone to drought. This indicates an issue with water management. Other frequent disasters reported were earthquakes from 2005 to 2008 and diseased crops affecting income and livelihoods. Figures one and two show the trend lines for the frequency of these disasters. These graphs highlight that with the exception of 2005, earthquakes are not considered to be a

frequent occurrence in the districts analyzed (KPK and Punjab). The most frequent impacts appear to result from flooding and drought. These were recorded every year from 2001 with the exception of 2010 where the extent of flooding which spread across almost all districts meant that no drought occurred.

Figure 1: The frequency of the most common five disasters
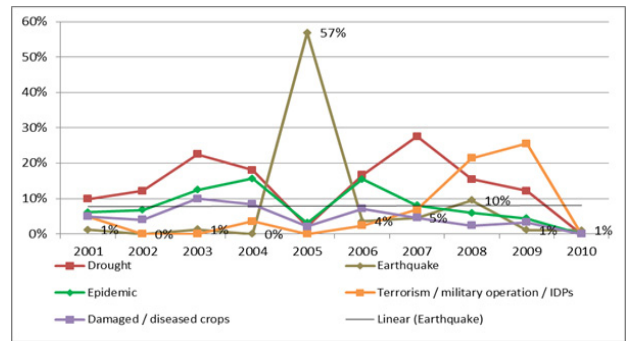
Due to the high frequency of flooding, making other comparisons difficult, this has been reported separately.

Figure 2: Frequency of flooding over the last ten years
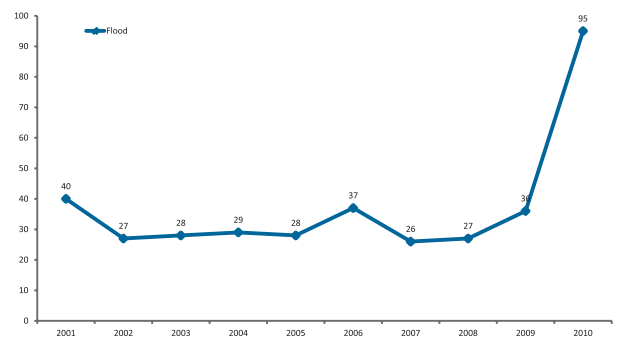
The incidence of flooding appears to be consistently high across all districts analysed making it a priority area in disaster management. It should be noted that this may alter in other districts/ provinces and should not be taken as representative for all Pakistan.
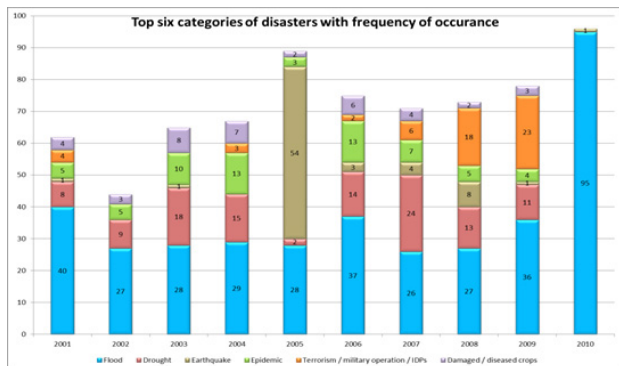
2: Sohail Manzoor, Dr. Nighat Sultana ; Institutional Assessment of Disaster Management Institutions funded by USAID/NCSW; 2012)

Disaster Management system in Pakistan

(National Strategy, Legal Framework and Institutions for Disaster Management)

Pakistan is vulnerable to disaster risks from a range of hazards including avalanches, cyclones/storms, droughts, earthquakes, epidemics, floods, glacial lake outbursts, landslides, pest attacks, river erosion and tsunami. Human induced hazards that threaten the country include transport, industrial, oil spills, urban and forest fires, civil conflicts and internal displacements of communities due to multiple factors. High priority hazards in terms of their frequency and scale of impact are:- earthquakes, droughts, flooding, Wind Storms and Landslides that have caused widespread damages and losses in the past.

Disaster Management Structure in Pakistan

- » **National Disaster Management Commission**
- » **National Disaster Management Authority**
- » **Provincial (Regional) Disaster Management Commission**
- » **Provincial (Regional) Disaster Management Authority**
- » **District and Municipal Disaster Management Authority**
- » **Tehsil and Town Authorities**
- » **Union Councils**
- » **Community Based Organizations**

A reactive, emergency response approach has remained the predominant way of dealing with disasters in Pakistan till now. The Calamity Act of 1958 was mainly concerned with organizing emergency response. A system of relief commission rate at provincial level was established. An Emergency Relief Cell (ERC) in the Cabinet Secretariat was responsible for organizing disaster response by the federal government. The awareness of policy makers,
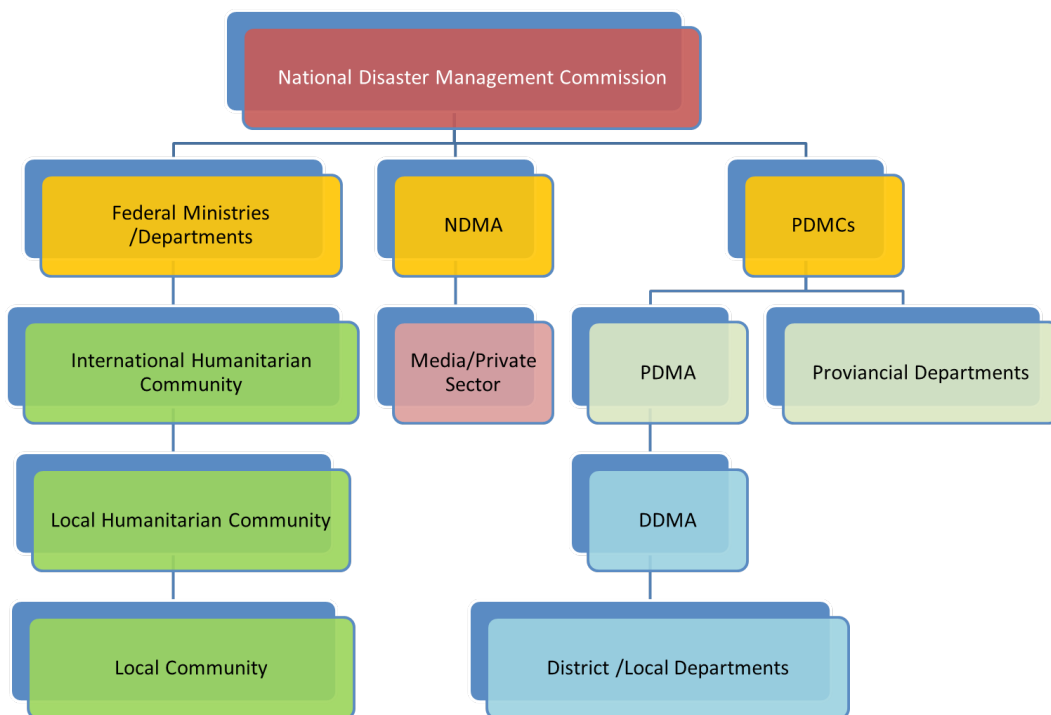
media, civil society, NGOs, UN agencies and other stakeholders remained low about disaster risk management and the Country as a whole lacked a systematic approach towards disaster risk management.

The loss of life and property and the challenges that were faced in the aftermath of October 2005 earthquake affecting Azad Jammu and Kashmir and the NWFP province exhibited the need for establishing appropriate policy and institutional arrangements to reduce losses from disasters in future. The need for strong institutional and policy arrangements has been fulfilled with the promulgation of National Disaster Management Ordinance, 2006. Under the Ordinance the National Disaster Management Commission (NDMC) has been established under the Chairmanship of the Prime Minister as the highest policy making body in the field of disaster management. As an executive arm of the NDMC, the National Disaster Management Authority (NDMA) has been made operational to coordinate and monitor implementation of National Policies and Strategies on disaster management.

The new system envisages a devolved and de-centralized mechanism for disaster management. Accordingly, Provincial Disaster Management Commissions (PDMCs) and Authorities (PDMAs) have been established while similar arrangements have been made in AJ&K and Northern Areas. The District Disaster Management Authorities (DDMAs) have been notified across the country. The DDMAs are going to be the linchpin of the whole system and would play the role of the first line of defense in the event of a disaster.

The National Disaster risk Management Framework has been formulated to guide the work of entire system in the area of disaster risk management. It has been developed

| Institutional and legal arrangements for DRM |
| Hazard and vulnerability assessment |
| Training, education and awareness |
| Disaster risk management planning |
| Community and local level programming |
| Multi-hazard early warning system. |
| Mainstreaming disaster risk reduction into development |
| Emergency response system, and |
| Capacity development for post disaster recovery |

through wide consultation with stakeholders from local, provincial and national levels.

The Framework identifies National Strategies and Policies for disaster management. Nine priority areas have been identified within this framework to establish and strengthen policies, institutions and capacities over the next five years The NDMA has already embarked upon a five year development program to implement the above nine priority areas. For the purpose, the NDMA in collaboration with international donor agencies, has already

secured commitments for the provision of 58 million dollars.

National Calamities (Prevention and Relief Act) 1958[3]

This Act appoints the Provincial Relief Commissioner (also member of provincial Board of Revenue) to be in charge and to ensure maintenance and restoration of law and order in areas affected by calamities and for extending relief to the affected population. It essentially allows for:

»   Resource mobilization for handling calamities: hiring of vehicles, earthmoving machinery, requisition of premises or maintenance of relief camps etc.
»   Survey of damages and losses occurred as a consequence of a calamity and compensate those affected by the calamities.
»   Ensure preparedness for emergencies by setting up a system of alarm and undertake situation specific preventive measures.

National Calamities Act 1958 is more directed towards relief and compensation and does not respond to disaster management as a holistic effort. The Act essentially caters for recurring damages occurring from the flood hazard.
It is implemented by the revenue staff, from province to district and down to tehsils (sub-district) level.

Local Government Ordinance 2001

The LGO provides governance guidelines for the devolved district government, headed by the Zilla (district) Nazim.

It is reviewed from DM context, as follows:

District Governance

»   District Nazim is entrusted with organising relief activities and with land use zoning, and in ensuring implementation of bye laws dealing with public and private housing and construction standards.
»   DCO has coordination functions to perform, which includes those for disaster management.
»   Village/neighbourhood council deals with water supply, sanitation, watch and ward, tree plantation, care of handicapped and destitute.
»   DPO is subordinated to the Nazim but he functions fairly independent of the district government.
»   Governance at all levels is entrusted with land zoning, storm water drainage, sanitation and solid waste disposal

Governance at Tehsil (sub-district)

»   Tehsil Municipal Authority (TMA) has been made an independent entity.
»   Tehsil must work in 3 areas: water supply, sanitation and drainage and provision of fire services, independent of the District and receives budget direct from the province.
»   Tehsil Nazim has no clear disaster response and management functions.
»   Tehsil Revenue Department responds to disasters under the district framework.
»   DSP Police works independently under DPO.
»   Tehsil governance structure is ill suited for DM

The LGO 2001 does not cover DM comprehensively though it alludes to its various components. The devolved governance structure that emerges is poorly suited for cohesive governance and quick decision

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3: Disaster Management Policies and Systems in Pakistan, for WDCR 2005

making, both essential requisites for handling emergency situations.

2002: Emergency Services Ordinance

The ordinance creation of emergency services to deal with threats to the public from modern forms of warfare grouped under the term 'terrorism' and disasters. A national council has been set up to deal with it and to guide and monitor the performance of these services.

According to the ordinance, the provincial governments shall have the administrative powers during such emergencies. Likewise, the District emergency Officer has been made responsible for the functional management of the service. The Federal government will mainly be responsible for ensuring uniform standards for the service throughout the country, provide advance training to Officers through National Academy and oversee the performance of provinces. Under the Emergency Services Ordinance, the Federal, Provincial and District Governments shall set-up Emergency Service, which shall be responsible for preparedness and rapid response.

2006/07 National Disaster Management Ordinance

The Ordinance provides a basis for legal and institutional arrangements for disaster management at federal, provincial and district levels. The Ordinance has attained permanency under the Provisional Constitution Order (PCO). The aim is to enable the Federal Government to put in place a comprehensive disaster management system for the entire country, while the Provincial Assemblies of Balochistan, the NWFP, Sindh and Punjab under Article 144 of the Constitution, passed resolutions

authorizing the Federal Government to make legislation on the subject. The Ordinance focuses on following four aspects

- » National, Provincial and District Disaster Management institutions
- » National Institute of Disaster Management (NIDM)
- » National Disaster Response Force
- » National Disaster Management Fund

Disaster Management Institutions

2007: National Disaster Management Commission (NDMC)

NDMC is the highest forum for disaster Risk Management chaired, ex-officio, by the Prime Minister. The members include leaders of the opposition in Senate and National Assembly, Federal Ministers for defense, health, foreign affairs, social welfare & special education, communication, finance and interior.

Membership also include the Governor NWFP (for FATA), Chief Ministers of 4 Provinces, Prime Minister of AJ&K, Chief Executive of NAs, Chairman JCSC, and representatives of civil society or any other person appointed by the Prime Minister. The Director General / Chairman of the NDMA acts as ex-officio Secretary to the commission

Key roles and functions of the NDMC are:

- » prepare policies and regulations on disaster management
- » approve the National Plan
- » approve plans prepared by the Ministries/ Divisions of the Federal Government in accordance with the National Plan
- » develop guidelines for the Federal
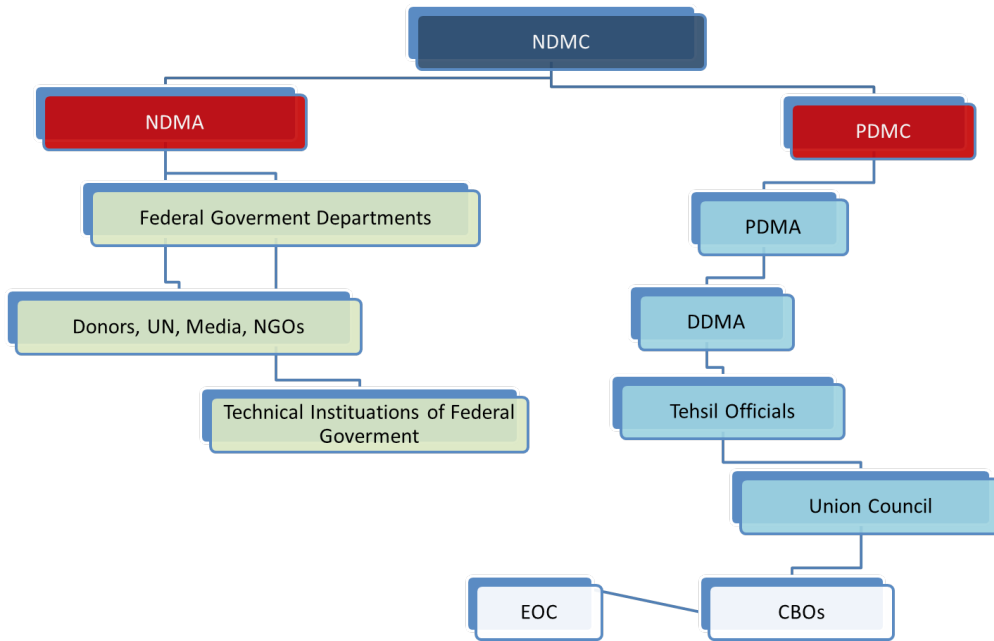
Government and Provincial Authorities

» arrange for and oversee provision of funds for the purpose of mitigation measures, preparedness and response

» provide support to other countries affected by major disasters, as the Federal Government may determine; and

» take such other measures for the prevention of disaster, or the mitigation, or

for preparedness and capacity building for dealing with disaster situation considered necessary.

National Disaster Management Authority - NDMA

The Chairman/Director General of the National Authority is appointed by the

Organogram of NDMA
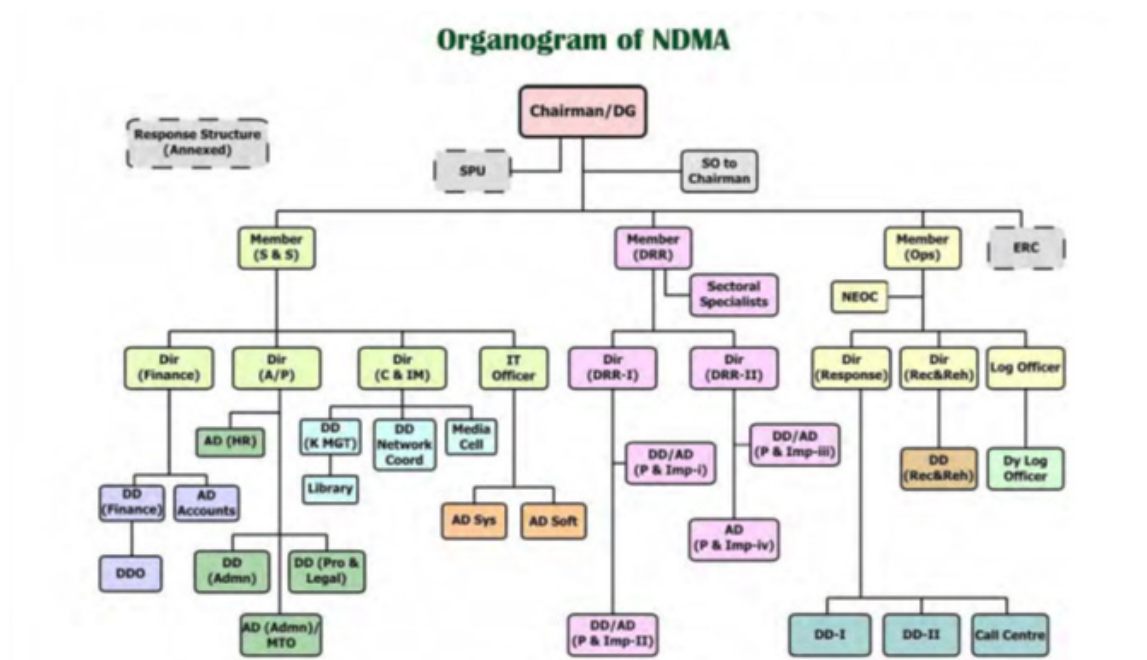
Federal Government. The National Authority shall consist of such number of members as may be prescribed and shall include as its Chairperson the Director General.

Key powers and functions of the NDMA are:

» act as the implementing, coordinating and monitoring body for disaster management
» prepare the National Plan to be approved by the NDMC
» implement, coordinate, and monitor implementation of the National policy
» Lay down Guidelines/ give directions to the concerned Ministries or Provincial Governments/Authorities regarding threatening disaster situation / disaster
» for any specific purpose or for general assistance, requisition the services of any person as a Co-opted Member
» promote general education and awareness in the context of disaster management; and
» Perform such other functions as the NDMC may require it to perform.

Provincial Disaster Management Commission (PDMC)

PDMC is headed by the Chief Minister of the Province as the Chairperson, ex-officio. Membership includes the leader of the opposition and one member to be nominated by him. Other members are nominated by Chief Minister. The Chairperson may designate one of the members as Vice-Chairperson.

Key powers and functions of the PDMC are:

» To formulate the Provincial Disaster Management Policy
» To prepare provincial plan in accordance with guidelines provided by the National Commission

» To approve the disaster management plan prepared by the provincial departments
» To review the implementation of the plan
» To oversee provision of funds for mitigation and preparedness measures
» To review development plans of provincial departments and ensure that prevention and mitigation measures are integrated therein; and
» To review the measures been taken by provincial departments for mitigation, capacity building and preparedness, and issue necessary guidelines/directions.

Provincial Disaster Management Authorities (PDMA)

Each provincial government shall establish a Provincial Disaster Management Authority for the province. The Provincial Authority shall consist of such number of members as may be prescribed, and shall include as its Chairperson the Provincial Director General or Provincial Relief Commissioner. There shall be a Director General of the Provincial Authority, to be appointed by the Provincial Government.

Key powers and functions of the PDMA are:

» To formulate the Provincial Disaster Management Policy with the approval of the Provincial Commission
» To coordinate and monitor the implementation of the National Policy, National Plan and Provincial Plan
» To examine the vulnerability of different parts of the Province to various disasters, and specify prevention or mitigation measures
» To lay down guidelines for Disaster Management Plans by the Provincial Departments and District Authorities
» To evaluate preparedness at all Governmental or Non-Governmental levels

Organizational chart:
- PDMA
  - Director - coordination
    - Consultant DRM
    - Consultant DRR
    - Policy Advisor
  - Director - Opeartion
    - AD-Operation
    - AD-Tech.
    - Consultant - Operations
    - CR & CP
  - Director - PDMA
    - DD South
    - AD Coordination
    - CDCP-GR
    - GS
  - IT & GIS Department
  - Director-Admin & Finance
    - AD
    - AD Admin
    - Audit & Account Officer
  - Public Relation Officer
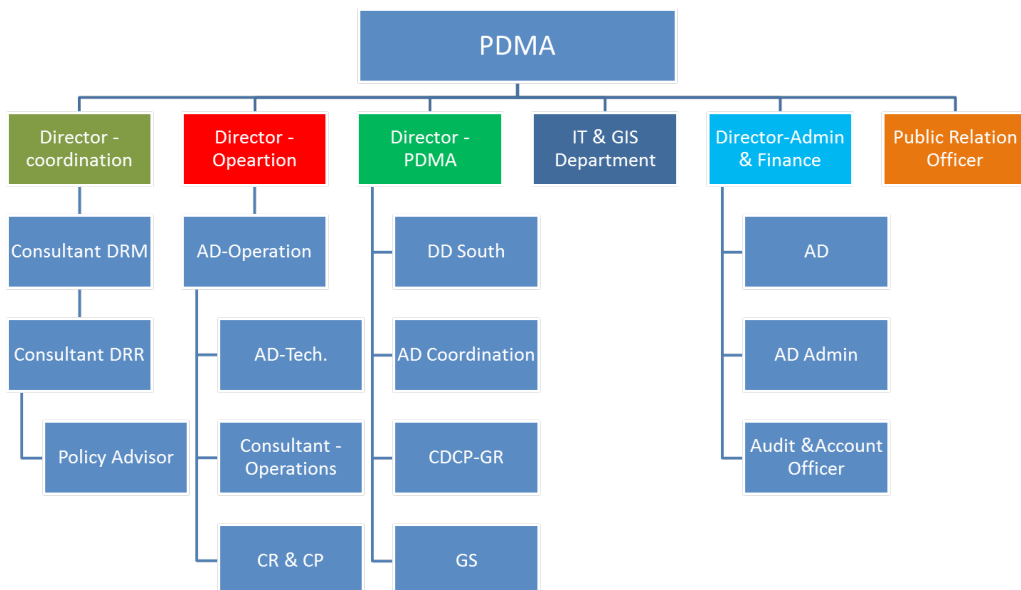
to respond to disaster and to enhance preparedness

» To coordinate response in the event of disaster

» To give directions to any Provincial Department or Authority regarding actions to be taken in response to disaster

» To promote general education, awareness and community training in this regard

» To provide technical assistance or give advice to District authorities and local authorities

» To advise the Provincial Government regarding financial matters in relation to disaster management

» To ensure prescribed construction standards

» To ensure that communication systems are in order and disaster management drills are being carried out regularly; and

» To perform such other functions as may be assigned to it by the National or Provincial Authority.

District Disaster Management Authority (DDMA)

District Disaster Management Authority (DDMA) will be headed by the Nazim as

chairperson ex-officio other members are the District Coordination Officer; the District Police Officer, ex-officio; the Executive District Officer Health; and such other district level officers, to be appointed by the District Government.

Key powers and functions of the DDMA are:

» To prepare a Disaster Management Plan including District Response Plan

» To coordinate and monitor the implementation of the National Policy Provincial Policy, National Plan, Provincial Plan and District Plan

» To ensure that the areas in the District vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments

» To ensure that the Guidelines for prevention, mitigation, preparedness and response measures as laid down by the NDMA and the PDMA are followed by all Departments

» To give directions to authorities at the District level to take all such measures for the prevention or mitigation of disasters as may be necessary

» To lay down Guidelines for preparation

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                    ┌─────────┐
                    │  DDMA   │
                    └─────────┘
                         │
┌──────────────────┐  ┌─────────────────────┐
│ Media, NGOs, Banks│──│ All Public Departments at │
└──────────────────┘  │    District Level    │
                      └─────────────────────┘
                              │
                        ┌──────────┐
        ┌──────────┐    │  Tehsil  │
        │Media, NGOs│───│ Officials │
        └──────────┘    └──────────┘
                          │
          ┌────────────────┐  ┌──────────┐
          │ Tehsil Public  │  │  Union   │
          │  Departments   │  │ Council  │
          └────────────────┘  └──────────┘
                              │
                         ┌────────┐
                         │  CBOs  │
                         └────────┘
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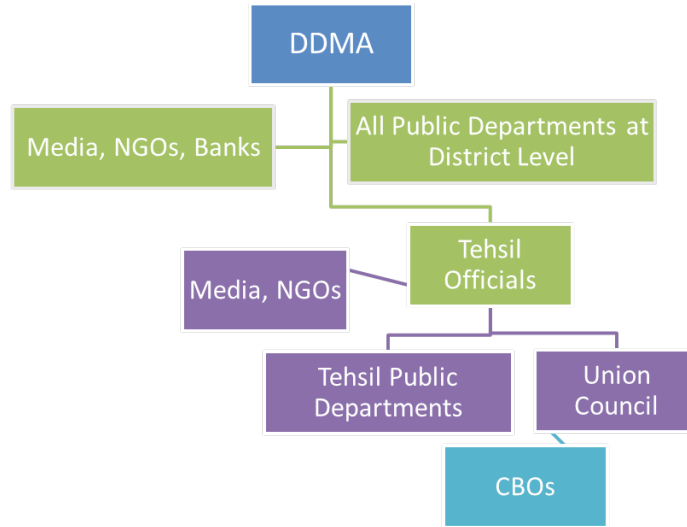
All line departments, and including police, military, fire services, civil defense, ambulance

services, existing at the district, tehsil, municipal and union council levels

Pakistan Red Crescent Society

Academic and Research Institutions

NGOs

Religious organizations

Private Sector (business groups, associations)

Professional associations (engineers, teachers, masons etc)

Media

Banks, insurance

District Council

of Disaster Management Plans by the Departments and local authorities in the District

» To set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public

» To prepare, review and update District level Response Plan and Guidelines

» To coordinate with local authorities, and give them Guidelines to ensure that pre-disaster and post-disaster management activities in the District are carried out promptly and effectively.

National Institute of Disaster Management (NIDM)

NIDM is tasked to develop training modules, undertake research and documentation in the field of Disaster Management, and organize training programmes. The Institute will formulate and implement a comprehensive Human Resource Development Plan, covering all aspects of Disaster Management. The NIDM will also provide assistance in national and provincial level policy formulation in the field of Disaster Management.

NIDM will develop educational materials for Disaster Management including Academic and Professional Courses and will promote awareness among stakeholders, including College or School Teachers and Students, technical personnel and others associated with multi-hazard mitigation, preparedness and response measures.

National Disaster Response Force (NDRF)

The Ordinance allows NDMA to establish a National Disaster Response Force for the purpose of specialist response to a threatening situation or disaster. The Force shall be constituted in a prescribed manner and the terms and conditions of service of the members of the Force shall be laid down. The general superintendence, direction and control of the NDRF shall vest in the NDMA.

National Disaster Management Fund

Under Ordinance, the Federal Government has a provision to constitute a National Disaster Management Fund through Notification, for

meeting any threatening situation or disaster. The Fund shall be financed from the following sources, namely:

a. grants made by the Federal Government;
b. loans, aid and donations from the national or international agencies;
c. donations received from any other source.

NDMF shall be kept in one accounts maintained in local or foreign currency, in scheduled banks in Pakistan and shall be operated in accordance with the directions of the by the NDMA. The Fund shall be administered by the NDMA towards meeting the expenses for emergency preparedness,

response, mitigation, relief and reconstruction. Each Provincial Government shall establish a Provincial Disaster Management Fund. It shall be financed through grants made by the Federal Government/Provincial Governments; loans, aid and donations from the national / international agencies. This Fund shall be used for meeting the expenses for emergency preparedness, response, mitigation, relief and reconstruction in the Province.

Institutions working on disaster management in Pakistan

Phase	Agency
Mitigation/Prevention	Federal Flood Commission
	Provincial Irrigation Departments
	Water and Power Development Authority (WAPDA)/ Dams safety council
Preparedness and Response	Armed Forces
	Civil Defense
	Emergency Relief Cell
	Fire Services
	National Crisis Management Cell (NCMC)
	Pakistan Meteorological Department
	Police
	Provincial Communication and Works
	Provincial Food Departments
	Provincial Health Departments
	Provincial Relief Commissioners
	Provincial Agriculture and Livestock Departments
	Rescue 1122
	Space and Upper Atmospheric Research Commission (SUPARCO)
Recovery and Reconstruction	Earthquake Reconstruction and Rehabilitation Authority (ERRA)
	Provincial Irrigation Departments

Role of Public Department in Disaster

Civil Defiance: 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.

Chapter 2

Introduction to USAID Tahafuz CBDRM Project

Building Resilience through Community Based Disaster Risk Management (CBDRM) in the Sindh Province of Pakistan

Introduction to USAID Tahafuz CBDRM Project

Objectives

After this session the participants will be able to understand about USAID Tahafuz CBDRM Project, it's implementation partners, structure, function, role and responsibilities of VDMC and UDMCs.

Contents

- » Background and overview of the situation in the project area
- » Project overview and its objectives
- » Key indicators to assess the program
- » Structure of VDMCs and UDMCs
- » Introduction of the Tahafuz Project Management Unit
- » Role and responsibilities of VDMCs and UDMCs
- » Key function of the VDMCs and UDMCs

Methodology

Project Documents will be shared along with a PowerPoint presentation. A group exercise asking the participants to share their perception and understanding about the Role, responsibilities and functions of the VDMCs and UDMCs and later sharing with them these things as described in the project document.

Duration

The duration of this session is two hours

Required materials

- » Copies of the project document
- » PowerPoint presentation
- » multimedia
- » flip charts
- » markers
- » board markers
- » white board markers

Expected outcome

At the end of the session participants will have clear understanding about the Tahafuz Project, its aims and objectives, the Project Management structure, functions and structure of the VDMCs and UDMCs.

Extra reading material and sources

- » Project documents,
- » USAID Tahafuz CBDRM Toolkit,
- » Handouts
- » CBDRM Training Manual in Urdu *by Sohail Manzoor 2005*

Introduction to USAID *Tahafuz* CBDRM Project

The past couple of years, the Sindh province has been at the receiving end of worst hydrological disasters. Tens of millions of people have been affected, thousands have lost their lives and millions have been made homeless. In some districts, the frequency of these disasters has been so high that the same people have been affected by these disasters twice or thrice in the last few years. Due to increase in destructive nature as well as frequency of these hydrological disasters, there is a great need for preparedness from all stakeholders which can help in minimizing the damages inflicted by them. Although some steps have been taken by the National Disaster Management Authority (NDMA) in association with other concerned stakeholders in this regard, much work still needs to be done in this respect. This is because even after all the damage that has been done over the recent years, significant populations of these areas still remain highly vulnerable and their knowledge and preparation of dealing with any future hazards is extremely low or even negligible.

Rural Support Program Network has developed a project with the overall objectives of development and strengthening of resilient community institutions, mechanisms and capacities that systematically contributes towards reduction in losses due to disasters. The over arching focus of this project is to build resiliency to enable local communities to resist hazard impact, to bounce back after disasters and to adapt and change to ensure effective recovery. Promote community participation in disaster risk reduction through the adoption of specific policies, the promotion of networking, the strategic management of volunteer resources, the attribution of roles and responsibilities, and the delegation and provision of the necessary authority and resources.

The aim of Tahafuz CBDRM project is to create and nurture resiliency within communities to better manage and respond to disasters. This will be achieved by reducing the:

» Probability of failure through risk reduction measures;
» Consequences of failure, in terms of fewer lives lost, fewer injuries and reduced direct
» and in direct damage;
» Time needed for recovery

The CBDRM Tahafuz Project will benefit estimated 110,879 households in four Disaster High Risk Districts of the Sindh province, i.e. Badin, Thatta, Umar Kot and Tharparker, through disaster preparedness, management and mitigation through supporting the construction/rehabilitation of critical micro community infrastructure and building capacities of communities for enhancing resiliency. This will support the most vulnerable population of the flood and cyclone prone areas in meeting their preparedness and mitigation needs through Community Based Disaster Risk Management (CBDRM) approach.

The Rural Support Programmes Network (RSPN) will manage the Tahafuz CBDRM Project activities through its partners, i.e. the National Rural Support Programme (NRSP) and Thardeep Rural Development Programme (TRDP). The total project cost is USD 1,399,962 and the duration is 12 months. RSPN has the capacity to manage this project. To cope with disasters there is a strong need for resilient communities in these high risk areas of the Sindh province having capacities with:

1. Ability to reduce the probability of failure;
2. Capacity to bounce back during and after disaster (thus to reduce the consequences of failure);
3. The opportunity for change and adaptation following a disaster (thus to reduce the time needed for recovery as well as patterns of vulnerability).

Since resilient community is a moving target, and realistically it may not be possible for communities to achieve absolute resilience against hazards, however, communities can still achieve a certain level of resilience through establishing institutional arrangements. Key indicators to achieve program objective of community resilience are:

a. A Village Disaster Management Committee (VDMC) exists;
a. A Community Based Disaster Risk Management (CBDRM) and Disaster Preparedness (DP) plan is prepared;
a. A Community Early Warning System established for rapid internal dissemination, and for linkages with DDMA, PDMA, and Pakistan Meteorological Department for receiving timely information.
a. A cadre of volunteers is trained in risk assessment, planning, search and rescue operation, medical first aid, relief distribution, and fire fighting

a. Critical community infrastructures (CCIs) constructed/rehabilitated, e.g. **rescue points, connecting paths, flood proofing of vulnerable shelters/public buildings, protection of drinking water reservoirs, link paths**, etc.
a. Physical connectivity available: roads, electricity, telephone, clinics
a. Relational connectivity with local authorities, NGOs, etc. exists
a. Enhanced knowledge of risks and risk reduction actions, including knowledge about grain storage, safe keeping of documents, etc
a. Safer rescue points readily available

The vulnerable communities in the selected vulnerable villages will be mobilized through formation of Village Disaster Management Committee (VDMC) representing vulnerable population of the village which will enable the smooth carrying out of project activities in the area. Each VDMC will comprise of 10 members, with a minimum 5 being women. Main roles of VDMC will be to undertake disaster risk assessment and analysis, preparation of disaster risk management plan, prioritize key activities, mobilize resources and implement prioritized activities.
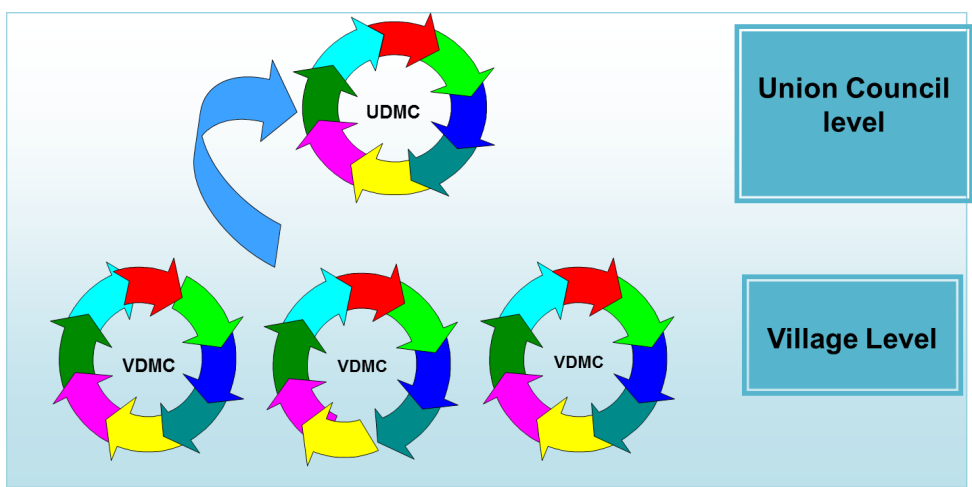
All the VDMCs from a union council will be brought together as Union Disaster Management Committee (UDMC). Each VDMC will nominate two persons (one man, one woman) to UDMC. UDMC main role will be to network with local stakeholders, undertake advocacy with local government and others, and provide support to VDMCs.

Orange box

Why community

» In the event of big disaster, governments and their first responders cannot save all the victims in time.
» If people are well aware of their imminent disaster risks and know and are well prepared for how to respond to them, there is high possibility of saving their lives by themselves.
» On the contrary, lack of awareness against disaster risks could lead to huge human and economic losses
» "Risk perception gap" – the actual risk and what recognized by people
» Many national & local governments and experts have developed hazard/risk maps to raise people's awareness, which should be utilized effectively

Tahafuz Project Management Unit

RSPN has subcontracted this project to NRSP and TRDP who will be responsible for implementation of the *Tahafuz* CBDRM Project activities in their respective districts. RSPN will take a lead role in coordinating the efforts of the RSPs, ensuring quality control, and timely delivery of outputs as well as monitoring the implementation process by the RSPs. RSPN will also be responsible for the financial management of the project. Partner RSPs are present in all 20 union councils proposed for the *Tahafuz* CBDRM project. RSPN will be leveraging RSPs' organizational capacities,

organizational infrastructure, geographical coverage and the network of Community Organizations for the implementation of the *Tahafuz* CBDRMProject. For the implementation, monitoring and reporting of the *Tahafuz* CBDRM Project, RSPN and partner RSPs will put in place an organizational structure at three levels.

1. At the RSPN level, a Project Management Unit (PMU) will be set up and this PMU will have the overall responsibility for the management of the Tahafuz CBDRM Project. PMU will have a full time Project Manager who will be assisted by a Finance Officer, two Monitoring Officers and CBDRM Capacity Building Specialist. At District level. PMU will have the overall management, supervision, monitoring, reporting and accounting responsibilities for the Tahafuz CBDRM Project, **as well as having liaison with NDMA.**

2. At the RSP level, **Project Support Unit (PSU)** will be established and these regional offices will have the overall responsibility for the implementation of the Tahafuz CBDRM Project. PSU will be headed by a full time Project Coordinator and assisted by Finance Officer, Data Entry Operator, Monitoring Officer and a Project Engineer. PSU will have the overall responsibility for supervision, procurement, implementation, monitoring, reporting and accounting of the RSP component of the Tahafuz CBDRM Project, and for maintaining close liaison with PMU, **as well as with PDMA.**

3. At the district level, a District Implementation Unit (DIU) will be set up within RSPs' district offices. DIU will be led by a full time District Project Officer and will have the support of a Field Engineer, two Community Mobilizers[4], two Field Supervisors, CBDRM Training Officer and a Finance Assistant. DIU will be responsible

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4:   In case of Thatta district, there will be two Field Engineers, four Community Mobilizers, two CBDRM Training Officer, and four Field Supervisors since the district has much larger number (107) of project revenue villages.
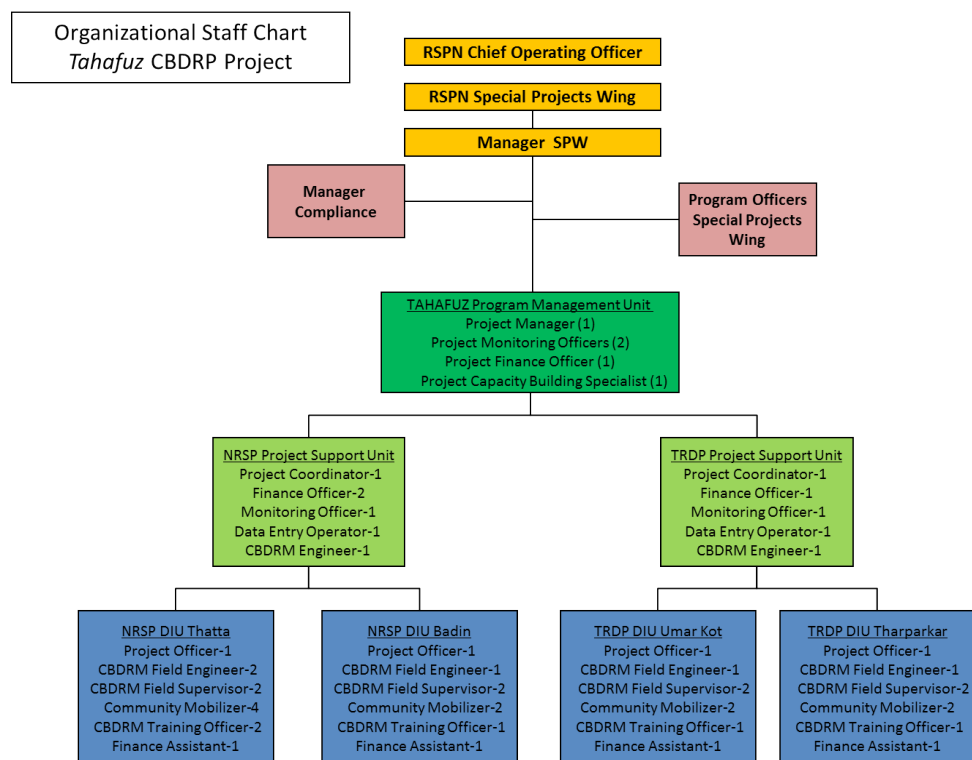
for implementation and reporting, and maintain a close liaison with PSU, **as well as with district level stakeholders including DDMA.**

The districts selected for the Tahafuz CBDRM Project are from the list of disaster high risk districts prepared by NDMA, and where RSPN's partner RSPs have a presence. RSPN aims to initiate the Tahafuz CBDRM Project in four of the most susceptible districts of the Sindh Province and also based on the presence of implementing partner RSP i.e. the Badin, Thatta, Umar Kot, and Tharparker. The inclusion of these districts is not only merited by the massive scale of destruction caused by floods in the past two years but also their greater vulnerability to disasters based on factors like, closeness to coastal areas, LBOD canals and the River Indus. Within the project districts, five most vulnerable Union Councils will be selected, and within the Union Councils most vulnerable villages will be selected for project support.

Role and Responsibilities of VDMC and UDMCs

The vulnerable communities in the selected vulnerable villages will be mobilized through formation of Village Disaster Management Committee (VDMC) representing vulnerable population of the village which will enable the smooth carrying out of project activities in the area. **Each VDMC will comprise of 10 members, with a minimum 5 being women.** Main roles of VDMC will be to undertake disaster risk assessment through hazard mapping and analysis, prepare of disaster risk management plan, prioritize key activities, mobilize resources and implement prioritized activities.

All the VDMCs from a union council will be brought together as Union Disaster Management Committee (UDMC). Each VDMC will nominate two persons (one man, one woman) to UDMC. UDMC main role will be to network with local stakeholders, undertake advocacy with local government and others,

Organizational Staff Chart
Tahafuz CBDRP Project

RSPN Chief Operating Officer

RSPN Special Projects Wing

Manager SPW

Manager Compliance

Program Officers Special Projects Wing

TAHAFUZ Program Management Unit
Project Manager (1)
Project Monitoring Officers (2)
Project Finance Officer (1)
Project Capacity Building Specialist (1)

NRSP Project Support Unit
Project Coordinator-1
Finance Officer-2
Monitoring Officer-1
Data Entry Operator-1
CBDRM Engineer-1

TRDP Project Support Unit
Project Coordinator-1
Finance Officer-1
Monitoring Officer-1
Data Entry Operator-1
CBDRM Engineer-1

NRSP DIU Thatta
Project Officer-1
CBDRM Field Engineer-2
CBDRM Field Supervisor-2
Community Mobilizer-4
CBDRM Training Officer-2
Finance Assistant-1

NRSP DIU Badin
Project Officer-1
CBDRM Field Engineer-1
CBDRM Field Supervisor-2
Community Mobilizer-2
CBDRM Training Officer-1
Finance Assistant-1

TRDP DIU Umar Kot
Project Officer-1
CBDRM Field Engineer-1
CBDRM Field Supervisor-2
Community Mobilizer-2
CBDRM Training Officer-1
Finance Assistant-1

TRDP DIU Tharparkar
Project Officer-1
CBDRM Field Engineer-1
CBDRM Field Supervisor-2
Community Mobilizer-2
CBDRM Training Officer-1
Finance Assistant-1

emergency response and provide support to VDMCs.

Village Disaster Management Committee (VDMC)

In the four *Tahafuz* CBDRM project districts, the five most vulnerable union councils will be selected for the project support and activities and within these unions councils the most vulnerable communities will be selected for the formation of village level Village Disaster Management Committee (VDMC) with women membership not less than **50%**. The criteria for the selection of community for the formation of VDMC will include vulnerability of the villages.

VDMC will conduct community-based risk assessment, analysis and develop risk mitigation plans to increase communities' preparedness. VDMC will then undertake the implementation of prioritized disaster risk mitigation measures through construction of community critical infrastructure under the supervision and technical guidance of Project Field Engineers.

Key VDMC functions in CBDRM

» Village level hazard mapping
» Conduction of village disaster risk assessment
» Analysis of disaster risk based on the assessment and prioritize the key activities to be undertaken to undertake disaster risk mitigation measures
» Identification and prioritization of critical community infrastructure needed for the disaster risk mitigation measures
» Formulation of project implementation committees
» Coordination with UDMCs and sharing of information needed to plan CBDRM activities

Other than this various other specific functions regarding preparedness, emergencies and recovery are given below:

Preparedness functions of VDMC

» Share community Disaster Risk Management Plan (DRMPs) with all members of the community
» Conduct disaster preparedness training with VDMC members
» Raise community awareness on what to do before, during, and after a disaster.
» Monitor disaster threats, conduct drills, and draw lessons to improve the plan. Expand membership and involvement in disaster risk management committees and activities.

Emergency functions of VDMC

» Issue warnings in case of emergencies
» Manage evacuations at village level
» Organize search and rescue with community participation at village level
» Conduct Damage Assessment at village level and report damages and needs to government and disaster management agencies for assistance as per Government designed reporting formats and criteria
» Coordinate, plan, and implement emergency relief delivery operations with DDMA, civil defense and other local agencies and UDMCs.

Recovery functions of VDMC

» Ensure that risk reduction measures are integrated during construction and rehabilitation of critical community infrastructures
» Evaluate the performance of VDMC capacity and effectiveness to promote community safety

» Coordinate with UDMCs for the implementation of different recovery measures

Union Disaster Management Committee (UDMC)

VDMCs will federate at union council level as Union Council Disaster Management Committee (UDMC). This UDMC will be formed by getting nomination of two persons (one male and one female) from each VDMC through resolution. UDMC will also set up an Emergency Response Team (ERT). ERT members will be trained in first aid and search and rescue operations. UDMCs will also be engaged in networking at Taluka (sub-district) and district levels for the effective coordination with Government, line agencies and other stakeholders to handle the unforeseen disasters and for the effective planning before and after the disaster scenario.
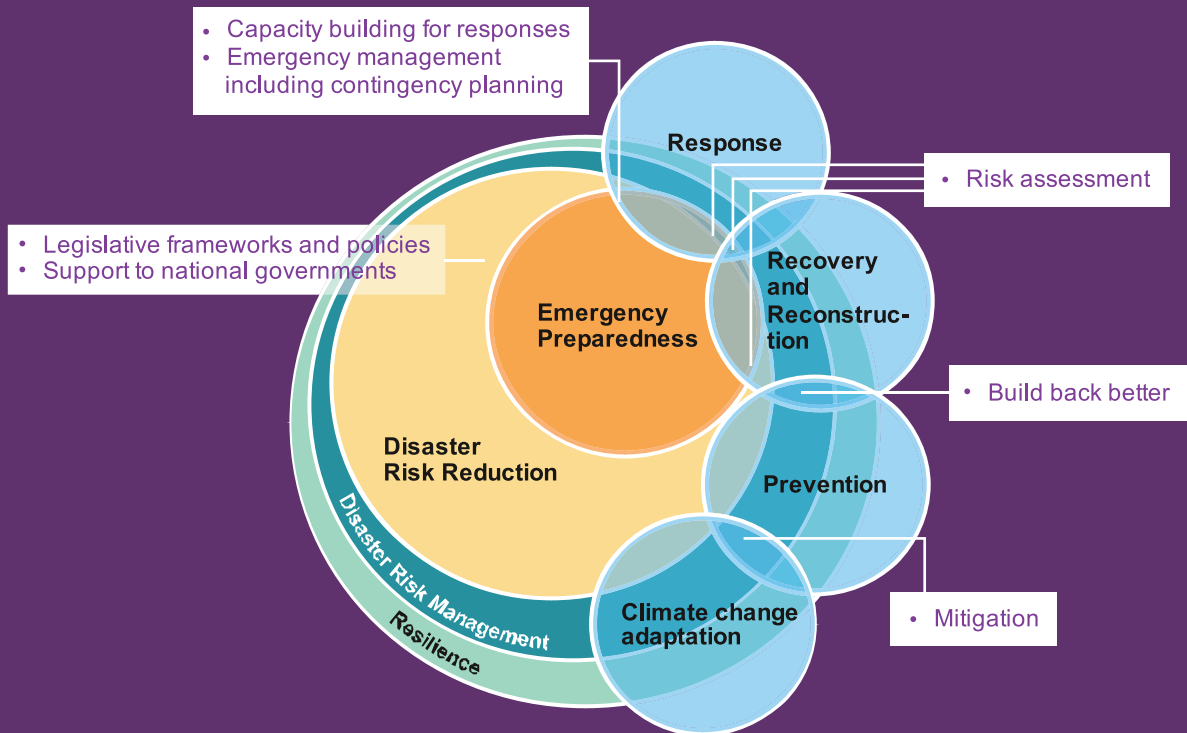
Union Disaster Management Committee (UDMC) functions

» To support VDMCs to develop the local community members into a prepared community in the immediate-term and resilient community on long-term basis
» Ensure inclusion of representatives of most vulnerable groups in VDMCs
» UDMCs will form an Emergency Response Team (ERT) for the provision of first aid and search and rescue operations
» Engage in networking with Government, line agencies and other stakeholders to handle unforeseen emergency situation at Taluka and district levels
» Pooling information for resource mobilization for disaster risk management activities and to tap financial and technical support from government and other organisations

» Dissemination of emergency information to VDMCs and issue early warnings and possible rescue points information
» To mobilize the community-at large and support VDMCs in implementation of their DRMPs
» Coordinate with District Disaster Management Authorities for joint actions in case of any emergencies
» Facilitate social, economic and physical rehabilitation of community; e.g. livelihoods, trauma counseling, reconstruction of houses and critical community infrastructures
» Coordinate with government and aid agencies to receive assistance in rehabilitation and sharing damage information with government and other agencies
» Ensure that risk reduction measures are integrated during the reconstruction and rehabilitation phase
» Evaluate the performance in terms of UDMC capacity and effectiveness to promote community safety and identify
» Develop strategies for future improvements to cope with disaster risks
» Develop a close liaison with individual level with Government champions in terms of information sharing, planning , emergency response and implementation of different needs identified in DRMPs under disaster scenario

Disaster Risk Management

- Capacity building for responses
- Emergency management including contingency planning

Response

- Risk assessment

Emergency Preparedness

Recovery and Reconstruc-tion

- Legislative frameworks and policies
- Support to national governments

Disaster Risk Reduction

- Build back better

Disaster Risk Management

Resilience

Prevention

Climate change adaptation

- Mitigation

Disaster Risk Management

Objectives

To introduce the basic concept of Disaster Risk Management (DRM) and will have an overview picture about DRM

Contents

» Disaster Risk Management
» Preparedness and Prevention
» Mitigation (Structural and Non-Structural)
» Emergency Response, Recovery and Rehabilitation
» Terms and Concepts

Methodology

» Power Point Presentations
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will two Hours with no break as it will be an introductory and interactive session

Required materials

» Power Point Presentation Handouts
» Background and Introductory Material on Disaster Risk Management

Expected outcome

The participants will have clear understanding about the basic concept of Disaster Risk Management (DRM) and will have an overview picture about DRM

Extra reading material and sources

» NDMA, (March 2007), National Disaster Risk Management Framework Pakistan
» USAID Tahafuz CBDRM Toolkit
» www.adrc.asia
» www.adpc.net
» www.ndma.org.pk

Disaster Risk Management

Disaster Risk Management is the systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster (http://www.unisdr.org).

DRM is a systematic application of management policies, procedures and practices to identify, analyze, assess, treat, monitor and evaluate risks. This involves decision making based on the examination of those risks, which includes hazard, vulnerability, and capacity of people and institutions (ADPC, DMC-30, 2003); Range of activities designed to maintain control over disaster and emergency situations and to provide a framework for helping at risk persons avoid or recover from the impact of the disaster. DRM is a collective term for all activities that contribute to increasing capacities and will lead to reducing immediate and long term vulnerabilities. DRM covers activities before, during and after a disaster. The key objectives of disaster risk management are:

» To increase capacities
» To reduce vulnerabilities
» To avoid or reduce human, physical and economic losses
» To speed up recovery
» To provide protection to refugees or displaced persons

Following are the major activities which are related to disaster risk management at different levels including communities, institutions and other stakeholders

Preparedness

» Some examples of preparedness activities are as following:

» Disaster preparedness training
» Hazard monitoring
» Early warning system
» Public awareness
» Evacuation to safe evacuation center
» Evacuation drill
» Stockpiling
» Contingency planning
» Emergency response training
» First aid training
» Organizing disaster volunteer teams
» Strengthening organization and institutional arrangements
» Logistics support such as communication equipment, warehouse, transportation
» Networking and coordination

Prevention

Some examples of prevention activities are:

» Safety regulations and measures (Land use Planning / Zoning)
» Agrarian reforms
» Peace building and conflict resolution

Mitigation (structural and non structural)

Some examples of structural measures are:

» Dikes
» Dams
» Sea wall
» Safe building construction
» Retrofitting/strengthening of buildings

Some examples of non-structural measures are:

» Risk assessment
» Risk reduction planning
» Safe building codes / land use planning
» Strengthening food and livelihood security
» Strengthening health and nutrition
» Reforestation
» Environmental protection and management
» Poverty reduction programs
» Micro-finance
» Insurance
» Enabling legislation
» Advocacy

Emergency Response

Activities for emergency response include the following:

» Search and rescue
» First aid
» Damage needs/capacity assessment
» Evacuation center management
» Medical services
» Relief
» Psychosocial services
» Safe drinking water
» Immediate repair of critical facilities such as electricity potable water supply, communication and connecting bridges and connecting roads.
» Coordination and networking

Recovery /Rehabilitation

Some examples of recovery activities are:

» Clearing of debris
» Repair of damaged houses and community facilities
» Relocation

» Livelihood assistance such as seeds and animal dispersal
» Health and sanitation such as provision of water pumps
» Training of community health workers/ herbal gardens,
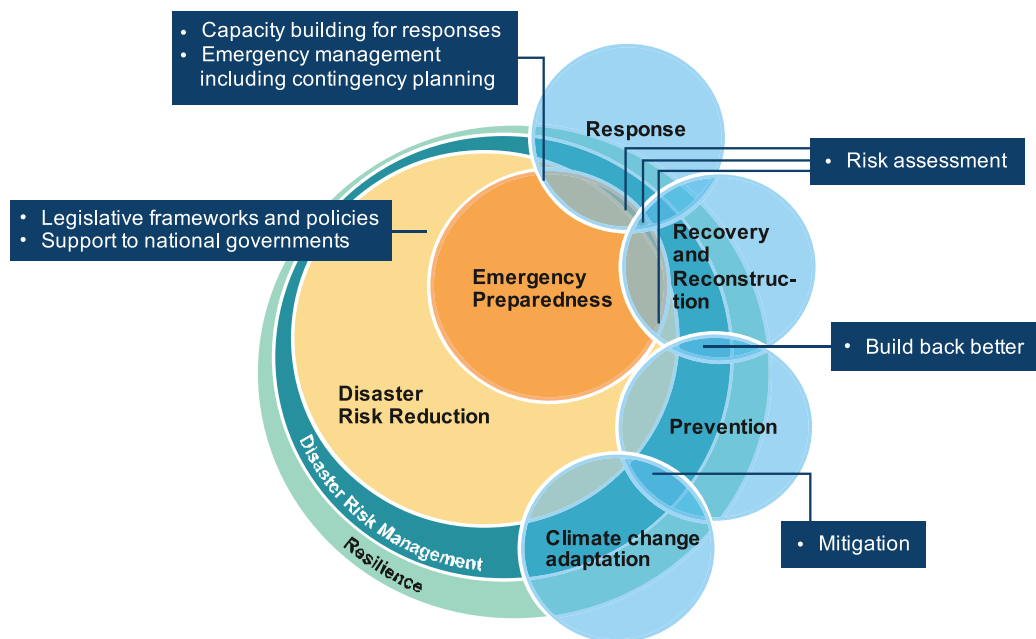» Reconstruction of structures and the economy especially after earthquake, landslide, flood, cyclone and drought

Terms and Concepts

1. Disaster

Disaster is a serious disruption of the functioning of a community or a society causing widespread human, material, economic or environmental losses, which exceed the ability of the affected community or society to cope, using its own resources. A disaster happens when a hazard impacts upon a vulnerable population and causes damage, casualties and disruption. An earthquake in an uninhabited desert cannot be considered a disaster, no matter how strong the intensities produced. An earthquake is only disastrous when it affects people, their property and activities. There are "natural" and "human-made" disasters. Natural disasters, or "Acts of God", according to conventional wisdom, are unpredictable and unpreventable. Many disasters, although triggered by natural events such as floods and earthquakes, are Increasingly man-made.

2. Hazard

A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. Hazard is an event or occurrence that has the potential to cause injuries to life and damage property and the environment. Examples

- Capacity building for responses
- Emergency management including contingency planning

- Legislative frameworks and policies
- Support to national governments

Response

- Risk assessment

Recovery and Reconstruction

Emergency Preparedness

- Build back better

Disaster Risk Reduction

Prevention

Disaster Risk Management

Resilience

Climate change adaptation

- Mitigation

of natural hazards are typhoons, tsunamis, earthquake and volcanic eruption exclusively. Landslides, floods, drought, fires can be described as socio- natural hazards since their causes are both natural and man-made. The distinction between natural and man-made hazards is becoming harder to define. For example, flooding may be increased through landfill, drainage or groundwater extraction; storm surge hazard may be worsened by the destruction of mangroves. Human-made hazards are associated with industries or energy generation facilities and include explosions, leakage of toxic waste, pollution, dam failures. War or civil strife is also included in this category. Some hazards can cause secondary hazards; e.g. an earthquake causing landslides, which dams a river and then causes flooding. A community may be exposed to multiple hazards as a result of secondary hazards.

3. Vulnerability

Vulnerability is a set of prevailing or consequential conditions, which adversely affect people's ability to prevent, mitigate, prepare for

and respond to hazardous events. These long-term factors affect a household or community's ability to absorb losses after disaster and to recover from the damage. Vulnerabilities precede disasters; contribute to their severity, impede disaster response, and may continue to exist long after a disaster has stuck.

We can categorize vulnerabilities into following three areas:

» Physical/Material Vulnerability. For example, poor people who have few physical and material resources usually suffer more from disasters than rich people. People who are poor often live on marginal lands; they don't have any savings or insurance; they are in poor health. These factors make them more vulnerable to disasters and mean that they have harder time surviving and recovering from a calamity than people who are better off economically.

» Social/organizational Vulnerability. People who have been marginalized in social, economic or political terms are vulnerable to suffering from disasters whereas groups,

which are well organized and have high commitment to their members, suffer less during disasters. Weakness in social and organizational areas may also cause disasters. For example, deep divisions can lead to conflict and war. Conflict over resources due to poverty can also lead to violence. A second area of vulnerability then, is the social and organizational aspect of a community.

» Attitudinal/Motivational Vulnerability. People who have low confidence in their ability to affect change or who have "lost heart" and feel defeated by events they can not control, are harder hit by disasters than those who have a sense of their ability to bring the changes they desire. Thus, the third area of vulnerability is the attitudinal and motivational aspect.

4. Capacity

Capacities are the assets, resources and skills available within a community, society or organization that can be used to reduce the risks or effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personal or collective attributes such as leadership and management. Capacities enable households and communities to cope with, withstand, prepare for, prevent, mitigate, or quickly recover from a disaster. People's capacity can also be categorized in the same categories as was done with vulnerabilities in the previous section.

Even the weakest in the community has capacities. The people whose houses or crops have been destroyed by a typhoon or flood can recover things from their homes and from their farms that can be recycled. Sometimes they have food in storage or crops that can be recovered from the fields or farm implements for planting again. Some family members have

skills, which enable them to find employment if they migrate, either temporarily or permanently.

In most disasters, people suffer their greatest losses in the physical and material realm. However, even when everything physical is destroyed, people still have their skills and knowledge; they have family and community organization. They have leaders and systems for making decisions. They have tribal loyalties or church affiliations. They have capacities in the social and organizational realm.

People also have positive attitudes and strong motivations such as the will to survive, love and concern for each other, bravery and willingness to help each other. These, too, are important capacities and form the basis for development just as much as the physical resources that people have.

5. Disaster Risk

Disaster Risk is the chance of likelihood of suffering harm and loss as a result of a hazardous event. It closely depends upon the exposure of something to a hazard. This can be expressed as

Risk = Chance (c)   x   Loss (L)
Disaster Risk = Hazard   x   Vulnerability
Capacity

The output of risk analysis is usually an estimation of the risk scenarios.

6. Elements at Risk

A societal element is said to be 'at risk' when it is exposed to hazards and is likely to be adversely affected by the impact of those hazards when they occur.

» People (their lives and health)
» Household and community structures,

facilities and services (houses, access roads, bridges, schools, hospitals, etc.)

» Livelihood and economic activities (jobs, equipment, crops, livestock, etc.)
» The natural environment is also an element at risk.

7. Disaster Risk Assessment

Disaster risk assessment is a participatory process to assess the hazards, vulnerabilities and capacities of a community. Through hazard assessment, the likelihood of the occurrence, the severity and duration of various hazards is determined. The vulnerability assessment identifies what elements are at risk and the causes of their vulnerable conditions. The households and groups that are most exposed to a hazard are identified. The assessment takes into account the physical, geographical, economic, social and political factors that make some people vulnerable to the dangers of a given hazard. In the capacity assessment, the community's resources and coping strategies are identified. The result of the disaster risk assessment is a ranking of the disaster risks of the community as basis of planning for risk reduction.

8. Disaster Risk Reduction

The reduction of disaster risk is the foundation of community-based disaster risk management. Disaster risk reduction includes activities that will minimize disaster-related losses of life, property or assets and environment. Such activities are also described as mitigation measures.

9. Disaster Preparedness

Disaster preparedness covers activities to enhance the ability to predict, respond to and cope with the effect of a disaster. It includes pre-cautionary activities by households, communities and organizations to react appropriately during and following the event.

10. Emergency Response

Emergency response covers measures required in search and rescue of survivors and in meeting basic survival needs for shelter, water, food and health care.

11. Recovery

Recovery is the process to fully restore the community to pre-disaster level of functioning or better than that. This refers to rehabilitation of livelihoods, restoration of social and economic activities and reconstruction of shelter and infrastructure.

12. Climate Change

Climate change is a change in the average weather that a given region experiences. Average weather includes temperatures, wind patterns and precipitation. Today, the climate change is happening at very fast speed. This is enhancing the occurrence of extreme hazard events.

13. Community

In the context of disaster risk management, a community can be defined as people living in one geographical area, who are exposed to common hazards due to their location. They may have common experience in responding to hazards and disasters. However, they may have different perceptions of and exposure to risk. Groups within the locality will have a stake in risk reduction measures (either in favor or against).in the context of Tahafuz project, the community is people living in the four project districts which are exposed to different common hazards especially flood.

Community Based Disaster Risk Management (CBDRM)

Community Based Disaster Risk Management (CBDRM)

Objectives

To introduce the basic concept of Community Based Disaster Risk Management (CBDRM) and will have an overview picture about CBDRM

Contents

» Introduction and Importance of CBDRM
» Nature and Indicators of Resilience Communities
» Essential feature and elements of CBDRM
» Principals of CBDRM

Methodology

» Power Point Presentations
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will two Hours with no break as it will be an introductory and interactive session

Required materials

» Power Point Presentation Handouts
» Background and Introductory Material on Disaster Risk Management

Expected outcome

The participants will have clear understanding about the basic concept of Community Based Disaster Risk Management (CBDRM) and will have an overview picture about CBDRM

Extra reading material and sources

» USAID Tahafuz CBDRM Toolkit
» Handouts
» www.adrc.asia
» www.adpc.net
» www.ndma.org.pk

History and Introduction of CBDRM

Community-based disaster risk management (CBDRM) is a process in which at-risk communities are actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risks in order to reduce their vulnerabilities and enhance their capacities. This means that people are at the heart of decision making and implementation of disaster risk management activities. The involvement of most vulnerable social groups is considered as paramount in this process, while the support of the least vulnerable groups to them is necessary for successful implementation

(Source; Framework for Community-Based Disaster Risk Management in South East Asia by Shesh Kanta   Kafle ADPC)

Traditional approaches to community development, poverty reduction and disaster management focus on practices of government and non-governmental organizations providing direct goods, services, infrastructure to the poor and target communities. While that type of support is necessary, it is not enough to build the success, effectiveness and sustainability of development work, not to mention empowerment of targeted populations. Therefore, communities and development practitioners always strive to seek new approaches for sustainable development. The approach promoted under Community-based Disaster Risk Management (CBDRM) is to build people's capacity of coping with disaster risks and reducing their vulnerability thereby developing safer and more resilient communities. These approaches have been recognized and widely practiced by various community groups, national and international organizations and government departments for over two decades in Asia. In Pakistan, CBDRM was first introduced by some international NGOs in 2005 and has soon become popular for many disaster risk reduction projects and programs implemented by NGOs and government organizations. Especially, in the context of climate change worsening the complicated nature and severity of disasters, it is very critical for communities and development organizations to adopt innovative approaches like CBDRM.

CBDRM is a process of disaster risk management in which at risk communities are actively engaged in the identification, analysis, treatment, monitoring and evaluation of disaster risks in order to reduce their vulnerabilities and enhance their capacities[5].

CBDRM builds safer communities, in which local people, particularly the most vulnerable, are aware of disaster risks and have capacity to protect themselves, families, properties, their life and production from negative effects of hazards. As a result, risks are reduced and hazards do not escalate into disasters.

This means that the people are at the heart of decision making and implementation of disaster risk management activities. The involvement of the most vulnerable is paramount and the support of the least vulnerable is necessary for successful implementation.[6] In CBDRM, local and national governments are involved and supportive CBDRM approach is people and development oriented. It views disasters as a question of people's vulnerability. It empowers people to address the root causes of vulnerabilities by transforming social, economic and political structures that generate inequality and underdevelopment[7].

CBDRM approach covers prevention and mitigation, preparedness, emergency response

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5:   ADPC 2003
6:   Abarquez and Murshed, 2004
7:   Shaw and Kenji 2004
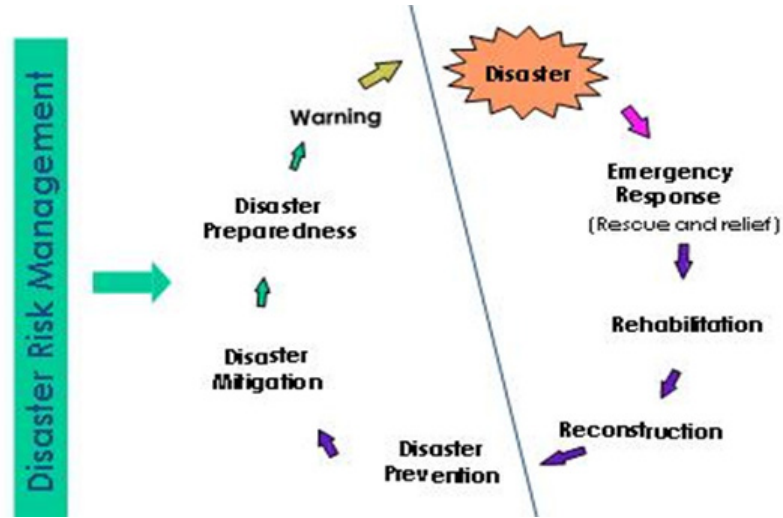
and recovery as shown in the following figure. If we look at the following diagram more closely, it is clear that certain steps need to be undertaken after any disaster and these include the Emergency Response that starts immediately and followed by Rehabilitation and Reconstruction. In Pakistan, we have seen that depending on the scale of natural disasters, the emergency response can be for a period ranging from few days to few months. And the Rehabilitation process usually takes about 6 to 18 months. The ERR phase is comparatively easy to go through in areas where preparedness level of local communities and other stakeholders is high and they are aware of the steps to be undertaken in this phase. This is one of the main reason why CBDRM Tahafuz project has been initiated, to increase the preparedness level of the local communities and other key stakeholders. The Tahafuz Project mainly focuses on the levels shown on the left hand side of the following figure, these include the Prevention, Mitigation and Preparedness.

The key aspect of community involvement is the sustainability of community level initiatives for disaster reduction. External agencies, like government, non-government organizations may initiate and implement community level programs before and after disasters. However, such initiatives many times discontinue once the external support is ended. There can be many reasons behind this lack of sustainability, some of which may be the lack of partnership, participation, empowerment and ownership of local communities. Unless the disaster risk management efforts are sustainable at individual and community level, it would be difficult to reduce the vulnerability and losses. It is therefore important to involve people in decision making on policies and strategies that should be followed for their development in the community.

The importance of involving members of targeted communities and their knowledge in the actions and discussions around risk reduction has become widely accepted. It is now time to implement programs that are truly participatory and that work towards fundamental empowerment of people and communities who are most at risk. the approach of the community based DRM is 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.

All communities and villages have some vitally important assets to deal with disasters. These may include knowledge of disaster warning signs, locally safe and vulnerable areas, experience of past disasters, methods of survival and social relations that are often vitally important in coping with crisis. Local communities have an active part to play before and after disasters because:

» A good state of disaster preparedness may reduce its impacts
» More number of lives can be saved during the first few hours after disaster has occurred through local response teams, before help arrives from elsewhere.
» The numerous problems of survival and health resulting from a disaster are dealt with more efficiently, if the community is active and well organized (WHO 1989).

There is growing evidence to show that most top-down disaster risk management and responses programs fail to address specific local needs of vulnerable communities, ignore the potential of local resources and capacities and may in some cases even increase people's vulnerability. The relevance of the community-based disaster management approach is increasing due to changing patterns of disaster occurrence and loss. While occasional large catastrophes continue to occur, it has been documented that rapid increase in disaster occurrence and loss is due to the exponential increase in the occurrence of small to medium-scale disasters associated with socio- natural hazards such as landslide, flood, drought and fire.

Importance of CBDRM

A common concept of community is that a community is harmonious, having a harmony of interest and aspirations, and bound by common

Process of CBDRM

» Initiating the process - selecting the community or community asks for assistance how to have CBDM; building rapport.
» Community profiling - initial understanding of the community situation and an orientation on CBDRM.
» Community risk assessment - hazards, vulnerabilities and capacities assessment and consideration of people's different perceptions of risks.
» Community disaster (risk) management plan - appropriate and do-able measures before, during and after the disaster; focus on prevention, mitigation and preparedness measures;
» Short, medium, and long-term disaster management activities.
» Organizing & strengthening community DRM organization - ensures implementation of Community Disaster Management Plan.
» Community managed implementation- implementation of short, medium, and long-term measures to reduce vulnerability and increase capacity; structural and non-structural measures

values and objectives. This definition implies that a community is homogeneous. In reality, a community can be socially differentiated and diverse. Gender, class, caste, wealth, age, ethnicity, religion, language, and other aspects divide and crosscut the community. Beliefs, interests, and values of community members may conflict. Therefore a community need not be homogenous. For our purpose in Community-Based Disaster Risk Management (CBDRM), a community can be taken as a group that may share one or more things in common such as living in the same environment, similar

disaster risk exposure, or having been affected by a disaster. Common problems, concerns and hopes regarding disaster risks may also be shared. However, people living in a community have different vulnerabilities and capacities, for example men and women. Some may be more vulnerable or more capable than others

"Preventive measures are most effective when they involve participation at all levels, from the local community through the national government to the regional and international level." (IDNDR Conference Papers, Japan, 1994).

Community involvement is essential in the development process because nobody can understand local opportunities and constraints better than the local communities themselves who therefore need to be involved in the identification and resolution of disaster vulnerability issues. And also nobody is more interested in understanding local affairs than the community whose survival and well-being is at stake. Therefore the information should be generated in a manner and language that is understood by the community. There is growing evidence to show that most top-down disaster risk management and response programs fail to address specific local needs of vulnerable communities, ignore the potential of local resources and capacities, and may insome cases even increase people's vulnerability. As a result, a broad consensus has been reached among disaster risk management practitioners to put more emphasis on community-based disaster risk management programs. This means the vulnerable people themselves will be involved in planning and implementing disaster risk management measures along with local, provincial, and national entities through partnership.

The aim of CBDRM is to reduce vulnerabilities and to strengthen peoples' capacity to cope

with the disaster risks they face. The direct involvement of the community in undertaking local level risk reduction measures is a must. Some authors differentiate between community participation and Community involvement. For our purposes in CBDRM, community.

Involvement and community participation are used interchangeably, which means that the community takes responsibility for all stages of the program including both planning and implementation. Experiences in the implementation of CBDRM point to the following essential features:

» *Centrality of the role of community in disaster risk management.* The focus of attention in disaster risk management is the local community. The CBDRM approach recognizes that the local people are capable of initiating and sustaining their own development. Responsibility for change rests with those living in the local community.

» *Disaster risk reduction is the aim.* The main strategy is to enhance capacities and resources of most vulnerable groups and to reduce their vulnerability in order to avoid the occurrence of disasters in future.

» *Recognition of the link between disaster risk management and the development process.* CBDRM should lead to general improvement in people's quality of life and the natural environment. The approach assumes that addressing the root causes of disasters, e.g. poverty, discrimination and marginalization, poor governance and bad political and economic management, would contribute towards the overall improvement in the quality of life and environment.

Core principles of CBDRM

» The centrality of the role of the community in CBDRM
» Priority should be given to the most vulnerable people.
» Recognition of different perceptions of risks, vulnerabilities and capacities.
» Application of multi-sectoral and multi-disciplinary approaches.

» Integration of disaster risk management into local development processes.
» CBDRM as an evolving and dynamic framework.
» Disaster risk reduction is the highest aim.
» CBDRM takes into account global emerging issues, such as climate change, and epidemics.

» ***Community is the key resource in disaster risk management.*** The community is the key actor as well as the primary beneficiary of the disaster risk management process.

» ***Application of multi-sectoral and multi-disciplinary approaches.*** CBDRM brings together the many local community and even national stakeholders for disaster risk management to expand its resource base.

» ***CBDRM as an evolving and dynamic framework.*** Lessons learned from practice continue to build into the theory of CBDRM. The sharing of experiences, methodologies and tools by communities and CBDRM practitioners continues to enrich practice.

» ***CBDRM recognizes that different people have different perceptions of risk.*** Specifically, men and women who may have different understanding and experience in coping with risk also may have a different perception of risk and therefore may have different views on how to reduce the risks. It is important to recognize these differences.

» ***Various community members and groups in the community have different vulnerabilities and capacities.*** Different individuals, families and groups in the community have

different vulnerabilities and capacities. These are determined by age, gender, class, occupation (sources of livelihoods), ethnicity, language, religion and physical location.

Creating resilient people in resilient environment

The objective of CBDRM is to create resilient people living within resilient communities within resilient environments within resilient countries. This is achieved by reducing the:

» Probability of failure through risk reduction measures;
» Consequences of failure, in terms of fewer lives lost, fewer injuries and reduced direct and indirect damage;
» Time needed for recovery; and the Patterns of vulnerability that can develop during the process of reconstruction.

The Nature of Resilient Communities; A resilient community is one that has certain capacities in three phases:

Phase 1: The ability to absorb the shocks of hazard impact, so that they do not become disasters (thus to reduce the probability of failure);

Phase 2: The capacity to bounce back

during and after disaster (thus to reduce the consequences of failure);

Phase 3: The opportunity for change and adaptation following a disaster (thus to reduce the time needed for recovery as well as patterns of vulnerability).

Phase 1: The ability to absorb the shocks of hazard impact (Pre-Disaster)

Ways have to be found to ensure that a community is strengthened, becoming less fragile and less susceptible to disaster impact. Vulnerability is intimately related to social processes in disaster prone areas and is usually related to the fragility, susceptibility or lack of resilience of the population when faced with different hazards. In addition, ways have to be found to assist a community to survive despite receiving the impact of severe natural hazards. It is important to note the range of elements of a society needs to withstand: "Local resiliency with regard to disasters means that a locale is able to withstand an extreme natural event without suffering devastating losses, damage, diminished productivity, or quality of life without a large amount of assistance from outside the community".

Characteristics of resilience before a disaster

Societies anticipate and reduce disaster impact by adopting many approaches:

» using traditional experience and knowledge (coping mechanisms);
» preparing for any possible hazard by having emergency kits or supplies, (buffer
» stocks) ready for the event;
» having family or community disaster plans as well as adaptive behavior,

(strengthening houses, providing emergency protection of doors and windows from high winds, etc.);
» organizing training courses in first aid, etc.;
» temporary evacuation before an impending flood or cyclone of volcanic eruption;
» permanent relocation of the community away from unsafe sites

Phase 2: The capacity to bounce back during and after disaster (Post-disaster, immediate relief phase)

Specific factors need to be identified that enable societies to become resilient: "People continually adapt to crisis, coming up with creative solutions. They prioritize livelihoods and household assets rather than the quick fix. Supporting resilience means more than delivering relief or mitigating individual hazards. Local knowledge, skills, determination, livelihoods, cooperation, access to resources and representation are all vital factors enabling people to bounce back from disaster".

Characteristics of resilience during and after a disaster

Themes need to be addressed such as integrating recovery plans to link social, physical and economic recovery; following a disaster recovery plan; recognizing the importance of securing a prepared community who know what to do to recover; and taking actions to reduce future vulnerability. Societies cope during and after a disaster by:

» drawing on the support of their community;
» taking stock to determine what they have and what or who is missing;
» restoring communications to facilitate aid distribution;
» mitigating future risks (both psychological

as well as material threats);

» recognizing that physical recovery work can combine bereavement therapy with a possible income source; and

» regarding the entire experience as a learning process.

Phase 3: The opportunity for change and adaptation following a disaster (Post-Disaster, longer-term recovery phase)

The opportunity to change, adjust and adapt following a disaster is to find creative ways to increase the resilience of everyone and everything. This will therefore include all actors, communities and their leaders, social systems, local administration, disaster planning and diversified livelihoods. The demanding challenge is to build them into the recovery process by learning the hard lessons gained from failure: "The capacity to adapt existing resources and skills to new systems and operating conditions".

Characteristics of resilience after a disaster

The following concerns need to be addressed during the recovery process, together they will build far more resilient communities:

» devise a community recovery plan that links social, physical, economic and

» environmental recovery;

» regard physical recovery work as bereavement therapy and a possible income

» source and the entire reconstruction experience as a learning process;

» draw on support of their community by being adaptable, flexible and patient;

» where possible ensure that there is local purchase or reconstruction goods using

» local labor to re-vitalize the damaged local

economy;

» recognize the value of a prepared community who know what to do to recover;

» take actions to reduce future vulnerability as the recovery proceeds.

Indicators of a Resilient Community

Resilience is a moving target, and realistically it may not be possible for communities to achieve absolute resilience against hazards or other risk factors. However, communities can still achieve certain level of development, and they can establish institutional arrangements that would enhance their resilience. In order to assess whether a community has achieved a certain level of resilience, we will need to establish some indicators, which if existed would mean that the community had achieved a minimum level of resiliency. A set of indicators is given as below. This set of indicators is by no means comprehensive. You might like to identify more indicators relevant to your local area and community.

» A Community organization; VDMC/UDMC
» A DRR and DP plan;
» A Community Early Warning System;
» Trained manpower: risk assessment, search and rescue, medical first aid, - relief distribution,
» Masons for safer house construction, fire fighting
» Physical Connectivity: roads, electricity, telephone, clinics
» Relational connectivity with local authorities, NGOs, etc
» Knowledge of risks and risk reduction actions
» A Community Disaster Reduction Fund to implement risk reduction activities
» Safer House to withstand local hazards
» Safe source/s of livelihoods

Essential Features and Elements of CBDRM

Essential features and elements of the bottom-up approach include the following:

» Local people are capable of initiating and sustaining their own community development While role of local government, private sector and NGOs is important, the primary requirement for grassroots development is with local leadership
» People's participation – community as the main actor and propeller; directly shares the
» benefits of risk reduction and development
» Priority for the most vulnerable - children, women, elderly, farmers and fisher folk, 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
» A successful bottom-up strategy will include broad-based local participation in comprehensive planning and decision-making activities that promote motivation
» Educational opportunities should correspond to identified local needs
» Emphasis is on improving the utilization and management of local resources
» Responsible utilization of outside financial assistance is required
» Replication of a community's success is a powerful factor in continuing local initiative

» Responsibility for change rests with those living in the local community
» Various community members and groups in the community may have different perceptions of risk and varying vulnerabilities

Chapter 5

Community Based Disaster Risk Management Process

Chapter 5

Community Based Disaster Risk Management Process

Objectives

To make participant understand about different concepts and approaches regarding Community Based Disaster Risk Management (CBDRM)in reference to the USAID Tahafuz CBDRM Project and able to understand the process as well.

Contents

» CBDRM Tahafuz Process
» Outcomes of CBDRM Tahafuz Process

Methodology

» Power Point Presentations
» Group Activity
» Continuous interaction with participants
» Video Documentary
» Taking feedback from the participants

Duration

Duration will four Hours; including a short break and an energizer

Required materials

» Power Point Presentation Handouts
» Material on Community Based Disaster Risk Management

Expected outcome

The participants will have clear understanding about the basic concepts and approaches of Community Based Disaster Risk Management in reference to the project Tahafuz Project.

Extra reading material and sources

» Project Documents
» USAID Tahafuz CBDRM Toolkit,
» Handouts

CBDRM Tahafuz Process

In the CBDRM Tahafuz process, a thorough village level assessment of the vulnerable population in respective of hazard exposure and analysis of their vulnerabilities as well as capacities is the basis for activities, projects and programs to reduce disaster risks will be undertaken. The local community will be involved in the process of assessment, planning and implementation so that the community's real needs and resources are considered. There is more likelihood that problems will be addressed with appropriate interventions, through this process. The CBDRM process will be done through seven sequential stages, which will be executed before the occurrence of a disaster, or after one has happened, to reduce future risks. Each stage grows out of the preceding stage and leads to further action. Together, the sequence can build up a planning and implementation system, which will then become a powerful disaster risk management tool. The following are the seven steps in the disaster risk management process:

1. Selecting the Community/ Village

The selection of communities for implementation of CBDRM activities depends upon a number of factors and criteria, but most importantly the risk exposure of the particular community. Only the most vulnerable communities/villages will be selected on the basis of their vulnerability criteria as mentioned below for the CBDRM activities;

» Severity of community's exposure to risk (most vulnerable community)
» Number of people to benefit from Disaster Risk Reduction (DRR) activities
» Readiness of community to engage in Disaster Risk Management

The main goal of CBDRM is to transform at-risk communities to disaster resilient communities. (Victoria 2002), the general CBDRM process includes following steps

1. Selecting the Community/ Village.
2. Rapport Building with and Understanding of the Community.
3. Participatory Disaster Risk Assessment (PDRA).
4. Building and Training a Disaster Risk Management Committee (DRMC).
5. Community-Managed Implementation.
6. Participatory Monitoring and Evaluation

» Poverty status of the community
» Accessibility
» Accessibility of the community
» Security of staff

Selection of community/villages for inclusion in the Tahafuz CBDRM project will be undertaken in coordination with the District/ Taluka (Sub-district) administration.

2. Rapport Building with and Understanding of the Community

Through this process the relationship and trust with the local people will be done. As relationship is established, general position of the community in terms of social, economic, political and economic aspects is understood. Deeper appreciation of the community dynamics will happen later, when participatory risk assessment is understanding.

3. Participatory Disaster Risk Assessment (PDRA)

This is a diagnostic process to identify the risks that the community faces and how people overcome those risks. The process

involves hazard assessment, vulnerability assessment and capacity assessment. In doing the assessments, people's perception of risk is considered. This follows after the analysis of the results of participatory riskassessment. People themselves identify risk reduction measuresthat will reduce vulnerabilities and enhance capacities. Theserisk reduction measures are then translated into a communitydisaster risk management plan.

4. Building and Training a Disaster Risk Management Committee (DRMC)

Disaster risks are better managed at village level through VDMCs that will ensure that risks are reduced through implementation of the plan. Therefore it is imperative to foster VDMC at village level and UDMC at union council level. Training the DMCs leaders and membersof the organization to build their capacity is important is very important for CBDRM.

5. Community-Managed Implementation

The VDMC will lead to the implementation of the community plan and motivate the other members of the community to support the activities in implementing their plans.

6. Participatory Monitoring and Evaluation

This is a communication system and through this system information flows amongst all the people involved in the project: the community, the implementing staff and the support agency, concerned government agencies and donors. This would be done through process review and midterm and final evaluation of

the project against the project outputs. In addition project workshops at district level by involving DMCs members, District Disaster Management Authorities, local NGOs and civil defense volunteers will further strengthened the monitoring process.

Outcome of CBDRM Process

The CBDRM process should lead to progressive improvements in public safety and community disaster resilience. It should contribute to equitable and sustainable community development in the long term.

Following are the key output indicators of CBDRM:

» Community Based Organization (VDMC/UDMC)
» Community Disaster Risk Reduction Fund
» Community Hazard, Vulnerability, Capacity Map (HVCM)
» Community Disaster Risk Management Plan.
» Community Drills System
» Community Learning System
» Community Early Warning System

The further details of each output indicator are as below;

Community-Based Organization
In case of Tahafuz project this would be village disaster management committee and union disaster management committee the aim of the first outcome is to establish, strengthen and sustain an organizational mechanism at community level to implement CBDRM activities. This CBO will be comprised upon local residents in the community.

Community Disaster Risk Reduction Fund
The aim of this second outcome is to ensure

availability of resources for the implementation of community disaster risk reduction and preparedness measures.

Community Hazard, Vulnerability, Capacity Map (HVCM)

To form the basis for community based disaster risk reduction and community learning.

Community Disaster Risk Management Plan

To ensure collective action by community for disaster risk reduction through mobilization of local resources.

Community Drills System

The aim of this outcome is to ensure the readiness of communities for disaster response.

Community Learning System

The aim of this outcome is to enhance the understanding of individuals, families and communities about hazards, disasters, vulnerabilities, risk reduction and preparedness.

Community Early Warning System

The aim of this outcome is to contribute to the safety of community through facilitating precautionary measures.

Participatory Risk Assessment
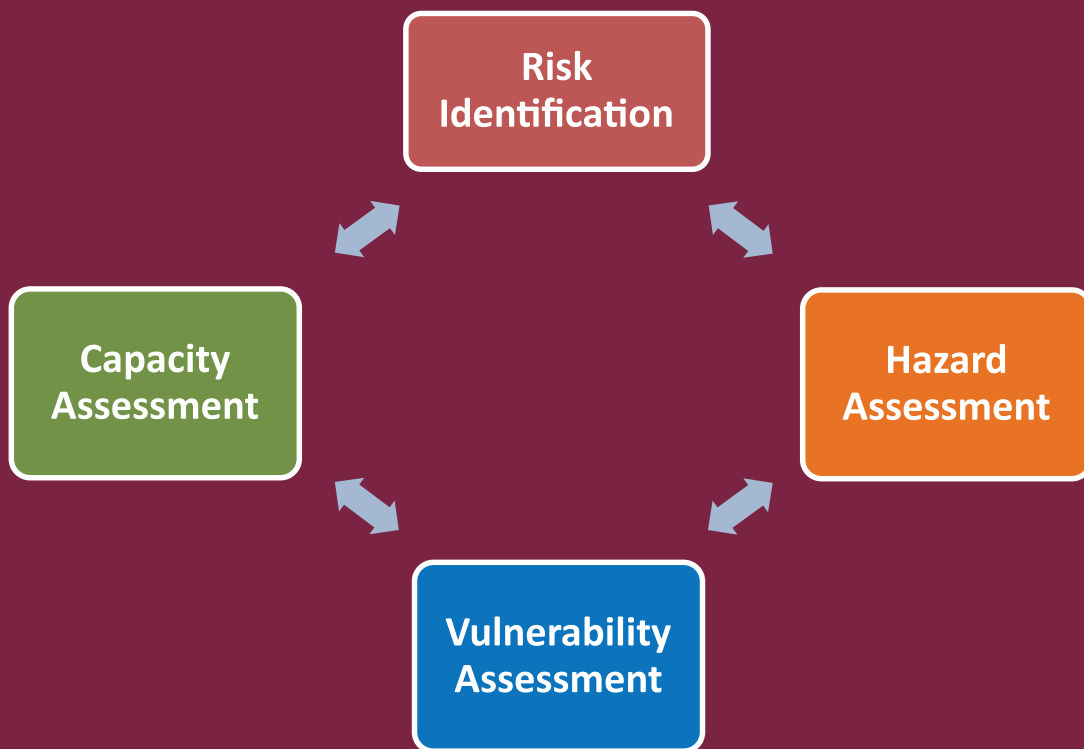
Participatory Risk Assessment

Objectives

To introduce the basic concepts and approaches of Participator Risk Assessment at Village and Union Council level

Contents

» Introduction to Participatory Risk Assessment
» Risk Identification
» Hazard Vulnerability and Capacity Assessment by VDMC and UDMC
» Risk Mapping by VDMC/UDMC
» Historical Profile of Disaster
» Preparation of Seasonal Calendar
» Vulnerability Assessment by VDMC/UDMC
» Capacity Assessment by VDMC/UDMC

Methodology

» Power Point Presentations
» Group Activities on Risk Mapping, Preparation of Seasonal Calendar etc
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will be five Hours; which will include a lunch break and energizers

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to Risk Assessment/ Mapping etc

Expected outcome

The participants will have clear understanding about the basic concepts and approaches related to Participatory Risk Assessment.

Extra reading material and sources

» USAID Tahafuz CBDRM Toolkit,
» Handouts
» www.adpc.net
» www.ndma.org.pk

Introduction to Participatory Risk Assessment

Disaster Risk and its Component

The "Risk" is probability of something negative happening in the future which will cause suffering, harm and loss, In the context of disaster , "risk" is defined as the expectation value of losses (deaths, injuries, property, etc.) that would be caused by a hazard. Disaster risk can be seen as a function of the hazard, exposure and vulnerability as "Disaster Risk = function (Hazard, Exposure, Vulnerability"). (Source; The DRM –Good practices, ADRC) The risk assessment is a methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing vulnerabilities that together could harm exposed people, property, services, livelihoods and the environment.
(Source; www.disasterriskreduction.net).

The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or a society over some specified future time period is known as disaster risk, this could be defined as;

Disaster Risk =
(Hazard x Vulnerability) / Capacity

(Source; www.unisdr.org)

The components of the disaster risk assessment are

» Hazard Assessment
» Vulnerability Assessment
» Capacity Assessment

Through hazard assessment, the likelihood of the occurrence, the severity and duration of various hazards is determined. The

vulnerability assessment identifies what elements are at risk and the causes of their vulnerable conditions. The households and groups that are most exposed to a hazard are identified. The assessment takes into account the physical, geographical, economic, social and political factors that make some people vulnerable to the dangers of a given hazard. In the capacity assessment, the community's resources and coping strategies are identified. The result of the disaster risk assessment is a ranking of the disaster risks of the community as basis of planning for risk reduction. There are five steps in disaster risk assessment are:

Step 1: Preparation
Step 2: Hazard assessment
Step 3: Vulnerability and capacity assessment
Step 4: Dynamic pressures and underlying causes
Step 5: Risk reduction planning

(Source; www.adpc.net, www.disasterriskreduction.com)

Participatory Risk Assessment

The participatory risk assessment is a participatory process of determining the nature, scope and magnitude of negative effects of hazards to the community and its households within an anticipated time period. It determines the likely negative effects on

'elements at risk' (people; household and community structures, facilities like schools and hospitals; livelihood and economic activities, jobs, equipment, crops, livestock etc; lifelines, access roads and bridges) and why particular households and groups are vulnerable to specific hazards and others are not? The coping mechanisms and the resources present in the community are also identified. *(Source; www. adpc.net)*

Participation of community members is an essential component of community risk assessment, which determines the methodologies and tools to be used. CRA combines both scientific and empirical data concerning known hazards and other possible threats to the community. Although indigenous knowledge is vital, but scientific data is especially important in a situation when the hazard has not yet been experienced by the community.

» Community Risk Assessment provides disaster specific baseline data that can be used in development planning purposes.
» Community Risk Assessment provides information that can be used for 'intelligent and informed estimates' to draft emergency appeals. It provides the baseline data that is useful in doing the 'damage, needs, capacities assessment' of the community for emergency response purposes.

Community Risk Assessment expresses the possibility of suffering from a hazard that can cause death, injury, disease, economic loss or environmental damage. Community Risk Assessment has three interrelated steps as follows:

» **Risk Identification:** includes the hazard and vulnerability assessments. Hazard
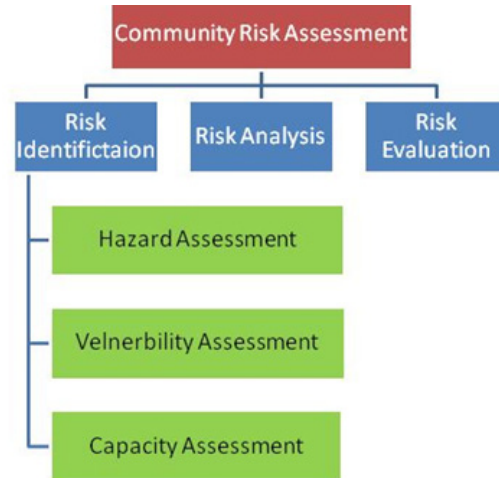
assessment includes identification of the nature and behavior of the hazards the community is exposed to. Sources of threat as well as level of likelihood of its occurrence are also identified. The vulnerability assessment identifies what elements are at risk and why they are at risk (the reasons for their vulnerability). The capacities of the community are also identified in order to determine their ability to deal with the potential risks.

» **Risk analysis** aims to develop various risk scenarios and establish the degree of risk and its nature. This includes the estimation of potential damages and losses that might be experienced as a result of the occurrence of a hazard. This determines consequences and likelihood and hence the level of risk. Risk analysis should consider the range of potential losses and damages and how these could occur. Assessment of capacities and resources also fall in this category. Capacity assessment identifies the people's coping strategies; resources available for preparedness, mitigation and emergency response and who has access to and control over these resources. Risk mapping through GIS or manually, is an approach to analyze risks at local level.

» **Risk prioritization / Evaluation:** involves the comparison of risk against the pre-established elements or criteria. Most important risks from the perspective of vulnerable people are identified in this process. This also enables decision making about the potential strategies that should be followed for dealing with different kind of risks.

Risk Identification

Risk can be identified using following assessments;

» Hazard assessment,
» Vulnerability assessment and
» Capacity Assessment

Hazard, vulnerability and Capacity assessment also know as components of risk assessment, following are the details of each component;
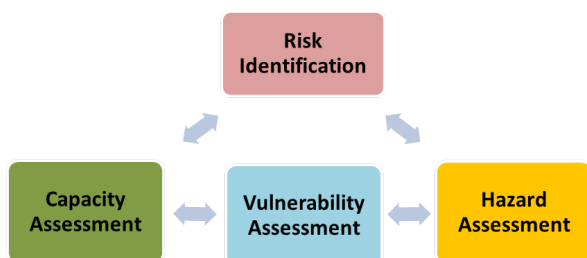
A) Hazard Assessment

The process of studying the nature of hazards determining its essential features including degree of severity, duration, extent of the impact area called Hazard Assessment. Hazard assessment is concerned with the
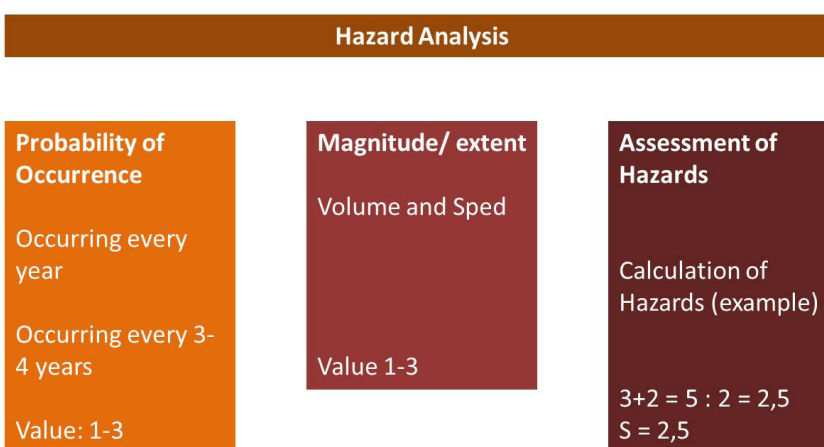
A hazard is also defined as a potentially damaging physical event, phenomenon or human activity that may cause loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards include latent conditions representing future threats and can have different origins: natural (such as earthquakes) or induced by human processes (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects.

properties of the hazards or threats. *(Source; UNDP-DRR).*

Hazard analysis/Assessment is the process of estimating for defined areas, the probabilities of the occurrence of potentially damaging phenomenon of given magnitude within a specified period of time. Hazard analysis consists of assessing the frequency (in the past) or probability (in the future) of a hazard and the magnitude (or extent) of it such as flood levels, duration of dry days in case of drought, velocity and speed of storms, height of tidal waves, and so on.

For undertaking a hazard analysis, possible sources of information include national and local government and related institutions, meteorological institutions, disaster-related

Hazard Analysis		
Probability of Occurrence Occurring every year Occurring every 3-4 years Value: 1-3	**Magnitude/ extent** Volume and Sped Value 1-3	**Assessment of Hazards** Calculation of Hazards (example) 3+2 = 5 : 2 = 2,5 S = 2,5

institutions (e.g. disaster management committees), NGOs, etc. Other important sources are the local people who often know very small patches of land that have been differently affected by previous hazards. Discussions with village representatives and elders is useful, as well as walking around together in the village to record and map past hazards and damages. Looking at climate change, it is most likely that hazards will increase, both in terms of probability and magnitude. However, scientific forecast does not yet produce the precise information needed to do a hazard map on a local level. However, there is almost unanimous agreement by scientists that climate change will primarily show its negative impact in areas that in the past frequently have been affected by weather-related disasters. For an analysis of hazards, information must include location, **probability of occurrence** (frequency), and **magnitude/extent.**

Probability of occurrence (frequency) describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs, on average. For instance, flood frequency analysis uses historical records of peak flows to produce guidance about the expected behavior of future flooding. To be able to analyze the frequency of hazards, the question to ask is "How often do floods occur in the given area?"

Magnitude/Extent describes the strength or force of an event. Only occurrences exceeding some defined level of magnitude are considered extreme, disastrous, or even hazardous. In the case of floods, for example, magnitude is often described as the maximum height of floodwaters above average sea level, flood stage, or simply above ground. For seismic events, magnitude describes the total energy released by the earthquake; for a rock

> **Hazard assessment is the first step towards identifying risk?**
> » For disaster risk assessment and risk reduction planning at any level, hazard assessment is a fundamental exercise to undertake.
> » It helps to identify the prevailing hazards in a particular location, their behavior in terms of frequency, intensity and duration, and the underlying causes and sources that contribute to creating hazardous phenomena".

fall it is the volume of material expected from a rock fall.

The formula for calculating the hazard risk value is:

[Probability (Frequency) + Magnitude (Extent)] / 2 = Hazard risk value

Types and Classification of Hazards; Hazards are generally of three types, physical hazards, chemical hazards and biological hazards and can be further **classified** as following:

» Natural Hazards
  › Hydro Meteorological Hazards
  › Geological Hazards
  › Biological Hazards

» Environmental Hazards
» Technological Hazards

To understand the nature and behavior of hazards we need to identify:

» **Force:** wind, water (rain, flood, overflow, run-off, flashflood, tidal wave, storm surge, epidemic), land (slides, deposits by river, lahar, mudflow), fire (forest fire, settlement fire), seismic (earthquake, tsunami, liquefaction), conflicts (civil war, insurgency,

other actions leading to displacement and refugees), industrial/technological (pollution, radio-activity, explosions), other human-related (famine, drought, pests, etc.)

» **Warning signs and signals:** scientific and indigenous indicators that a hazard is likely to happen.
» **Forewarning:** time between warning and impact
» **Speed of onset:** rapidity of arrival and impact. We can distinguish between hazards that occur without almost any warning (earthquake), and hazards that can be predicted three to four days in advance (typhoon) to very slow-onset hazards like drought and famine.
» **Frequency:** does hazard occur seasonally, yearly, once every 10 years, once in a lifetime, etc?
» **When:** does hazard occur at a particular time of the year (wet or dry season; in November to December?
» **Duration:** how long is hazard felt (earthquake and aftershocks; days/weeks/months that area is flooded; length of period of military operations)?

The Hazard Matrix helps us to systematize information regarding the properties of the community's hazard exposure.

In identifying and assessing the characteristics of the hazards, which threaten the community, the following points have to be considered:

» Some hazards also cause secondary hazards. Example, earthquakes cause landslides; drought might cause epidemics and pest infestation; floods might carry pollution and cause epidemics; etc. In such instances, one should consider the main force of primary hazard.
» Although hazard assessment is based on past hazard patterns, we should not forget to look at possible disaster threats that are new for the community and are likely to happen. There are an increasing number of threats due to changes in natural, economical, social and political trends. Threats unnoticed before, simply because nothing was exposed to them, can easily turn into major problems that no one had predicted (ethnic conflicts, industrial hazards).
» We should also consider the various intensities, which each hazard may have.
» The rare the occurrence of a hazard in a given area, the less historical information there is to work with. Therefore, other sources should be consulted to provide more reliable information about their prediction and possible behavior.

The important information which required while doing hazard assessment is;

» Understanding of factors that create, result in a hazard
» Historic reports on past incidence of

Hazard Matrix

Hazard type	Force	Warning signs	Fore warning	Speed of onset	Frequency	When	Duration
Flood							
Drought							
earthquake							
civil war							
landslides							
Pollution							
epidemic							

hazards, in particular the location, frequency, severity, duration of the events

» Scientifics studies/Maps, long term monitoring

Hazard mapping is one of the tools used in hazard analysis. The hazard risk values of different areas are indicated on hazard maps. Thus, hazard mapping is the process of establishing geographically where and to what extent particular phenomenon is likely to pose a threat to people, property, infrastructure and economic activities. Hazard maps give qualitative and quantitative information about hazards by presenting the expected danger or maximum level of danger of the event, such as slopes at risk of landslides. There is a variety of methodologies for creating hazard maps. Assuming that it would give a fairly good indication of what is likely to happen in the future hazard assessment can be based on past disasters. For example, a simple mapping of local experience can be achieved using local knowledge. The living memories of community elders can be valuable input into the disaster history of a given community. Similarly, reports and written evidence compiled on historic

events can form the basis for predicting future disasters. This approach is particularly useful for recurring disasters such as floods, cyclones, and so on.

However, this methodology cannot be used for specific types of hazards like earthquakes and Landslides. Where a landslide has happened it is quite unlikely that another one will happen again on the same spot. Therefore, a second methodology for hazard assessment would be to predict future disasters by scientific methods. For example, soil analysis would be required to predict the probability and magnitude of a potential landslide. Landslide hazard mapping would require skills of geologists, geo-technical engineers, geomorphologists, and topographists, among others. Disasters linked to climate change especially require scientific research. Scientific investigation and research are carried out through teamwork with experts from an array of different disciplines. But it is important to note that even with scientific expertise, the degree of accuracy in assessing hazards in most cases is still vague.

Sample of Hazard Assessment using Hazard Matrix

Hazard Assessment	Origin	Warning Signs and Signals	Period/ Speed	Force	Frequency	Time	Duration
Tsunami	Rainfall Snowmelt	Scientific Indigenous Animal 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

Scoring for Annual Flooding

Magnitude (description)	Magnitude Ranking	Frequency Ranking	Hazard score
Area with more than 5 feet of water	3	3	3
Area with between 3 and 5 feet of water	2	3	2.5
Area with up to 3 feet of water	1	3	2

Scoring for major flooding (e.g. Same as 2010 floods in Pakistan)

Magnitude (description)	Magnitude Ranking	Frequency Ranking	Hazard score
Area with more than 5 feet of water	3	1	2
Area with between 3 and 5 feet of water	2	1	1.5
Area with up to 3 feet of water	1	1	1

Scoring for river Bank Erosion

Ranking Score:	1	2	3
Frequency definitions	During major flooding	Seasonal (yearly)	On-going all of the time
Magnitude definitions	Less than 10% of agricultural land	Between 10% and 20%	More than 20%

Scoring for Cyclone

Magnitude (description)	Magnitude Ranking	Frequency Ranking	Hazard score
Area destroyed completely	3	1	2
50% of the area is damaged	2	1	1.5
25% of the area is damaged	1	1	1

There are several other tools that can help in hazard assessment process. The most commonly used tools are the following:

» Hazard mapping: drawn to locate the probable area covered by a hazard's impact and the elements at risk.
» Historical profile or time line: can make us understand how hazards have changed over time, which hazards have happened in the past; or the start of particular hazard occurrence?
» Seasonal calendar: visualizes the time, frequency and duration of common hazards.
» Direct Observation
» Semi structured interview,
» Focus group discussion,
» Transect walk etc.

Trainers Notes

In order to improve the participants understanding regarding use of different hazard assessment tools, divide participants into four groups and give them below mentioned group assignments with instructions, total time for the group activity is 20 minutes and for group presentation 10 minutes.

Group-1: Prepare HISTORICAL PROFILE of the village of one of the participant.

Group-2: Prepare SEASONAL CALENDER of the village of one of the participant.

Group-3: Prepare HAZARD MAP of the village of one of the participant.

Group-4: Prepare a STANDARD QUESTIONNAIRE FORMAT for data collection for assessing the hazards

Trainers Notes

Following are the further details of different tools commonly used for the hazard assessment (hazard map, historical profile, seasonal calendar)

Hazard Map (How to construct Hazard Map)

Hazard map must be hazard specific, remember that a hazard has its own nature and behavior, first determine your study area and identify the boundaries: What will be the criteria to select the area? Capacity, needs, hazards, etc.

» For directions mark down major natural and human made cornerstones by inserting major roads, bridges and buildings before marking minor roads.
» Always use a legend. Use different colors in the legend.
» Mark the rural settings such as farm lands and forests.
» Define what is important; use what is important for you.
» Start from bottom to draw the map.
» To identify where the hazards are, talk to the officials, get information you need from local people.
» Ask people the magnitude of the hazard (they will show you indicating their body parts), past disasters, and which areas are affected.
» Prioritize the most vulnerable in terms of lack of resources
» Keep the scaling system simple: a scale of 0 to 3 is sufficient.
» Hazards of different types are displayed as different sub-elements so that they can be more easily distinguished. Indicate the areas where different kinds of hazards overlap.
» Once you finish creating all your graphical hazards, merge them into a single hazard map.
» Areas where merged hazards overlap in

space and time are displayed in a hatching pattern to indicate that more than one hazard is defined for that area/time and a higher score is given.

Exercise 1

Group 1: Imagine yourself as being a VDMC of 6 to 8 members in flood affected village of Badin district. Through intervention of Tahafuz project risk assessment exercise has been initiated hence you are supposed to conduct hazard mapping in your village. For this purpose you will gather community members and by asking hazard relevant questions, you will mutually construct hazard maps. Use guide given above for constructing hazard maps.

Group 2: Imagine yourself belonging to flood affected village in Badin district, you may discuss among a group of 6 and can take up any role be it of peasant farmers, daily wager, school teacher, doctor etc. The members of VDMCs will develop hazard maps along with you after asking few hazard and disaster specific questions.

Questions
» What kind of natural disasters have occurred in your village?
» What is the frequency for each?
» What has been the magnitude for each?
» Prioritize 2 most significant hazards based on hazard scores for each. Hazard score are based around two sub indicators called magnitude and frequency.
» For magnitude ask communities about extent of the hazard and give appropriate scoring (note: scoring table guide for each hazard is give)

» For frequency ask communities about regularity of the hazard ie if it occurs yearly, bi- yearly etc (note scoring table guide for each hazard is given)

Tools required
» Chart papers
» Pencils
» Erasers
» Markers

Once exercise is completed the group for VDMC will have to fill in the following template;

Hazard	Frequency	Magnitude	Total hazard score
Major Flood			
Seasonal flood			
Cyclone			
Soil erosion			

Note: Please select and prioritize any two hazards, which ever has higher total hazard score

Tip in doing the community hazard map

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.

Historical Profile

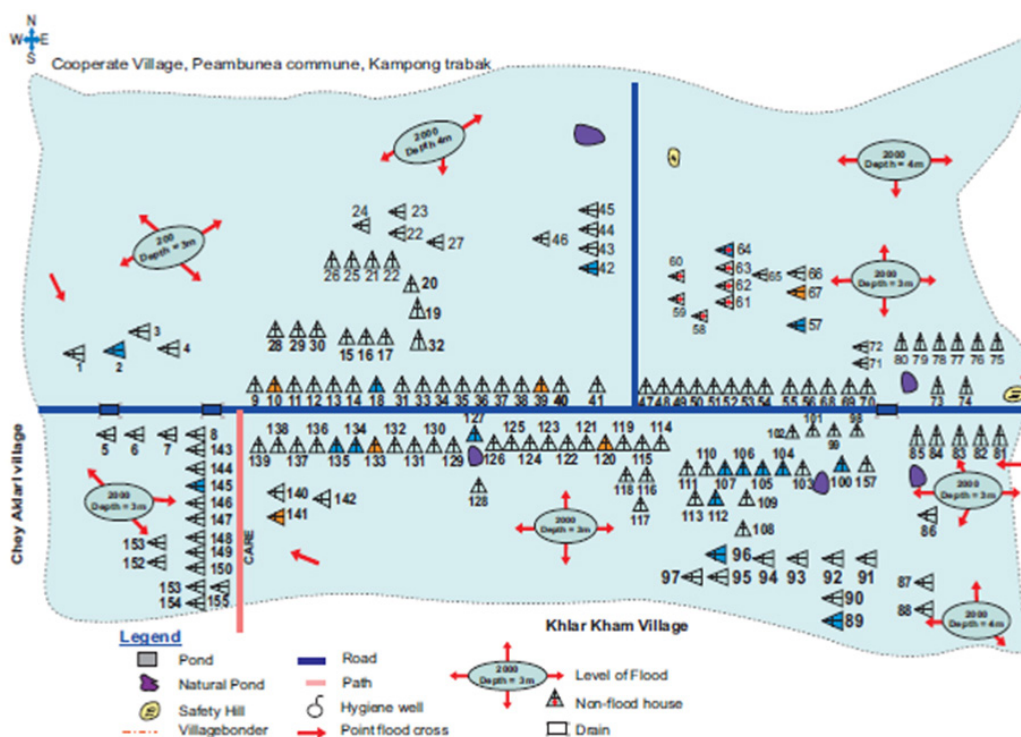**What:**
Gathering information about what happened in the past

Why:
» to get insight into past hazards, changes in their nature, intensity and behavior,
» to understand present situation into community (causal link between hazards and vulnerabilities)
» to make people aware of changes

When:
at initial phases

Cooperate Village, Peambunea commune, Kampong trabak

Other Hazard Maps
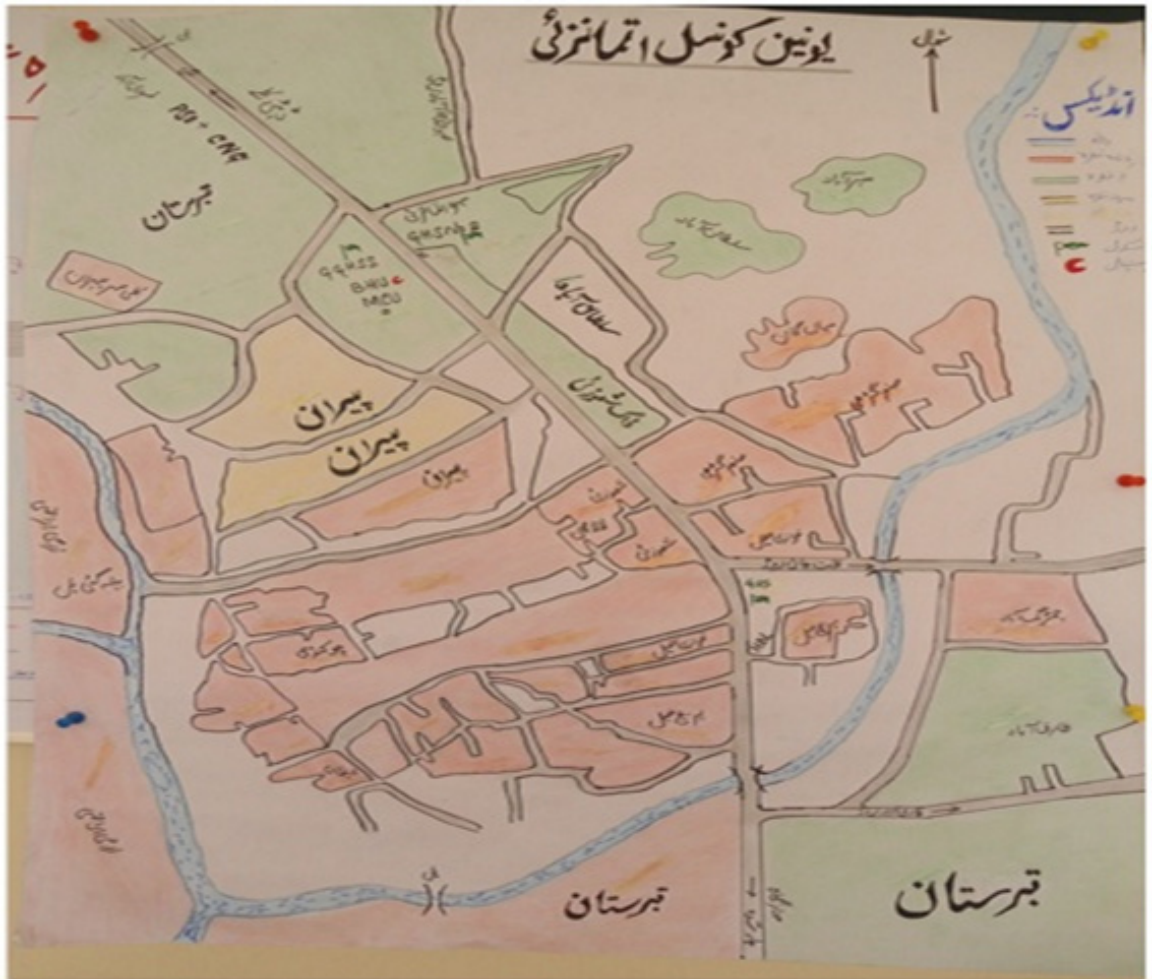
How:

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.

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

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.

Below mentioned two formats can be use for historical profiling;

Year	Events and Location
2005	Earthquake in AJK and KPK
2010	Flood in Punjab , Sindh and AJK

Year	Location	Disaster	Impacts	Secondary Hazards	Intensity
1990	Badin	Cyclone	Houses and crops destroyed	Epidemics	High

Seasonal Calendar

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

Why:
» Identify periods of stress, hazards, diseases, hunger, debt, vulnerability, etc.
» 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.
» Identify gender specific division of work, in times of disasters and in normal times.

Who:
VDMC members, project team and community members; have separate sessions for men and women if required.

How:
» 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.
» 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.
» 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.
» 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.

Sample Seasonal Calendar for VDMC

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

Vulnerability Assessment

Vulnerability refers to conditions (social, political, economic, and environmental, etc.) that affect the ability and capacity of a community to prepare for and responds to disasters effectively. Vulnerability Assessment is the process of estimating the susceptibility of 'elements at risk' to various hazards and analyzing the causes behind their vulnerability. The assessment takes into account the physical, geographical, economic, social, political and psychological factors, which make some people more vulnerable to the dangers of a given hazard while others are relatively protected.

Vulnerability expresses the level of possible loss, injury or damage to humans, objects, buildings and the environment resulting from a natural hazard. Vulnerability always relates to a concrete hazard. It arises out of the interaction of physical, environmental, social, economic, political, cultural, and institutional factors. Vulnerability is related to the lack of capacity

to anticipate a hazard, cope with it, resist it and recover from its impact. Vulnerability is generally greater where poverty and/or inadequate social protection make people less capable of resisting hazards. However, vulnerability is not the same as poverty. It is interesting to note that the poorest are not always necessarily the most vulnerable. For example, in earthquake zones, those living in houses made of concrete could be more vulnerable than those in bamboo huts. For an analysis of vulnerability, information must be collected based on the parameters of exposure to hazards (physical weakness), socio-economic fragility, and lack of resilience (inability to re cover). The formula for calculating the vulnerability value (using again a score between 1 and 3 for each parameter) is as follows:

[Exposure + Fragility + Lack of Resilience] / 3

People may differ in their exposure to risk as a result of their age, class, gender, ethnicity, identity, and other factors. Addressing

How vulnerability progress?

Trigger Event

- Earthquake
- High Wind
- Flooding
- Volcanic eruption
- Landslides
- Drought
- Sand Storm

Hazards → DISASTER ← Vulnerability

Unsafe Conditions

- Fragile Physical
- Environment dangerous locations dangerous buildings and infrastructure
- Fragile local economy
- *Livelihoods at risk*
- *Low income levels*

such vulnerabilities forms the basis of the vulnerability analysis.

Exposure to hazards refers particularly to the physical aspects of vulnerability. The best criteria of exposure can be based on the susceptibility of the population, assets, investment, production, livelihoods, historic monuments, and human activities. Other criteria include population growth and density rates, as well as agricultural and urban growth rates.

Fragility; It is crucial to recognize that while some risks are inherent, some exist or can be created within socioeconomic systems. Although there is no worldwide blueprint for choosing the right indicators, socioeconomic and cultural **fragility** may be represented by indicators such as poverty, lack of personal safety, dependency, illiteracy, income inequality, unemployment, inflation, debt, environmental deterioration, and so on. There is a need to standardize objective and quantifiable socio-economic indicators that can be applied by the assessment team.

These indicators reflect relative weaknesses that increase the direct impacts of dangerous phenomena. The selection of the appropriate indicators can be done locally or regionally with the participation of the community, also taking into account the validity of the data collected from the interviewed people. During the vulnerability assessment it is important to clearly describe which indicators will be used and for what reason. For the assessment of socio-economic and cultural weakness, possible indicators are:

» Household assets (e.g. having a vehicle, bicycle or washing machine),
» Sources of income (e.g. agricultural output, salary, off-farm income),
» Access to productive resources (e.g. size of arable land),
» Household composition (e.g. women headed household, ratio of working adults to family members, presence of elderly or handicapped),
» Situation of infrastructure/Access to basic services

Taking as measure the type of houses that local people live in is a good indicator of vulnerability. Looking at the quality of house construction, values of 1 to 3 could be assigned to the following 3 different types of houses in the target community:

Indicator: Quality of house construction

Value 1: fortified concrete poles with corrugated iron sheets

Value 2: wooden poles with corrugated iron sheets

Value 3: traditional with wooden poles and thatch

In the event of a cyclone, homes built with stronger frames and walls will be more resistant to the negative effects of the disaster, while traditional houses with a weak frame and straw walls and roof will be the most affected.

> Sum of indicator scores for "fragility" / number of indicators

The formula for calculating the value of socio-economic vulnerability is as follows:
Lack of resilience/capacity of a household or community refers to the inability to recover from a disaster, and is inversely proportional to variables that measure human development, human capital, economic redistribution, governance, financial protection, community awareness, the degree of preparedness to face crises, and environmental protection.

Possible indicators for lack of resilience are:

» Education level of family members/head of family
» Availability of neighborhood support

systems (or extended family systems)
» Percentage of family labor force compared to total number of family members

The number of family members with formal school diplomas could be an indicator for the resilience of that particular household. Similarly, the number of adults who are earning an income would be a good sign of resilience. A household with no adults in the labor force would be the most vulnerable (with score of 3), while a household with two adults in the labor

> Sum of indicator scores for "lack of resilience" / number of indicators

force would be the least vulnerable (with score of 1). It is recommended to use a maximum of 3 indicators and to formulate one question for each indicator. The formula for calculating the value for lack of resilience is as follows:

How to do vulnerability assessment

Vulnerability/capacity assessment should be capable of directing humanitarian and development aid interventions, seeking ways to protect and enhance people's livelihoods, assist vulnerable people in their own self protection, and support institutions in their role of disaster prevention.

In contrast to the hazard analysis, vulnerability analysis usually covers individual households. The assessment is done by individual interviews with representatives of households. Households that are not affected by hazards under investigation do not need to be included in this analysis (because where there is no hazard there is no disaster). If the social, economic and cultural situation in one community is rather homogeneous and if the purpose of the assessment is to conduct a rapid appraisal, families can be clustered for

group interviews. However, in order to verify the data collected, cross-checking based on random sampling is recommended. In order to reduce the time spent in the village and the frequency of visits to individual households, a questionnaire can be produced in which all the selected indicators are listed with the related scores based on a previously fixed ranking scale, so that during the interviews the study team can simply tick where appropriate. This will allow the project to recruit people from the communities to do the interviews and by doing so speed up the whole process significantly.

Exercise 2

Participants will be divided into two groups as per the following criteria

Group 1: represent coastal lying village in Badin prone to cyclone

Group 2: represent flood affected village lying alongside Indus river bank

Activity

Each group will be given a sample vulnerability assessment template to fill, they will give scoring from 1 to 3 under each indicator from perspective of hazard group they fall under. During the same time they would suggest changes to the template and would subsequently present their work

Activity completion time: **20 mins**
Group presentation time: **25 mins**

Trainers Notes; Vulnerability Assessment Criteria

Vulnerability assessment is a multi-level task that considers diverse scales of vulnerability.

These range from root causes of vulnerability (such as a lack of good governance, or no public access to political power), to dynamic pressures (such as urbanization or population growth) that translate these causes into unsafe conditions (such as a lack of early warnings of impending hazards or unsafe dwellings). Specific local patterns of vulnerability are identified, including vital links between root causes, pressures and unsafe conditions. Unsafe conditions revealed in this process become targets for action in CBDRM. Data is secured concerning the following:

» **Elements at Risk;** Establishing what the impact of the hazard could have on which elements of a given society (mainly based on factual information gained from people past experience)

» **Vulnerable Conditions;** Establishing why the elements are at risk

» **Pressures;** Establishing who or what is creating the vulnerable conditions and how this is taking place.

» **Underlying Causes;** Establishing why vulnerable conditions are created or ignored by the pressures. Limited access to power structure, Lack of resources , Ideologies , Political Systems , Economic Systems and Conflicts are the y major underlying causes.

» **Underlying Values and Belief Systems;** Considering what beliefs encourage, ignore or challenge the underlying causes of vulnerability. *(Source; VENTON and HANSFORD, 2006)*

Following template will be used for vulnerability assessment exercise:

Parameters	SAMPLE QUESTIONNAIRE Indicators	Scale	Rate	Score
	SAMPLE QUESTIONNAIRE			
	Indicators	Scale	Rate	Score
Exposure (A)	High (all property has exposure to hazard)	3	8	3
	Medium	2		
	Low	1		
Sub-score (A)	**3 / 1 = 3**			**3**
Fragility (B)	1 - Income (Bicycle / Car)			
	None (the poorest has no bicycle)	3		
	Old	2	8	2
	New	1		
	2 - Assets (House)			
	Rent	3		
	One	2	8	2
	More than one	1		
	3 - Access to Resources (Field)			
	Less than 2 hectares	3		
	2-4 hectares	2		
	More than 4 hectares	1	8	1
	4 - Women headed households			
	Women and children	3		
	Women alone	2		
	Both men and women	1	8	1
	5 - Average age			
	More than 40	3	8	3
	30-40	2		
	Less than 30	1		
	6 - Community set-up			
	Bad	3	8	3
	Medium	2		
	Good	1		
	7 - Insurance systems			
	None	3		
	Either house or crops	2	8	2
	Both house and crops	1		
Sub total (B)	**(2+2+1+1+3+3+2) / 7 = 2**			**2**
Lack of resilence (C)	1 - Labour force			
	More than 50% of adults are included in labour force	3		
	50%	2		
	Less than 50%	1	8	1
	2 - Education level			
	Up to primary school	3		
	Up to high school	2	8	2
	Above high school	1		
	3 - Neighbourhood/ Support systems			

A variety of tools can be used to enrich the community's participation in vulnerability assessment. These are as follows:

» Hazard maps - helps in visualizing the 'elements at risk'
» Transect walk - helps to get a better understanding of the community map and affords opportunity to ask more questions on physical/material vulnerability

» Seasonal calendar - gives insight on periods of stress, diseases, hunger, debt, etc.
» Livelihood analysis - gives a picture of the varying effects of hazards on different households and groups
» Venn diagram - shows the state of coordination among organizations and Government agencies or leadership patterns
» Community drama - enables people to

express what happens during disasters and why

» Problem tree and Ranking - shows linkage of vulnerabilities and enables

the community to express the priority vulnerabilities to address.

Stakeholder 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:
» Identify organizations (local & outside), their role/importance, and perceptions that people have about them,

» Identify individuals, groups, organizations that play a role in disaster response and can support community.

Who:
VDMC and community members.

How:
» Become familiar in advance with the names of the organizations.

» Ask people to determine criteria for the importance of an organization and to rank them

» According to these criteria.

» Ask people to what extent organizations

are linked to each other; note kind of relationship.

» Draw circles to represent each organization or group; size of circle indicates importance.

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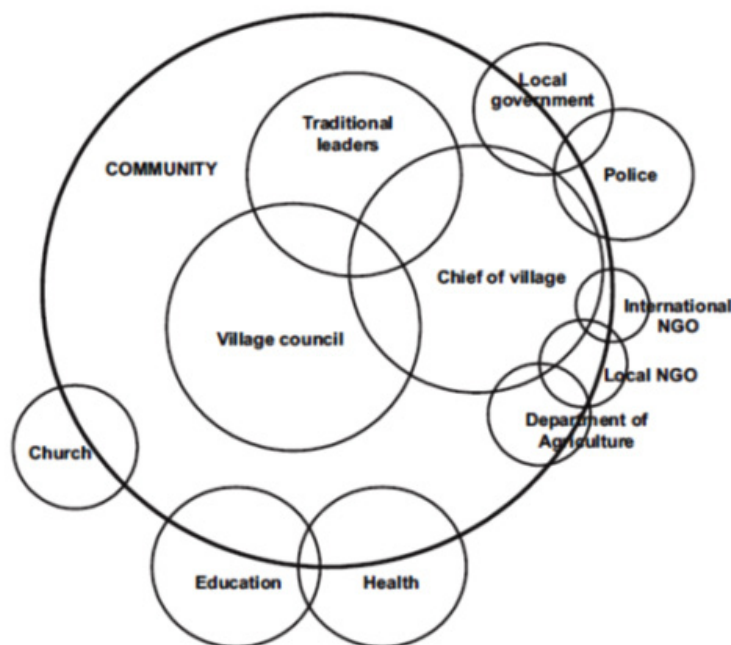
how is coordination; which organizations, groups, individuals are important in times of disasters, community level decision making mechanisms, etc.

Problem Tree

WHAT:
Problem tree showing relations between different aspects of causes, problems and effects.

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

WHEN:
During later part of situational analysis or community risk assessment especially in hazard, vulnerability and capacity assessment.

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

HOW:

» From other tools and interviews, team can learn the various concerns and problems
» 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
» Ask two or three volunteers to group the problems according to similarity or interrelationship

Now the making of the 'problem tree' can start the trunk represents the problems; the roots are the causes; the leaves are the effects.

Effects
- Reduced food production
- Damaged irrigation
- Roads destroyed by flood
- Drinking water becomes dirty during and after flooding
- Lack of sanitation facilities

Problems
- Drought
- Flood
- Lack of food
- Fire
- Landslide
- Strong wind
- Soil erosion

Causes
- Uncontrolled cutting of trees
- Culture & traditional practices
- Lack of knowledge among farmers on appropriate farming techniques
- No forest guards

Capacity Assessment

Capacity refers to existing resources, strengths and skills available in a community that which enable them to reduce disaster risks and withstand any natural or human-induced shocks on their own.

Capacity assessment is the process to determine how people cope in times of crisis to reduce the damaging effects of hazards. Through capacity assessment, the community's coping strategies and resources, which are available, for disaster preparedness, mitigation and prevention are identified. The capacity assessment process involves the following key components:

» Understanding people's previous experiences with hazards and the coping strategies they have developed
» Analyzing resources that are available and used by the community to reduce disaster risk

The capacity can be divided into four different types as listed below;

» Human /Technical (manpower, skills, equipment)
» Physical / Material such as Cash, Land, Tools, Food, Jobs, Access to Credit
» Social / Organisational such as Social Networks, Extended Family, Local and National Welfare Institutions
» Attitudinal / Motivational such as Sense of Control, Power, Capabilities, Confidence

Human /Technical

» How much man power available
» Gender wise distribution of human resources
» What are the available skilled manpower

available and required in case of any disaster
» What kind of equipment required and available if any disaster occurred

Physical / Material Capacity:

» 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?
» What are the hazards affecting the village? How do disasters affect the physical/ material aspects?
» 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?
» What is the mortality rate, diseases, nutritional status, population, literacy rate, poverty levels of the population?
» What is the status of the environment? Forest? Soil quality? River condition? Etc.

Social/Organizational Capacity:

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

Attitudinal/Motivational Capacity:

» What is the level of people's awareness of disaster events that happened in the

village?

» How do people view their ability to create change or development in the village?
» What are 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.

The triggering **factors for capacity development** are;

» High impact events
» Frequent events
» Motivated individuals and institutions (champions)

A number of tools can be used to ensure the community's participation in capacity assessment. These include the following:

» Historical profile and time lines - reveals how people cope with adverse events in the past
» Seasonal calendar - visual presentation of economic activities, coping strategies, availability of money and time, etc.
» Gendered resource mapping and gendered benefit analysis – shows differences in access to and control over resources between men and women in households and in the community
» Livelihood Analysis - insights on the coping strategies of individual households
» Institutional and social network analysis - formal and informal service structures for delivery of community services

Evaluation of Resources

Capacity: Ability to carry out designated task (i.e., first aid, search and rescue, building repairs)
Availability: Requiring time to be able to respond
Durability: the degree to carry sustained operations
Operational Integrity: the ability to take on an allotted task and complete it satisfactorily without supervision or continuous detailed direction

Presence of service delivery institutions, organizations, human resources, and availability of disaster preparedness equipment will reflect the capacity of a community. An inventory of various equipment and human resources in the communities and union council can be prepared. VDMC could include transportation means, water tankers, ambulance, health care providers (Doctors/LHVs/TBAs), volunteers, food, clothes and tools /Equipment, tents, boats, skilled divers, rescue and relief operators, dozers and excavators were insufficient in number; below mentioned toll can be utilized for capacity assessment.

S#	Particulars	Status		Source / suppliers	Remarks
		Adequate	Deficit		

Evaluation of resources available in the community could be done taking into account their availability, durability and capability. Following tools could be use to evaluate resources;

#	Resources	Capacity			Availability			Durability		
		VDMC Level	UDMC Level	Tehsil Level	Easily	Reported	None	short	medium	long
1	Skilled Manpower									
2	First Aid Boxes									
3	Water Supply									
4	Food									
5	Schools									

Venn diagram

WHAT:

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

WHY:

Identify organizations (local & outside), their role importance, and perceptions that people have about them; and to Identify stakeholders in CBDRM

WHO:

Team and community members

HOW:

1. Know in advance, names of organizations
2. Ask group to determine criteria for importance of an organization or individual

3. Ask group about level & type of linkages amongst organizations
4. Draw circles to represent each institution, group or individual.
5. Distance & overlap shows level of interaction amongst
1. organizations
2. Continue discussion by asking questions on:
   › History
   › Actions taken by organization
   › Coordination amongst them
   › People's perception of organization which one can be relied upon during disasters

Resource Mapping

WHAT:
Making a map showing local resources and capacities

WHY:
» Identify available local capacities and resources people rely on in times of disasters;
» Identify which resources are easily affected by disasters

WHO:
Team and selected individual households belonging to different income groups

WHO:
Ask to the community members to visualize the different types resources available within the village, and draw a map on chart paper or ground which shows each and every resource

in pictures, even illiterate community members can also participate in this to identify and list resources

Ranking of problem and solutions

The main objective of ranking of problems and solution is to know the priorities of community members or the most significant problems faced by the community, analyzing problems or weighing solutions can be facilitated by the use of ranking exercises. One very useful tool is to use different sizes of leaves or stones to order the problems, needs or solutions. Leaves and stones do not cost anything and are found everywhere in the community. Ranking is usually a long exercise because community members discuss the reasons why problems or needs must be order in such a way. The value of this exercise to the community is that it facilitates discussion and negotiation

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

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

Risk Analysis

AAfter the completion of hazard, vulnerability and capacity assessment, it would be essential to conduct risk analysis. The risk analysis will enable the community and the local authorities to understand the potential impact of various hazard events.

Risk analysis involves the development of risk scenarios based upon the information about hazards, their frequency and intensity and the elements-at-risk. A hazard can impact many elements at risk in different manners. During risk analysis we identify what kind of impact a hazard will have on various at-risk-elements; e.g. people, houses, crops, buildings, roads, schools etc. It also identify the extent of the impact; e.g. how many people might get killed, how many might be injured, how many hectares of land will be negatively affected.

Certain communities may be exposed to more than one hazard. In such areas it will be important to identify the potential losses from the various kinds of hazards. Different hazards may have differential impact upon various elements- at risk. For example, earthquakes can be very dangerous in terms of killing and injuring the people, while floods may not be. On the other hand earthquakes have very little impact upon crops, while floods have very severe impact, depending upon the cultivation season.

As a result of the analysis of risks, risk statements or risk scenarios can be prepared to indicate the impact upon various at-risk-elements from multiple hazards. Visual risk maps can also be produced based on the hazard maps with information on the level of physical vulnerability. The risk map showing the results of both hazard and vulnerability analysis is regarded as the most important tool

in risk analysis. In the risk maps, hazard maps are superimposed on maps of physical aspects of vulnerability.

In practice, risk analysis can be done by using hazard probability (hazard) and damage potential (vulnerability) matrix as shown in the table below.

Damage potential	Hazard probability				
	Very low	Low	Medium	High	Very high
Very low	VLR	VLR	LR	LR	LR
Low	VLR	LR	LR	MR	MR
Medium	LR	LR	MR	HR	HR
High	LR	MR	HR	VHR	VHR
Very high	LR	MR	HR	VHR	VHR

Following tools can be utilized for the detail village disaster management committee (VDMC) level risk assessment at local level.

Risk Assessment by VDMCs

#	VDMC	Hazard probability (HP)	Damage potential (DP)	Risk Assessment (R=HP*DP)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				

VHR= Very high risk, HR= High risk, MR= Medium risk, LR= low risk, VLR= Very low risk.

Risk Mapping

For the final assessment of risk, the values of hazard analysis and vulnerability analysis have to be multiplied with one another. The complete formula looks like below:

$$\text{Hazards} = \frac{\text{frequency/ probability} + \text{magnitude}}{2}$$

$$\text{Vulnerability} = \frac{\text{exposure} + \text{fragility} + \text{resilience}}{3}$$

After calculating the combined risk values for each household, one can classify household(s) in areas of low risk, medium risk and high risk, and mark them on the map. These final risk values may vary between 1 and 9. Therefore, households of low risk will receive a value of 1-3, while households of medium risk will receive a value of 4-6, and households of high risk will receive a value of 7-9. Below is the example of how villages are ranked based on total risk scores;
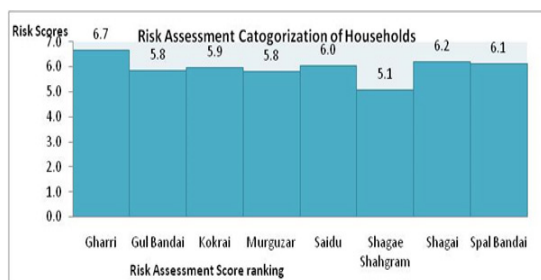
How do we develop a risk map by the VDMC?

To develop a community risk map, we 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:

» Which areas may be flooded if there was a strong storm? Why?
» Which areas have been flooded in the past in similar situations?
» 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?
» 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?
» 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?
» What other structures, such as bridges, walls, roads, or buildings might be affected?
» Is there a risk of the community becoming

isolated if connecting roads or bridges are damaged?
» What places would suffer the greatest risk of adverse effects as a result of a flood?
» 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) Development of the Risk Map by VDMC

There are two possible ways of develop 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.

Trainers Tips;

While conducting a risk assessment, be as clear and transparent as possible.

» Define your study area bearing in mind the scarce resources and focusing on the places where hazard potential,

vulnerability and needs are greatest.

» Do not use different teams to conduct the risk assessment exercise. It is better to have one team looking at the same locations to ensure a common understanding throughout the entire process.

» All risk maps should be nicely drawn and, preferably, should be electronically saved.

» Each stage of the risk assessment process should be recorded appropriately and saved. This includes the detailed results of all questionnaires, interviews, focus group meetings, interactions with authorities and so on. Assumptions, methods, data sources, analyses, results and reasons for decisions should all be recorded and saved.

» Photographs should be taken during each and every step of the whole exercise.

» If extraordinary human life stories are encountered during the process, these should be noted down, where applicable and needed.

» At the end, a summary report highlighting the methodological approach, findings, suggestions for improvements, and recommendations for future actions will be useful, as well as a copy of the risk maps of the communities under investigation.

Risk Evaluation

The purpose of risk evaluation is to make decisions about what strategies should be followed for the reduction of various disaster risks. The risk evaluation can also be used to rank the most vulnerable communities. This is done upon the basis of information from risk analysis. Communities and local authorities jointly can agree on criteria to rank the risks. They can decide what levels of risk are acceptable about which no actions need to be taken. The other risks would be ranked as high priority due to the potential damage

and loss, which they may cause to people, their livelihoods or environment. The decision about risk management may include:

1. Whether a risk needs treatment
2. Whether an activity should be undertaken
3. Priorities for treatment

The broad strategies for dealing with different risks are also identified and analysis in order to conduct cost-benefit analysis of various options. This is important because the costs of a risk reduction strategy must be lower than the potential losses in case of non-implementation of such strategy.

Risk Treatment Key

Risk Level	Actions
Very High Risk	Immediate action
High Risk	Heightened action
Low Risk	Business as usual

Upon the basis of risk analysis and risk evaluation the local authorities should prioritize the communities based on the potential losses they may suffer. This will be essential for the launching of community-based disaster risk management.

VDMC can use following tools for participatory risk assessment at village level, depending upon the situation VDMC can also use additional tools such as gender resource mapping, wealth ranking, livelihood analysis and poverty score card.

Trainer's Tips

Characteristics of a Participatory Risk Assessment Facilitator/Master Trainer

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 behavior 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 Master Trainer / 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.

Tools for collection of information and Assessment

The below table shows that the major tools which Tahafuz team can be utilized for the collection of information from community and utilized for the hazard, vulnerability and

capacity assessment accordingly. the brief detail of each tool (including some of the important tools) is also listed below the table;

#	Methods/Tools	Hazards	Vulnerability	Capacity
1	Direct observation	*	*	*
2	Secondary data collection	*	*	*
3	Group discussion	*	*	*
4	Semi-structured interviews	*	*	*
5	The Hazard Map	*	*	
6	Transect Walk	*	*	*
8	Historical Profile	*	*	*
9	Ranking	*	*	
10	Hazard and Seasonal Calendar	*	*	*
11	The Venn diagram (Institutional and social network analysis)		*	*
12	Do it yourself		*	*
13	Livelihoods analysis		*	*
14	Problem trees		*	
15	Gender resource mapping			*
16	Household wealth ranking		*	

* we can use respective tool for assessment *(source www. adpc.net)*

PRA Tools (Brief details) for Hazard, Velnerbility and Capacity Assessment

Direct observation; Observations are related to questions: What? When? Where? Who? Why? How?

Do it yourself; Villagers are encouraged to teach the researcher how to do various activities. The researcher will learn how much skill and strength are required to do day-to-day rural activities, gaining an insider's perspective on a situation. Roles are reversed: villagers are the "experts" and attitudes are challenged.

Participatory mapping and modeling; Using local materials, villagers draw or model current or historical conditions. The researcher then interviews the villager by "interviewing the

map." This technique can be used to show watersheds, forests, farms, home gardens, residential areas, soils, water sources, wealth rankings, household assets, land-use patterns, changes in farming practices, constraints, trends, health and welfare conditions, and the distribution of various resources.

Transect walks and guided field walks; The researcher and key informants conduct a walking tour through areas of interest to observe, to listen, to identify different zones or conditions, and to ask questions to identify problems and possible solutions. With this method, the outsider can quickly learn about topography, soils, land use, forests, watersheds, and community assets.

Seasonal calendars; Variables such as rainfall, labor, income, expenditures, debt, animal fodder or pests, and harvesting periods can be drawn (or created with stones, seeds, and sticks) to show month-to-month variations and seasonal constraints and to highlight opportunities for action. An 18-month calendar can better illustrate variations than a 12-month calendar.

Daily-activity profiles; Researchers can explore and compare the daily-activity patterns of men, women, youth, and elders by charting the amount of time taken to complete tasks.

Semi structured interviewing; A semi structured interviewing and listening technique uses some predetermined questions and topics but allows new topics to be pursued as the interview develops. The interviews are informal and conversational but carefully controlled.

Types, sequencing, and chain interviews; Individual, pair, and group interviews are combined in a sequence to take advantage of key informants and specialist groups.

Permanent-group interviews; Established groups, farmers' groups, or people using the same water source can be interviewed together. This technique can help identify collective problems or solutions.

Time lines; Major historical community events and changes are dated and listed. Understanding the cycles of change can help communities focus on future actions and information requirements.

Local histories/Historical Profile; Local histories are similar to time lines but give a more detailed account of how things have changed or are changing. For example, histories can be developed for crops, population changes, community health trends and epidemics, education changes, road developments, and trees and forests.

Local researchers and village analysts With some training, local people can conduct the research process (for example, collect, analyze, use, and present data; conduct transects; interview other villagers; draw maps; make observations).

Venn diagrams to show the relationship between things, overlapping circles are used to represent people, villages, or institutions; lines are added to reflect inputs and outputs.

Participatory diagramming -- People are encouraged to display their knowledge on pie and bar charts and flow diagrams.

Wealth and well-being rankings -- People are asked to sort cards (or slips of paper) representing individuals or households from rich to poor or from sick to healthy. This technique can be used for crosschecking information and for initiating discussions on a specific topic (for example, poverty). The

technique can also be used to produce a benchmark against which future development interventions can be measured or evaluated.

Direct-matrix pair-wise ranking and scoring -- Direct-matrix pair-wise ranking and scoring is a tool used to discover local attitudes on various topics. People rank and compare individual items, using their own categories and criteria, by raising hands or placing representative objects on a board. For example, six different shrubs can be ranked from best to worst for their fuel, fodder, and erosion-control attributes. Other resources can be ranked in terms of taste or marketability. Wealth ranking can be used to identify wealth criteria and establish the relative position of households.

Matrices can be used to gather information and to facilitate or focus analyses and discussions. For example, a problem opportunity matrix could have columns with the following labels: soil type, land use, cropping patterns, and available resources; and rows with the following labels: problems, constraints, local solutions, and initiatives already tried.

Stakeholders and social network analysis Draw circles to represent each organization or group; size of circle indicates importance. 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.

Traditional management systems and local-resource collections -- Local people collect samples (for example, of soils, plants). This can be an efficient way to learn about the local biodiversity, management systems, and taxonomies.

Portraits, profiles, case studies, and stories -- Household histories or stories of how a certain conflict was resolved are recorded. This can provide short but insightful descriptions of characteristic problems and how they are dealt with.

Futures possible -- People are asked how they would like things to be in 1 year and to predict what will happen if nothing is done or if something is done. People's desires, wishes, and expectations are revealed.

Diagrams exhibition -- Diagrams, maps, charts, and photos of the research activity are displayed in a public place to share information, facilitate discussions, and provide an additional crosschecking device. The exhibition can inspire other villagers to take part in research activities.
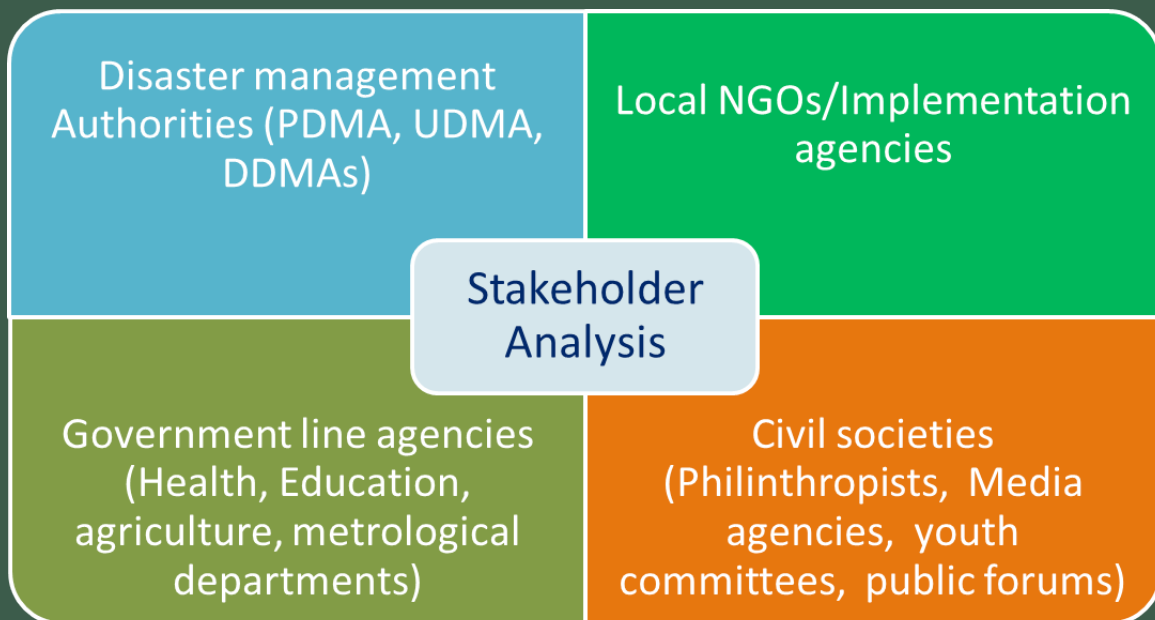
Shared presentations and analysis -- Participants are encouraged to present their findings to other villagers and to outsiders, providing another opportunity for crosschecking, feedback, comment, and criticism.

Short questionnaires -- Short and issue-specific questionnaires can be useful if conducted late in the research process.

(Source; PRA Tools by Robert Chamber)

Stakeholders Analysis

Disaster management Authorities (PDMA, UDMA, DDMAs)	Local NGOs/Implementation agencies
Government line agencies (Health, Education, agriculture, metrological departments)	Civil societies (Philinthropists, Media agencies, youth committees, public forums)

Stakeholder Analysis

Stakeholders Analysis

Objectives

To orient the participants about the importance of stakeholders and educate them how can do stakeholder analysis for Community Based Disaster Risk Planning and Partnership by VDMCs, clear understanding regarding basic concepts and approaches of Risk Analysis

Contents

» Identification of stakeholders
» Role and importance of stakeholders
» Stakeholders Analysis for Community Based Disaster Risk Planning and Partnership by VDMCs
  › Disaster Management authorities
  › Local NGOs/implementation agencies
  › Government line agencies
  › Civil Society Organizations

Methodology

» Group discussion for the identification of stakeholders
» List of potential stakeholders
» Power Point Presentations
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will be 2 Hours

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to stakeholder analysis etc.

Expected outcome

The participants will have clear understanding about the role and importance of different stakeholders and able to do stakeholder analysis independently.

Extra reading material and sources

» USAID Tahafuz CBDRM Toolkit
» Handouts
» www.adpc.net
» www.ndma.org.pk

Stakeholders Analysis for Community Based Disaster Risk Planning and Partnership by VDMCs
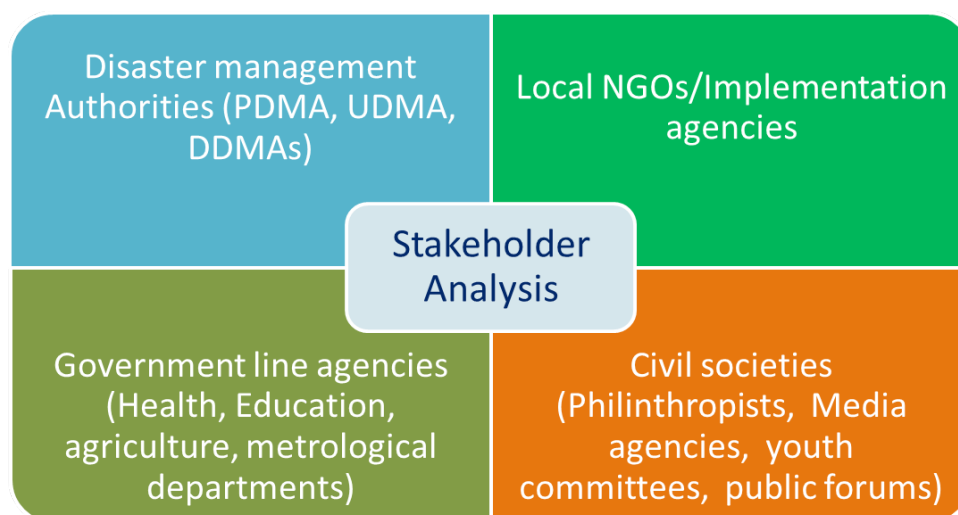
There are multiple stakeholders and actors in the community based disaster risk management process. The CBDRM actors can be divided into two broad categories, the Insiders and the Outsiders. The term Insiders refer to those individuals, organizations and stakeholders who are located within the community. Outsiders refer to those sectors and agencies which are located outside of the community and want to reduce community vulnerability and enhance its capacities for disaster risk management. Amongst the Insiders, the village disaster management committee (VDMC) and union disaster management committee (UDMC) are the focal points to ensure the management of disaster risks.

The VDMC/UDMC with the help of its members and committees facilitates the implementation of disaster risk reduction measures. Aside from the VDMC/UDMC every individual, family, organization, business and public service within a community has a role to play in reducing disaster risks, as all of them would be affected by disasters. The implementation of multiple actions is essential for effective disaster risk management. The VDMC/UDMC should mobilize men, women, farmers, fishers, laborers, youths and other people with special needs to implement the multitude of actions. In order to establish working relations, the VDMC/UDMC should recognize differing perceptions, interests and methodologies and facilitate a broad consensus on targets, strategies and methodologies among the multiple stakeholders in the community. The Outsiders include the government departments

and agencies, NGOs, UN, private sector and other outside agencies. Their role is to support the community's efforts in reducing their vulnerabilities and enhancing capacities for the longer-term. They can do this through providing technical, material, financial and political support. The outside agencies may initiate the process as part of their agenda or the community may contact them in order to receive support. The abundant financial resources, technical expertise and political clout of outside agencies can put them in a dominant position vis a vis the community, so they might be inclined to push forward their agenda at the cost of community priorities. However, exertion of control by outside agencies over community decision-making process can harm community capacity. Thus, Outsider agencies must be extremely careful and sensitive to community capacity building. Risk Analysis using and Quantify Vulnerability and Damage Estimation and Prioritization by VDMCs .

Once village disaster management committees are established and trained, it would become important to conduct a stakeholder analysis of relevant actors/organizations/institutions from whom these VDMCs can enact and draw

Disaster management Authorities (PDMA, UDMA, DDMAs)	Local NGOs/Implementation agencies
Government line agencies (Health, Education, agriculture, metrological departments)	Civil societies (Philinthropists, Media agencies, youth committees, public forums)

Stakeholder Analysis

support. The following matrix gives a snapshot of potential stakeholders from whom support can be drawn.

Disaster Management authorities

VDMCs will enact direct link with UDMCs by virtue of having its representation therein. Thereafter UDMCs will coordinate with DDMA & PDMA for support building in terms of replicating their tools and methodologies relevant to preparedness and mitigation.

Local NGOs/implementation agencies

Consortium of VDMCs and UDMCs will coordinate with local NGOs for support building in terms of services these organizations can render to them in terms of building capacities of members, refining and structuring their DRR plans and providing them opportunities to be part of projects where DRR activities are mainstreamed. Particularly by course of their outreach and strong presence with communities these NGOs will be point of contacts for emergency response strategies in case of disasters.

Government line agencies

Regular support will be sought from government line agencies for different activities relevant to agriculture and livestock, health and education, water & sanitation and other themes in which DRR is mainstreamed. Linkages with line department will be coupled with both administrative, logistic and other required support so that these UDMC & VDMCs evolve continually and stabilize their inherent role in their respective areas.

Civil Society Organizations

From time to time support will be enacted from media, philanthropists for purpose of advocacy and awareness so the prevailing issues in the villages are propagated in different forums and voice is raised to attract different development opportunities to make communities more resilient to disasters.

Participatory Disaster Risk Management Planning-PDRMP
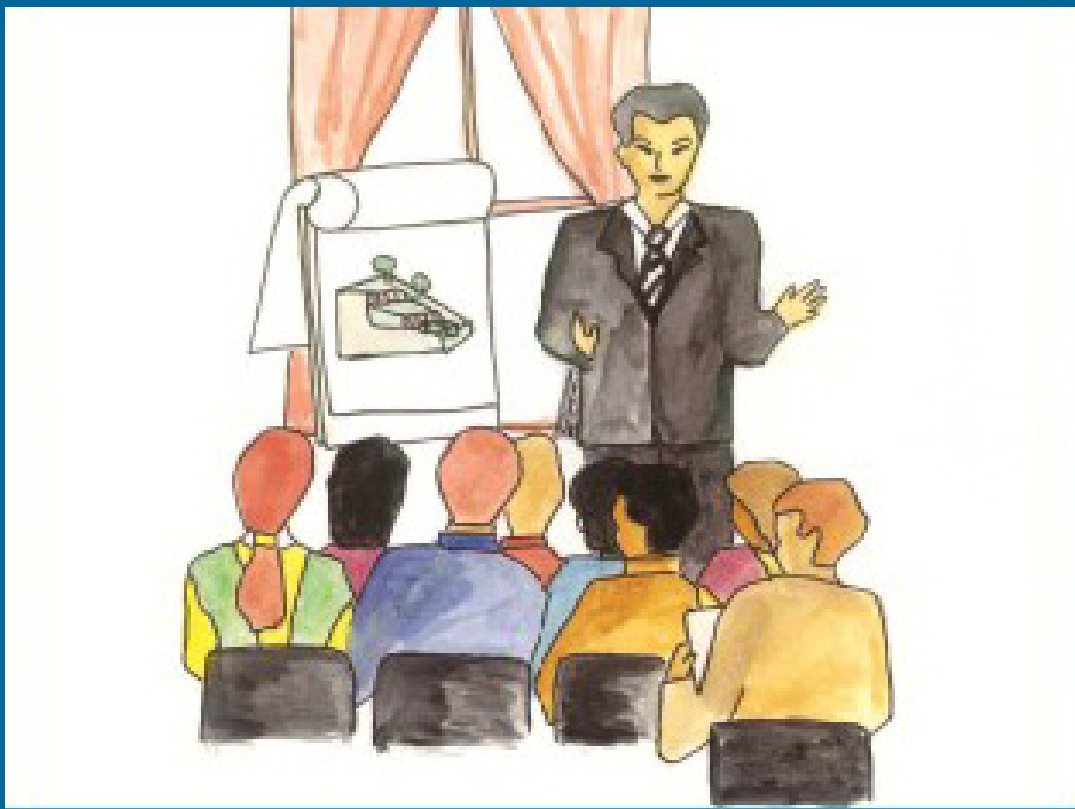
Participatory Disaster Risk Management Planning - PDRMP

Objectives

To make a clear understanding on planning, planning cycle and participatory disaster risk management planning, and to enable the participants to develop disaster risk management plans at VDMC level in participatory manner.

Contents

» Participatory Planning
» Planning Cycle
» How to do Participatory Disaster Risk Management Plan
» Tool for formulation of disaster risk management Plan

Methodology

» Power Point Presentations
» Group Activity on Preparation of Disaster Risk Plan
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will be five Hours; which will include a lunch break and energizers

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to Participatory Risk Reduction Planning and Disaster Risk Plan

Expected outcome

All the participants would be able to develop participatory disaster risk management plans, and also able to train and support community members /VDMCs in development of PDRMP plans in the Tahafuz project districts.

Extra reading material and sources

» Handouts
» USAID Tahafuz CBDRM Toolkit
» www.adpc.net
» www.ndma.org.pk

Participatory Planning

Planning is a conscious and systematic process of forecasting and deciding in advance the goals, appropriate actions to achieve the determined objective and earmarking the resources which are expected to be perused in future by an individual, group, organization or programme.

It provides a clear map to be followed and specifies the course of actions to adhere to in order to achieve the desired goal. A good plan should give a clear picture of the future tasks and indicate the assigned resources to accomplish them. A plan is detailed expression of actions necessary to accomplish objectives. A good plan gives a clear picture of future of a programme or the organization; placing all components in an orderly and logical pattern; ensuring cost effective use of resources and timely accomplishment of the goals.

Planning Cycle

The following actions are usually associated with the planning cycle:

- » Analyzing current situation
- » Anticipating the future
- » Setting objectives
- » Framing policies and strategies
- » Deciding type of activities and responsibilities
- » Setting a feasible time schedule
- » Determining resources needed to achieve the goal
- » Earmarking parameters and procedures for supervision and monitoring

Analyzing current situation

- » Identification of the problem and deciding which merit priority attention
- » Identification of people at risk, such as those exposed to or affected by the problem

- » Discovering where risk groups live and work
- » Determining the extent of the problem and the level by which it can be reduced in a set time

Anticipating the future

- » This involves developing a vision for the future and setting goals

Setting objectives

- » Objectives are concrete and specific aims to be achieved, often within a stated time period. Goals are always accomplished through formulating a set of feasible objectives which can facilitate the achievement of perceived future goals. Objective provide directions; serve as standard for evaluation performance and assist in motivating people to give their best efforts towards the achievement of the goals

Framing policies and strategies

- » Framing policies and strategies are significant tools for accomplishment of the objectives. These provide guidelines for reaching the destination and earmark ways and means for the tasks with broad limits to work within. Policies and strategies must be concise but consistent with the approach; covering all related aspects and oriented to future needs in order to cope with emerging issues and situations.

Deciding type of activities and responsibilities

Activities are designed to provide set of actions to be carried out in a logical sequence to reach the chosen goal. It comprises of;

» Indicate the activities required to be carried out for each risk
» Earmark targets individuals/groups/population these activities will affect
» Decide on the techniques, methods, framework, sequence, frequency and location of these activities
» Assign the tasks and responsibilities to individual members to carry out the planned activity

Setting a feasible time schedule

All activities are carried out within a time frame. In the beginning, a tentative time schedule is prepared that is revised during the course of implementation. The main factors to be considered while setting the time frame includes;

» Is it in line with the sequence of activities?
» Is it flexible enough to cope with the emerging situation?
» Does it ensure cost effectiveness of activities in relation to time?
» Does it interconnect activities in a logical manner and prevent overlap?

Determining resources needed to achieve the goal

Resources enable certain activities or group of activities to be carried out. The planning process includes determination and extent of available resources according to the following;

» Specifications of the nature of resources

Participatory Planning for DRM

Based on disaster risk assessment the participatory DRM plan would be develop , the key elements would be;

» Analysis of findings of Disaster risk assessment and identification of problems
» Formulation of village disaster management planning
» Formulation of disaster management committee at village level
» Building capacity of members in village disaster management committee
» Stakeholder analysis for proposed support building
» Finalizing Village DRR Plan

required such as human resources, equipment, supplies or money.
» Quantification of resources (the quantity of each category of resources)
» Determination of cost of required resources
» Identification of sources (contributors)

Earmarking parameters and procedures for supervision and monitoring

Planning includes setting standards and procedures to be followed for monitoring and measuring progress in order to confirm that goals are being achieved according to the planned targets. This can be verified through the following steps;

» Specify standards and parameters for the determined activities
» Deciding norms of performance and appraisal procedures
» Applying specific activity records and reports forms as well as reporting system
» Identifying methods for resolving conflicts
» Choosing methods for resolving conflicts

» Determining frequency of monitoring and supervision and procedures to incorporate their results into future decisions.

Participatory Disaster Risk Management Planning – PDRMP

Participatory Disaster Risk Management Planning is a process where members from all segments of the community propose concrete risk reduction measures based on the following:

» Vision of their ideally prepared and resilient community at village level determining the acceptable level of risk
» Decision as to whether identified risk can be prevented, reduced, transferred or lived with
» Their own capacities and other resources that can be generated outside of their community.

Under each prioritized hazards disaster management planning will be set based around the following elements

1) Factors causing vulnerability
Under this category factors causing vulnerability levels will be identified, which may include agriculture land being close to river banks and being continually eroded in the past as a driving indicator in case of floods.

2) Impact levels observed
Impact level which may be observed may constitute food crisis caused by flooding

3) Disaster management measures identified
To counter act impact of the potential disaster management action plans will set basis which may include construction of flood protection bunds and terracing alongside riverbanks to protect agriculture fields

Upon completion of the participatory disaster risk assessment, community disaster risk reduction plan is prepared. Community members identify risk reduction measures with the help of local authorities in order to address the hazards and the vulnerability. In this regard following aspects are considered:

» Vision of their ideally prepared and resilient community
» Decision on whether an identified risk can be reduced, transferred or lived with
» Capacities and resources that are available in the community and locally
» Stakeholders who could become partners in the implementation of the plan
» Stakeholders who might be against certain risk reduction activities and who would need to be neutralized

Visioning: The local authority's officials should facilitate a community session on visioning. Team facilitators ask the community members to dream about the kind of "safe community" they want to attain in relation to disaster risks they identified. The ideas of community members on "safe community" can be written on the flip chart by the local authority officials. This is the time when the local authorities, community members and other stakeholders can have a thorough discussion on what they want to achieve in the disaster risk reduction process. They must set up concrete and achievable targets. The community members, local authority officials and other stakeholders should jointly establish indicators in order to measure whether targets have been achieved or not.

Identify Risk Reduction Measures: The community members and local authority officials in collaboration with other stakeholders identify activities that will help in mitigating the hazards and minimizing

vulnerabilities. The role of local government officials and other technical experts will be important in providing relevant information to the community members regarding the strategies for hazard mitigation and vulnerability reduction. The risk reduction measures may include; construction of rainwater harvesting structures, flood and typhoon dykes, retrofitting of houses, improvement in sanitation system to allow proper flow of water, diversification of crops, forestation, mangrove plantation and land use planning etc. Initially a list of all potential risk reduction measures can be identified. Later on through analysis of local resources, culture and the benefits of various risk reduction measures, they can be prioritized.

Identify resource requirements: The group can refer to the data collected during the capacity assessment stage in order to identify the various resources that are available in the community. The group can further discuss

about the additional resources needed for implementation of risk reduction activities and the potential sources; e.g. the local government, an NGO, a research institution, a bank etc. The amount of money required to implement each activity is estimated. A budget is prepared to correspond to each of the activities.

Responsibility and schedule: After the prioritization of risk reduction measures and identification of resources, the group should assign responsibilities to various stakeholders on who will do what. A realistic time frame should be set up for implementation of the activities. The group can discuss the arrangements for monitoring of the implementation process.

After identifying resources needed and the available resources, the community members and local authorities can together help form an action group (community based organization)

Tool for development of PDRMP

In the light of Participatory Disaster Risk Assessment, in which the community ranks the disaster risks according to priority for action, the participatory disaster risk management plan will be develop. The Village Disaster Management Committees (VDMCs) by using participatory approach will formulate DRMPs by using the following templates:

Community Disaster Plan Templates

Hazard: flood, cyclone, earthquake, drought
Objective: Conduct orderly evacuation, search and rescue of affected population
in the community
Indicator: Zero loss of life

Activities	Time Frame	Resources available	Resources needed	Amount of resources needed	VDMC/people responsible

to perform the tasks identified within an agreed time frame. It will be important to present the community disaster reduction plan to the whole community and get feedback from various groups. The plan should be revised upon the basis of community feedback .

Why DRR Planning

Community Based DRR Planning uses for identifying practical measures for hazard mitigation and vulnerability reduction and their implementation within a stipulated timeframe with an active involvement of target community.

DRR Planning Process

» DRR planning is very effective and meaningful when prepared jointly by the experts and community members.
» During the planning process, the relevant groups and organizations are consulted at each and every stage of planning and their inputs are integrated

Importance of DRR Planning

» Participatory assessment of risks, hazards, vulnerabilities and capacities leads to a concrete action planning.
» Community Based DRM Planning allows to identify pre, during & post disaster risk reduction measures
» Hazard, Vulnerability & Capacity Assessment will remain meaningless until and unless the information are not transformed into a practical plan for implementation.

DRR Plan should have

» Clear aims, objectives and targets;
» Plan should be flexible to absorb changes;
» Optimum use of available resources;
» Coordination with all stakeholders;
» Participation of all concerned.
» Time frame

Key Steps required for developing a DRR plan

» Identify the potential risks including hazard, vulnerability and capacity assessment;
» Formulate objectives and targets;
» Identify risk reduction measures for pre-, during- and post-disaster phases;
» Assess available and determine required resources for the implementation of identified risk reduction measures;
» Delegate responsibilities and set implementation deadlines;
» Elaborate operational modalities and procedures;
» Identify constraints and challenges that may hamper the implementation of DRR Plan;
» Seek support and commitment from relevant stakeholders for implementation purposes; and
» Develop monitoring and evaluation mechanism.

Chapter 9

Community Managed Implementation (CMI)

Chapter 9 — Community Managed Implementation (CMI)

Objectives

To make a clear understanding on how to initiate a Participatory/Community Managed Implementation of Disaster Risk Reduction interventions.

Contents

» Participatory Management
» Formulation of disaster management committee at village level
» CMI approaches including Resource mobilization, and DRR Plans
» Development of DRR Plan at village level
» Participatory Implementation Process
» Mitigation and Management of Community Critical Infrastructure (CCIs)

Methodology

» Power Point Presentations
» Group Activity on Preparation Management
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will befour Hours; which will include a lunch break and energizers

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to Participatory/Community Managed Interventions etc

Expected outcome

Participants will have clear understanding on how to initiate a Participatory/Community Managed Implementation related to Disaster Risk Reduction interventions.

Extra reading material and sources

» USAID Tahafuz CBDRM Toolkit
» Handouts
» www.adpc.net
» www.ndma.org.pk

Participatory Management

In order to implement DRR focused risk action plans; it would be imperative for UDMC & VDMCs to have a participatory management framework which involves contribution from different relevant stakeholders and which bring forth mechanism for sensitization and awareness building across different forums.

Public Awareness in CBDRM through VDMCs and UDMCs

Public awareness in DRR will be unfolded out of advocacy campaigns and community focused dialogues/deliberations which will primarily be based around arousing awareness of DRR among different stakeholders and bridging the gap which exists between communities and entrenched support mechanisms. The adoption of following activities will build public awareness in CBDRM in Tahafuz Project

Social mobilization

Through mobilization of human capital in the villages while introducing them to essentiality of CBDRM and its importance to them; ground work would be laid whereby potential would be created for community based structures that will enact upon DRR focused plans.

Community based dialogues/sessions

Once VDMCs & UDMCs are formed, their representatives will hold dialogues and sessions with communities and will therefore build their knowhow with regard to DRR tools and principles which includes preparedness measures and mitigation approaches. The role of VDMCs will be to channelize ideas and prioritized activities which come out of the discussion through certain inventive measures which will be incorporated into DRR plans.

Coordination with Disaster management bodies

VDMCs & UDMCs will coordinate with DDMA, PDMA for support building through workshops/seminars be it in terms of technical, logistic, financial or operational support and will thus aim to replicate community based measures which are defined under policy directives of these institutions. In this manner while replicating these measures, capacities of VDMCs & UDMCs will be accordingly built in importance of aspects such as early warning systems, small scale mitigation/infrastructural measures etc.

School based DRR Plans

DRR plans envisioned and developed at village level will foster and incorporate views and opinions of school children. In their regard awareness building sessions and activities will be held in schools which will encompass mock drills, puppet shows and sessions on DRR preparedness and dos and don'ts during a disaster prone situation. The discussion and insights of these activities will be translated into school DRR plans which will be disseminated to teachers, students.

Exercise 4

The participants will be divided into group of 4 in accordance with following categories and will be subsequently required to make presentation for their categories.

Group 1: assess problems of food insecurity and come up with inventive long term and short term solutions.

Group 2: assess problems of water & sanitation and come up with inventive long term and short term solutions.

Group 3: assess problems of protection and shelter and come up with inventive long term and short term solutions.

Group 4: assess problems of income generation and come up with inventive long term and short term solutions.

Group activity time: 35 mins

Presentation time: 30 mins

Formulation of disaster management committee at village level

The functions of VDMC can be divided into three categories in concurrence with the phases in disaster risk management, the pre, during and post.

Components	Functions
Preparedness	Share community Disaster Management Plan with all members of the community
	Mobilize all VDMC members to implement the planned disaster risk reduction measures at village level
	Mobilize resources that the community cannot produce or access on its own
	Conduct disaster preparedness training with VDMC members
	Raise community awareness on what to do before, during, and after a disaster.
	Monitor disaster threats, conduct drills, and draw lessons to improve the plan. Network and coordinate with government disaster management committees or councils, NGOs, other communities, etc., as well as with UDMC
	Engage in advocacy and lobby work regarding disaster management and development- related issues to support local and community disaster risk management
	Expand membership and involvement in disaster risk management committees and activities.
Emergency response	Issue warning
	Manage evacuation
	Organize search and rescue with community participation
	Provide first aid and arrange subsequent medical assistance
	Conduct Damage Needs Assessment and report damages and needs to government and disaster management agencies for assistance as per Government designed reporting formats and criteria
	Coordinate, plan, and implement relief delivery operations with DDMA, civil defense and other local agencies and UDMCs.
Recovery	Ensure that risk reduction measures are integrated during construction and rehabilitation of critical community infrastructures
	Evaluate the performance of VDMC capacity and effectiveness to promote community safety
	Coordinate with UDMCs for the implementation of different recovery measures

Building capacity of members in village disaster management committee

The aim of training is to build and enhance the VDMC and UDMC capacities to successfully implement its disaster risk management related functions and to reduce disaster risks. The two main areas in which training is imparted are:

» Training in community based disaster risk management

» Training in management and development

Module	Description
Disaster Preparedness and Response	Search and rescue
	Medical first aid
	Relief coordination, distribution
	Emergency shelter management
	Evacuation management
Capacity building in disaster risk reduction	Orientation on disaster reduction
	Conducting risk assessment
	Designing and conducting risk communication
	Designing local early warning systems, as well as linkages with DDMA, PDMA etc.
	Small scale structural mitigation
	Livelihood sustainability
	Advocacy for community vulnerability reduction

CMI approaches including Resource mobilization, and DRR Plans

For many humanitarian aid organizations, CBDRR is the most important strategy when implementing a DRR project, for some organizations, it is the only acceptable strategy because they critically assess individual support to single families. There are many good reasons to emphasize on community approaches. Just a few are mentioned below:

» Individual support can easily split communities into those who received support and those who didnt and undermine a community spirit of helping each other
» Communities have (must have) a long-term vision as compared to rather shortsighted project interventions
» When working together as communities, people can master ambitious and large-scale projects like infrastructure, dikes or shelters with their own means and resources which positively contributes to peoples self-respect and self-sufficiency
» Community-approaches can achieve sharing of resources between better-off, healthy and active families on the one side and poor, handicapped and incapacitated households on the other side (e.g. by sharing information in an early warning system)
» Community-based approaches can address lobbying and advocacy issues much more effectively than individual families

Successful examples of community-based DRR elements:

» Similar to primary health care programs promoting so called barefoot doctors (who themselves would train villagers in basic health issues) one can recruit and train village based barefoot disaster risk reduction agents. They would not only identify existing hazards and vulnerabilities, but also establish early warning systems, organize and mobilize villagers and implement or enhance risk reduction activities
» Adopted from "farmers field schools" (FFS) one can organize Risk Reduction Village Schools where adults regularly gather, exchange views and opinions on disasters and how to counteract them, get additional advice and expertise from outside trainers or experts and conceive measure of risk reduction
» Setting –up of community disaster risk reduction cooperatives/institutions. This has been tried many times but often without success. Therefore, it is generally accepted that such institutions need to encompass other functions and tasks than just DRR, like for example joint economic activities (commercializing goods), cultural or sport-related actions
» Community saving schemes to collect small funds from participating households which will be used in order to finance risk reduction activities and also for urgent needs and rehabilitation works after a disaster
» Building-up of lobby groups consisting of vulnerable families that will put pressure on the government and other stakeholders for addressing their needs more efficiently

Development of DRR Plan at village level

Following is the sample DRR plan developed at village level, VDMC/UDMCs associated with USAID CBDRM Tahafuz Project would develop their own DRR plans at village level.

Development of DRR Plan at village level

Component	Description
Search & Rescue	Identify team for search and rescue operations in VDMC & UDMC
	Arrangement of disaster response tool kits
	Coordinate among VDMCs during outbreak of hazard
	Arrange for logistical support in terms of vehicles and boats & helicopters to reach promptly toward affected zones
	Catering to special needs of vulnerable groups such as children, women & imbeciles
	Secure transfer of saviors to allocated safe zones promptly
	Coordinate with Disaster management authorities army, Local NGOs & Media for support building
First aid operations & dead body management	Allocation of village health workers for provision of on spot first aid and treatment of affected in camps & disaster affected zones
	Coordination with local BHU & RHU for support in terms of medical kits & medicines
	Conduction of prompt search operation and smooth transfer of corpse to designated health units
Need assessment	Collection of first information on scale of damages be it in terms of houses, damages to assets, infrastructure & human from communities and recording them
	Coordinating with DDMAs for information exchange
	Conducting problem analysis and chalking out response strategy under each cluster
	Communicating support required to DDMAs & local NGOs
Camp management	Setting up camps in schools, hujras and community central safe zones
	Setting up medical camps in vicinity of these locations and inviting visits from paramedic staff
	Registration of beneficiaries in camps
	Allocating designated personnel for camp management
	Catering to special needs of women and children
	Communication detailing of camps to disaster management authorities and local NGOs for attraction of aid
	Attracting support from philanthropist for financial support
Relief distribution	Estimating level of support required for basic amenities such as food, shelter, water etc
	Communicating need assessment data to relevant stakeholders for financial and in kind support
	Mobilizing local leaders/community notables for provision of aid
Early warning system by UDMC & VDMCs	Coordinating with DDMA for replication of government early warning systems
	A system for issuing early warning to the community members about impending hazards is established under the community based organization in collaboration with the local government.
	A warning system is comprised upon following elements.
	1. Forecast on hazard occurrence
	2. Communication of warning
	3. Action by community members
	Community early warning system is established on the basis of knowledge of the community about the occurrence of hazards.
	Community early warning system is established on the basis of knowledge of the community about the occurrence of hazards.
	Community early warning system is linked to the warning system at the district, province and or national levels.
	Community members are oriented about the meaning of warning signals and messages.
	Channels used for issuance of warning messages are accessible to different vulnerable groups in the community
Food and Nutrition Needs in Emergency	In initial periods cooked food is essentially required by communities so there needs to be inbuilt mechanism for arrangement of that
	VDMCs should have food storage facility in safe zones where a fair reservoir of basic food items is stored through community investment funds for disaster emergency response
	Community should be encouraged to store food themselves too in stakes on roof tops

Training of VDMCs and UDMCs

The aim of training is to build and enhance the VDMC and UDMC capacities to successfully implement its disaster risk management related functions and to reduce disaster risks. The two main areas in which training will be imparted are:

» Training in community based disaster risk management
» Training in management and development.

The **disaster risk management training** will focus on the following aspects:

Disaster Preparedness and Response, which will cover the following:

» Search and rescue
» Medical first aid
» Relief coordination, distribution
» Emergency shelter management
» Evacuation management

Capacity building in disaster risk reduction, which will cover the following:

» Orientation on disaster reduction
» Conducting risk assessment
» Designing and conducting risk communication
» Designing local early warning systems, as well as linkages with DDMA, PDMA etc.
» Small scale structural mitigation
» Livelihood sustainability
» Advocacy for community vulnerability reduction

Organizational management and development training

This training is for the staff and members of the UDMC to equip them to manage the roles and functions of the UDMC effectively. Subjects to be covered are the following:

» Leadership
» Planning
» Negotiation, conflict management and conflict resolution
» Respond to emergencies
» Coordination and networking with Government and other agencies
» First Aid
» Financial management and record keeping to ensure accountability and transparency at all levels
» Coordination to tap financial resources in case of emergencies
» Collection, collation and sharing of damage assessment information with government and other stakeholders
» Supporting and mentoring VDMCs, particularly in implementation of their DRMPs
» Documentation and record keeping

Community Management Implementation at Tahafuz

Implementation Actions: The respective VDMC will implement the risk reduction measures as per the plan developed after assessment and mapping. The effective operating of such an organization will ensure that planned activities are implemented on time and within the given resources. This will includes a number of tasks and processes; e.g. tasking, mobilizing community resources, capacity building, monitoring and review, and making adjustments.

Participatory Implementation Process at Tahafuz adopted by RSPN

For implementation of Tahafuz CBDRM project interventions, RSPN will use the

below 8 guiding principles for a participatory implementation process. These have been previously utilized in the Participatory Project Cycle Management (PPCM) approach of the Asian Productivity Organization and also by the Asian Disaster Preparedness Center (ADPC) for the Community Based Disaster Risk Management.

» **Participation of all stakeholders:** As VDMCs are implementing DRMPs this will encourage active involvement of individuals, social groups, organizations, and other stakeholders from the beginning of the project planning process.

» **Dialogical Communication:** Respect the diversity of opinions. People of different cultures, groups, disciplines, social and economic classes can work together to find better solutions to problems through continuous exchange of ideas and interactions.

» **Sequential process:** The application of different methods and tools will follow a logical and systematic process to analyze the situation, establish a clear understanding of the problems, and formulate a sound vision for the community.

» **Cyclic process:** Carry out planning in a cyclical manner, through several feed-back loops in order to modify project activities according to the experience gained. In this process plans are valid until new insights and findings make it necessary to revise them. Flexibility in decisions and plans is regarded as the strength of the participatory project cycle management process.

» **Systematic analysis:** The project is analyzed in relation to both its internal and external environment in which it operates through process review, project workshops and midterm and final

evaluation to see gage project successes and impact.

» **Cross-cultural sensitivity:** Under this project the methods and tools that are acceptable to various sub-groups in the community would be used, given their cultural context. The process will be flexible to change.

» **Transparency:** Encourage open communication among stakeholders, continuous feedback on results of decisions and the use of methods and instruments.

» **Consensus orientation:** In the participatory planning process, complete agreement during discussions may not always be possible due to diverse groups and interests. However, the transparency established by the process leads to developing relationships based on mutual understanding and concurrence among those involved in the planning process. This process will works towards achieving the best consensus in each situation

Mitigation and Management of Community Critical Infrastructure (CCIs)

Based on the DRMPs **prepared by the VDMCs,** the implementation of the issues and solutions identified will be implemented on a priority basis. For this the VDMCs will implement the most important prioritized and feasible activities in DRMPs to increase their disaster resilience. Under this project, VDMCs in order to increase their preparedness to water and seismic disasters will focus on construction of community critical infrastructure for e.g. construction of connecting roads/paths, rescue points on raised platforms, **protection** of drinking water sources, **flood proofing of shelters/public buildings**, knowledge of food security and immunization etc. This will

increase the community's preparedness by through reducing their human and livestock casualties and also their food and water dependence on external sources. Not only will these communities be trained with skills to better cope with disaster situations but they will also be made able to prioritize the most relevant critical mitigation infrastructure. **Project** Field Engineers will prepare the design and cost estimates of the Community Critical Infrastructure Projects identified in the DRMPs based on the VDMCs resolution. Funds will be transferred in the accounts of the respective VDMCs on work done basis in three installments on the basis of installment release request initiated by the VDMCs, recommended by Project Community Mobilizers and verified by the **Project** Field Engineer. The utilization of the funds on the activities mentioned in approved CCI schemes during the course of the project will be monitored by the Field Engineers as per design and specifications. Steps involved in implementation of community critical infrastructure activities are given below:

» Selection of Project sites in each village in consultation with VDMCs as reflected in their DRMPs
» Opening of VDMC accounts jointly operated by the VDMC president and manager
» Request from the respective VDMC for the specific project on
» Formation of cost estimates of the project on by the DDR field engineers under the supervision of District Project Engineer
» Approval of project by the District Project Officers
» RSP will provide registers to VDCM for record keeping of CCI materials, labor and financial information
» Release of first installment in VDMC bank account in the form of cross check on VDMC's name

» Formation of project implementation committees, and the committees will share CCI physical and financial progress at monthly meetings of VDMCs
» Initiation of the project activities as design and plan by VDMC under supervision of Field Engineers
» Capacity building of VDMC office bearers in record keeping and financial management
» Selection of both skilled and unskilled labor from the respective village for work based on their willingness and ability to work
» To ensure the safety and security at work place the RSP field supervisors will provide on job training to the workers for the safe use of tools and also the respective VDMC will be provided first aid kits to tackle any unforeseen emergencies
» CCI completion certificate will be jointly signed by VDMC and RSP representatives, i.e. VDMC office bearers and Project Field Engineers, Community Mobilizers, and District Project Officer.
» Respective VDMC will procure material needed from the local market and maintain their records in the CCI registers.
» Regular monitoring supervision by the Field Engineers of the work being done
» Data collection and regular reporting on monthly basis
» Submission of Project Completion Report
» District/Taluka (Sub-district) administration will be kept apprised of completed CCI projects handed over to the VDMC

Under community critical infrastructure (CCI) component, a total of 232 CCI schemes in 232 villages in 20 Union Councils in four project districts will be targeted. Depending on the need identified in the DRMP prepared by the VDMC, on an average one community critical infrastructure scheme will be focused in each village as disaster risk mitigation

measures. The Field Engineers will prepare the cost estimates of CCI schemes needed for mitigation measures based on the need identified in the DRMPs and request in the form of resolution submitted by respective VDMC recommended by the Community Mobilizers. The cost of CCI includes labor cost (both skilled and unskilled), material cost and working tools. Under this activity partner RSPs will not procure materials; rather the VDMCs themselves will buy the materials needed from the local market/s and will involve their VDMCs and also hire skilled and non skilled workers locally. In this way most of the project money will be injected in to the local economy and would not affect prices through changing the demand and supply equation. The detail procedure for the release of installments to VDMC and detailed cost estimates are given as Annex-5 with this proposal. The average cost per CCI is estimated at PKRs.). RSPs CBDRM Field Engineers will continuously support the respective VDMCs during the construction phase. After the completed of proposed project activities the respective VDMC will submit and completion certificate dully signed by the community mobilizer and Field Engineers and counter signed by the District Project Officer on the format attached as Annex-9. District/Taluka (Sub-district) administration will be kept apprised of the completion of CCIs handed over the VDMC.

To include the marginalized households and assigning work to these marginalized households and women for implementation of CCIs, the respective VDMC of the village will prepare a list of marginalized households and based on their willingness, they will be engaged in skill and unskilled labor work required for the implementation of CCIs. The Field Engineer and Community Mobilizers will verify this through cross checking their names from list and master roll prepared for skill and

unskilled labor work. The following selection criterions would be used for the selection skill and unskilled labor for the implementation of CCIs through VDMCs.

» Selection of labor for work based on their willingness and ability to work
» Engaging at least 20% women for work based on the nature of project
» At the time of awarding work the VDMC will specifically handover works to women for example carrying of material, cleaning of water reservoirs, labor supervisors etc that can be easily managed by women through assigning them work in separate women groups or women work day or may be in joint groups where socially possible depending on the willingness of women.
» To ensure the safety and security at work place the Field Engineers will provide on job training to the workers for the safe use of tools.
» Putting in place transparent and efficient systems for hiring, monitoring of work done and payments:

Hiring system

The skilled and unskilled laborers will be selected by VDMCs and they will be compensated for the labor provided. The VDMCs will prepare list of potential laborers who are willing and able to work on potential CCIs projects, and from this list hire labor for CCI implementation.

Unskilled labor

» At least 20% of the employed unskilled labor will be women based on the nature of work (works require less strength that is material carrying, cleaning of water reservoirs etc)
» The women headed households/

households with disabled person would be given preference as unskilled labor

» Individuals between age 18-50 will be hired
» The unskilled workers would be paid at the rate of Rs.350 per day
» One person per household will be hired for a maximum period of 21 days
» The persons from fully damaged households will given preference
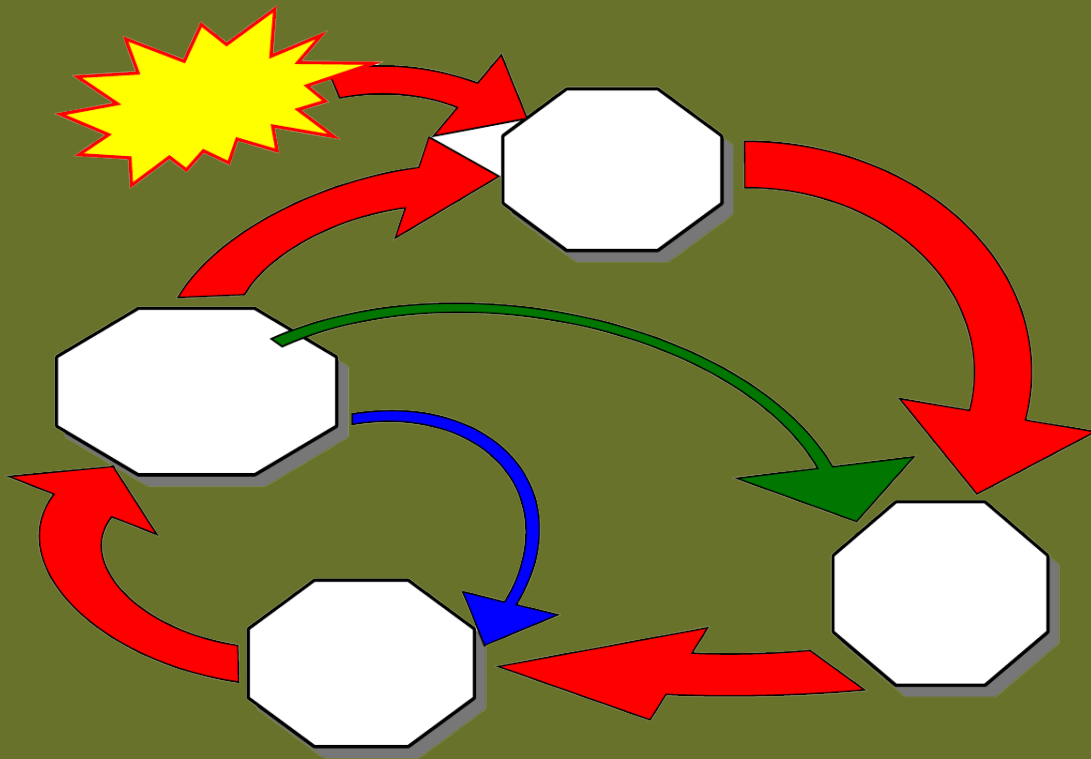» All unskilled labor will be from the respective village

Skilled labor

» The number of skilled workers needed will be finalized by the Field Engineer as per project requirement
» The skilled workers would be paid at the rate of Rs.600 per day
» Local flood affectees skilled workers would be preferred
» In case of non availability of skilled person locally then persons from nearby villages would be preferred

Payment Mechanism

» • VDMCs will prepare master role on daily basis and record the attendance of the laborers and get their signature/thumb impressions on the master role
» • These master role and amount of work done would be counter verified by the Field Engineers
» • Payment would be made on weekly basis by VDMC from VDMC account to laborers based on the number of working days as mentioned in the master role, after approval by the project implementing committee and approval by the Field Engineer. Laborers will sign an acknowledgement receipt upon receiving payments from VDMC

Chapter 10

Participatory
Monitoring and Evaluation

Participatory Monitoring and Evaluation

Objectives

To disseminate the clear understanding on how to review the progress and support the decision-making and management system at Village and UC level Disaster Management Committees.

Contents

» Introduction to Participatory Monitoring and Evaluation
» Recommended Steps for Participatory M&E
» Most Significant Changes (MSC)

Methodology

» Power Point Presentations
» Group discussions
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will be two Hours; which will include a lunch break and energizers

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to Participatory Monitoring and Evaluation

Expected outcome

Participants will have clear understanding on how to review the progress and support the decision-making and management system at Village and UC level Disaster Management Committees

Extra reading material and sources

» USAID Tahafuz CBDRM Toolkit
» Handouts
» www.adpc.net
» www.ndma.org.pk

Participatory Monitoring and Evaluation

Participatory monitoring and evaluation (PME) involves the local community, development agencies, local authorities and other stakeholders in measuring the progress made, and identifying necessary follow-up actions. Harmony among all the groups in PME is an important factor for success!, This is a communication system in which information flows amongst all the people involved in the project: the community, the implementing staff and the support agency, concerned government agencies and donors. Participatory monitoring and evaluation (PME) involves the local community, development agencies, donors and other stakeholders deciding together how progress should be measured and what actions need to be taken as a result of this analysis. This approach assumes that all concerned parties need to know how effective the project efforts have been. It may be challenging, because it encourages people to examine their assumptions on what constitutes progress and to deal with contradictions and conflicts that may emerge.

Principles of Participatory Monitoring and Evaluation

There are 4 broad principles at the heart of PME:

» **Participation:** Multiple stakeholders participate in PME. These may include beneficiaries, project or program staff at all levels of the implementing organization, researchers, government agencies, and donors.

» **Learning:** The emphasis is on practical, or experiential, learning. Participants

Monitoring

» Monitoring is the systematic collection and analysis of information as a project progresses. It is a continuous process to check how activities are progressing, whether the project is on track or not, and if responsible persons doing are their tasks properly.

» Monitoring helps organizations track achievements by a regular collection of information to assist timely decision making, ensure accountability, and provide the basis for evaluation and learning.

Evaluation

» Evaluation is the comparison of actual results to planned objectives in order to assess whether the objectives have been achieved or not, or whether the activities of the project are successful or not.

» Evaluation often looks at: effects to the beneficiaries, effectiveness, relevance, sustainability and replication of the activities. Evaluation activities are periodic (annually, mid-project, end-of project, post-project)

» M&E could use different methods depending on quantitative (numbers and charts) and/or qualitative indicators (people's knowledge, attitude and behaviour).

» The evaluation process needs to provide reliable and trustworthy information, offering provides inputs and lessons learnt for the decision-making process of communities and related agencies.

gain skills, which strengthen capacity for planning, problem solving, and decision making. They also gain a greater understanding of the factors or conditions

that affect their project, reasons for successes or failures and why alternates may be tried.

» **Negotiation:** PME becomes a social process for negotiation between people's differing needs, expectations, aspirations, and visions.

» **Flexibility:** There is no one way to do PME. It is flexible and adaptive according to project-specific circumstances and needs

Under USAID Tahafuz CBDRM Project, the main objective of the participatory monitoring and evaluation (M&E) is to review the progress and support the decision-making and management system. Participatory monitoring has the following purposes:

» To know whether or not implemented activities achieve the planned objectives. What can be done to better achieve the planned objectives?
» To measure the process of achieving objectives, performance, efficiency and impacts.
» To develop a feedback system that encourages regular learning and sharing among communities and stakeholders for better implementation in the future.

Expected results

» Disaster risk reduction measures are implemented effectively, and in a timely manner.
» Accountability is applied and helps to improve the management and decision-making system.
» Community members' skills in planning, problem solving, and decision making are built up. For government agencies and related stakeholders, qualitative

information and feedback systems are obtained to provide information on the progress and results of activities. They also gain a greater understanding of the factors or conditions that affect their project, reasons for successes or failures and why alternatives may be tried.

Principles

» Ensure the meaningful involvement of community members, government agencies and related agencies, right from the stage of setting M&E indicators.
» Participatory M&E should emphasize practical or experiential learning and encourage regular sharing and feedback among stakeholders on process and results.
» Participatory M&E empowers communities, building their capacity and creating local ownership.
» Participatory M&E should be flexible and adaptive to fit local circumstances and needs.

Further Steps and tools in participatory monitoring and evaluation are described below:

Recommended Steps for Participatory M&E

Design M&E plan and set up the M&E system includes identifying what information needs to be collected given available human and financial resources, how will this information be collected, who will collect, analyse, and use the information. Setting up the M&E system with a participatory approach builds stakeholders' understanding about the project and starts creating a learning environment.

Collect data and information: Select appropriate methods and tools to gather

information, qualitative and quantitative and individual versus groupbased. Such as formal surveys, structured or semi-structured interviews, group discussions, direct observation and case studies. The choice of method depends on the nature and scale of the project, the type of information required, and the frequency, ease and cost of collection.

Analyze data: Process, consolidate and analyse qualitative and quantitative data. This requires data cleaning, organising and coding to prepare the data for analysis.

Document, communicate and share findings: This includes reflecting critically (on experience and information) to improve action. Lessons are drawn and best practices are shared with various stakeholders within communities, government, and NGOs to promote the CBDRM process and approach.

Methods and tools in participatory M&E

Participatory M&E helps stakeholders evaluate the performance of CBDRM activities. The basis to decide what to monitor and evaluate, is to go back to the objective of the activities/plans/ strategies that have been implemented and see how this was done.

Some basic M&E methods can be applied depending on quantitative and/or qualitative indicators. Quantitative indicators can be measured and be related to quantity under numbers and charts. Qualitative indicators can not be measured by numbers but information is gathered through materials such as minutes of community meetings, observation or group discussion reflecting people's knowledge, attitude and behavior. Examples about M&E methods are: Observation and participant observation, Interviews with key persons, Focus

Most Significant Changes (MSC)

The most significant change (MSC) technique is a form of participatory M&E, in which many stakeholders are involved both in deciding the sorts of change to be recorded and in analysing the data. MSC focuses on monitoring intermediate outcomes and impact. The method uses one simple question to collect stories about most significant changes: "Looking back over the last period [month, quarter, etc.], what do you think was the most significant change in [particular domain of change]? Domains of change include changes in: living conditions of local people, capacity of government officers and other stakeholders, people or the areas of work the project has addressed.

Answers are stories of who did what, when and why it is significant. When a group is involved in MSC, the next question could be: "Among all changes, what is the most significant change" Recommended steps for conducting MSC contain at least these following steps:

» Introduce MSC to a range of stakeholders and foster interest and commitment to participate (local people, community management committees, project staff, government officers, etc.). And discuss to define the domains of change and reporting period.
» Collect stories about significant changes with above questions.
» Related stakeholders select the most significant stories, according to defined domains of change and agreed criteria. Stories are analyzed and reviewed through levels of authority.
» Record, document, report and feedback these stories to related stakeholders.

Group Discussions, Questionnaires and surveys, Monitoring with specific indicators.

Direct observation:

» This is the most popular tool to collect useful and update information from observation. From direct observation, the evaluator could use results as inputs to develop realistic decisions for improving the situation or as assumptions for deeper investigation. Observers will ask herself or himself: "What do I see?" or "What do people do?", "Is the planned activity happening". Direct observation is also called "participatory observation".

Interviews with key persons:

» The evaluator(s) ask key persons (someone who is expected to know more than the average person about what is happening, or who understands or can explain it better) a number of questions about what is happening, and why it is happening (or not happening)

Focus group discussions:

» This method uses a small group of people to gather information, clarify some issues or collect opinions over one topic. Focus groups are also used to build consensus. This method is very useful in M&E for collecting opinions about changes, the quality of the services delivered by some providers and helps to address areas for improvement.

Questionnaires and surveys:

» This method is used to get information from a large group of people by asking the same questions and often uses analytical tools for data processing. Participants will fill in the questionnaires themselves or there is one facilitator to give the question and note down the answers.

Monitoring with specific indicators:

» For this method, the M&E person collects data on specific items. The purpose is to get information about these specific data for the whole local area, or to get it for different stages (e.g. before and after the project was implemented). Depending on using indicators for M&E or not, there are also some popular participatory M&E methods and tools.

Log Frame

From the LogFrame, there will be indicators for monitoring and evaluation.

Chapter 11

Family Level DRR Measures

Family Level DRR Measures

Objectives

To introduce and disseminate the clear understanding on taking Family Level DRR Measures at Households level to tackle the DRR issues and come up with solutions.

Contents

» Family Level Disaster Risk Reduction Measures
» Basic Survival Kit
» Measures for availability of food during disaster at household level
» Measures for availability of water during disaster at household level
» Measures for availability of health during disaster at household level
» Measures for availability of Shelter during disaster at household level

Methodology

» Power Point Presentations
» Group discussions
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will be two Hours

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to Family Level DRR Measures

Expected outcome

Participants will have clear understanding on how to take Family Level DRR Measures at Households level to tackle the DRR issues and come up with solutions.

Extra reading material and sources

» USAID Tahafuz CBDRM Toolkit
» Hand Book on Disaster Preparedness *by Red Cross*

Family Level (Personal) Disaster Risk Reduction Measures

Preparing for a disaster begins at the individual and family level. Government agencies will respond to community disasters. However, emergency response teams may be overwhelmed and may not be able to provide immediate care to all who need it. Disaster affected families may be on their own for hours, even days, after disaster strikes. Families can - and do - cope with disaster by preparing in advance and working together as a team. A rule of thumb is that families should be prepared to sustain family members for up to seventy-two hours without external help. Families must have food, water, and medical supplies for minor injuries, along with a family disaster plan to prepare for any type of disaster. Disaster preparedness at the family level must be viewed as a continuum progressing from the socialization period where safety measures are instituted and taught in the home with family members adhering to safe practices; planning for, and responding appropriately in the event of an emergency. The core message of the family level disaster preparedness is the Family Disaster Plan. Here are the four steps people can take to prepare for any type of disaster.

Step 1: Gather information

Families should gather following information by contacting local union council or voluntary organizations (such as Islamic Relief) or any other organizations responsible for disaster management:

» What disasters are most likely in your community?
» How would you be warned?
» How should you prepare for each?

Step 2: Hold a family meeting

Family members should get together to share and agree on the following issues and talk about the steps they will take to be ready when disaster happens in their community.

» Discuss the types of disasters that could occur.
» Explain how to prepare and respond.
» Discuss what to do if advised to evacuate.
» Works together to help children or other dependents understand the procedures.
» Practice what have been discussed.

Step 3: Taking action

Each family member, regardless of age, can be responsible for helping the family be prepared. Activities can include posting emergency telephone numbers, determining escape routes, assembling disaster supply kits, taking first aid courses etc.

Step 4: Practice and maintain the plan

The final step emphasizes the need to practice the plan on a regular basis so that family members will remember what to do when disaster strikes. Whatever the crisis - hurricane, fire, earthquake, tornado or flood - some thought and action before the disaster hits can usually help family members react wisely. Families working together to prepare for the problem will cope better than those who do not take precautions. Following tips will help the family members to take better preparation before any disaster hits and also stay safe during a disaster:

» Choose a place for the family members to meet after a disaster in case they are separated when a disaster happens.
» Choose a person outside the immediate

area to contact if family members are separated. The contact person should be someone live far away so that they are not affected by the same emergency.

» Know the locations of the nearest emergency, fire and police stations.

» Learn community s warning signals, what they sound like, and what everybody should do when they hear them.

» Learn first aid and CPR.

» Know where to find shutoff valves and switches.

» Learn how to shut off water, gas, and electricity valves/switches at home.

» Keep a small amount of cash available.

» Conduct earthquake and fire drills once every six months.

» Make copies of the vital records and store them in a safe place.

» Make sure family members know all the possible ways to exit the home. Keep all exits clear.

» At least once a year, have a meeting with family members or housemates to design and/or update a plan for how each person will respond during an emergency.

» Make/update a list of key addresses and phone numbers and ensure that each family member has a copy. Remember to caution everyone that the phone should only be used during an emergency if there is a pressing need to contact the police,the fire department, emergency medical personnel, utility companies, children s schools, etc.

» Discuss each person s fears and ways of minimizing these fears through plans and strategies

Helping Children to Prepare for and Response to Disasters

» Floods, fires, or hurricanes frighten everyone, but for a young child it can

be extremely threatening. A child does not have the same coping abilities that an adult has. Extra understanding and patience are usually necessary when a disaster occurs. Older children can better understand what's happening.

» Talking, practicing, and actively preparing together will help children understand strange occurrences such as hurricanes.

» Read news stories of family or community problems and emergencies. Talk over how your family would handle the situation. This gives your children the time to think out and plan actions for real life crises.

» Involve children in preparing for and carrying out emergency plans. All children need and want to carry out important roles. This helps them feel a part of the family and prepares them to cope with later situations.

» Follow the suggestions or public warnings of emergency services for the care and safety of your children. Awareness of possible problems and quick action may prevent injuries and other difficulties

Once families are out of physical danger, they may be surprised that children are still afraid. It is especially important for parents to continue to provide emotional support for their children.

» Remember that children mirror their parents' anxieties. Be calm to reduce your children's fears.

» Reassure children that you are there and will look after them.

» Take something familiar such as a favorite toy or book into new situations like shelters or friends' houses. This helps a child feel more secure.

» Listen to what children tell you about their fears and what they think have happened. Encourage them to talk.

» Explain what happened in the disaster,

listen and explain again, when children ask questions.

» Spend a little extra time with children before bedtime. If a child comes out during the night, reassure her or him that you are there. Leave the child's door open and a nightlight on.

» In a crisis a child may manifest very childish ‘ behavior, such as bed wetting, thumb sucking and clinging to parents. These are signs of anxiety and are usually temporary. Try not to focus on these behaviors and do not punish children who act this way.

» Most children are not capable of understanding the magnitude and severity of the situation. Be understanding and patient.

» If your child's behavior appears unusual, he or she may have lost something, maybe a pet or favourite toy. Ask the child, regardless of age, what he or she misses. Discuss the child's feelings and if possible try to replace the lost belonging

Children who have been through a disaster are afraid of being separated from family and left alone. Parents should never leave children alone and should avoid any separations, even going to the store or the damaged area. If you must leave children with friends or relatives, follow the steps below to reassure them.

» Let your child know how long you will be away.

» Let the child know how often you will be in touch with him or her.

» Try not to let the child know you will be away until you know where both you and they will stay. This will prevent the child from worrying or brooding over your absence.

» Contact your child frequently and as regularly as you promised.

Staying With Other Families during Disasters

Many families generously offer their own home and food to neighbors and friends who have lost their homes during a disaster. To avoid misunderstandings or tension, remember these points.

If you are a guest

» Do not insist on being involved in everything. Do allow your hosts their privacy and normal routine.

» Respect parents decisions. Avoid interfering with the discipline of your host's children.

» Maintain your own routines and activities. Try to live your own life regardless of how difficult that is in the present situation.

» Whenever possible, limit your stay to one week or less. A week is long enough to be living with another family.

If you are a host

» Help your guest find a way to contribute to the running of your household.

» Be patient and understanding. A person experiencing disaster is usually filled with fears and may be very upset and tense.

Basic Survival Kit

The Red Cross recommends following basics to stock at home; the quantity will depend upon family size and profile;

» Water
» Food
» First-aid supplies
» Clothing and bedding
» Tools and emergency supplies
» Special items
» Candles, Matches and Extra sets of batteries

» Cash
» writing pad and pencils/pens

Following are the few **suggested measures;**
» Store your kit in a convenient place known to all family members.
» Keep items in air-tight plastic bags.
» Change stored water supply every six months so it stays fresh, and replace stored food every six months.
» Re-think your supply kit in light of changing family needs at least once a year.
» Replace batteries, update clothing, etc.

Maintain and practice your family emergency plan regularly at least annually. Choose something to be your family's reminder to talk about disaster preparedness. Family based DRR plans while focusing upon multi sectoral perennial issues, proposes inventive solutions which can be implied both at community and household level. The following table gives overview of short term and long term solutions focused around DRR.

Short and Long Term solutions

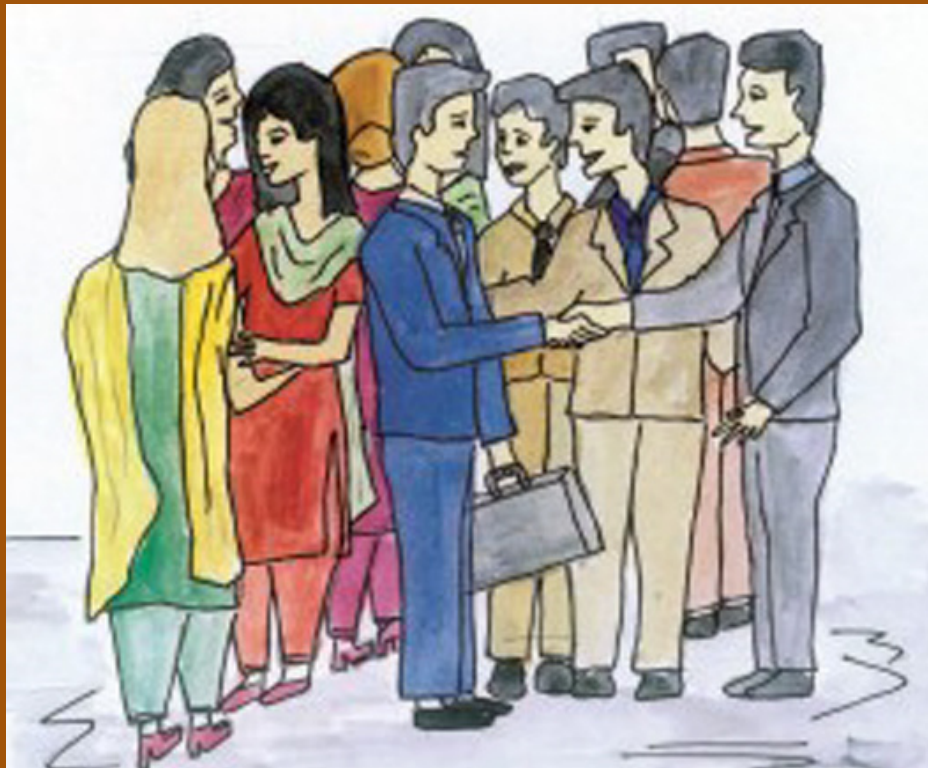| Sector	Likely effects of drought, flood, cyclone etc. on:	Yes	No	Quick solution	Long-Term solution
food	Food/seed stored at home			Providing resistant reservoirs/boxes for food and seed	Construction of disaster-proof stores outside the house
	Community stores			Up-grading of existing stores	e.g. proper construction and commercial use
	Standing crop			e.g. distributing appropriate seed	Building dikes, irrigation systems, enhancing organic soil matter, bio-diversity
	Wild vegetation			Distribution firewood saving stoves, community agreement to refrain from charcoal production	e.g. enclosures, nature reserve
	fruits			Training by local people on how to use local plants	e.g. distribution of seedlings tree
	Animals/animal products			e.g. heifer approach, elevated pastures against floods, water catchment water stores	Genetic improvement of stocks, livestock-farming combinations; improvement of pastures
water	Water quality			e.g. providing filter	Reduced garbage, reduced pesticide application, sewage treatment, latrines
	Water quantity			e.g. storing water bottles	
	Tap water				
	wells			Plastic sheet to cover wells	e.g. properly raised side walls
	Reservoir at home			e.g. plastic tanks	Cement floor surrounding the house plus cisterns; iron sheet instead of thatch
	Bore holes			Proper maintenance, limited numbers of users	Recharging ground water tables
	Water catchment			Avoid overgrazing in the surrounding areas, proper de-siltation	Controlled pasture management, experiments to reduce evaporation
	spring			Spring user groups in control of use	Environmental protection of water catchment
	ponds			No litter, only proper use	e.g. raising embankments
	Water holes				
	Rivers/brooklets				e.g. sand dams
	Water transport				
health	injuries			e.g. distribution first aid kits/mock drill	Increase number and qualification of trained health workers
	Contaminated water			e.g. bottled water stores	
	Contaminated food			Testing of food and awareness-building	Biological, sustainable food production
	Malnutrition			e.g. training/awareness	e.g. improved farming
	Poisonous/dangerous animals/insects Hygienic condition Defecation Heat stress/cold stress Access to clinic/doctors			e.g. distribution of mosquito nets e.g. training/awareness Washing hands	Drying out of water holes and other breeding places; replication of diseases and beneficial organisms against pests e.g. pit latrines e.g. shade trees, proper construction design Lobby government
shelter	Collapsing houses			Supply of construction material	e.g. construction of shelter training on house construction
	Falling trees			Observation of health of trees,	e.g wind break forest, mixture of varieties
	fire			e.g. improved stoves	Fire fencing surrounding forests
	flooding			Early warning	e.g. raising plinths, shelters, mounds
	Cooking facilities				

Women and children

Women and children required special attention while developing family level DRR plans, recent study identified following gaps which needs to be considered in development of plans more gender sensitized

Phase and activity	Areas of vulnerability
Food distribution,	Women may be unwilling to come forward to receive food and other supplies
WASH activities	Restrictions on mobility, queuing for long hours outside with men
	Possible harassment, particular if travel required
	Possible abuses of power over supplies
Phase and activity	Areas of vulnerability
Emergency shelter/ camps	Threat of physical violence as a result of living in close proximity to unknown men.
	Threat of sexual violence as a result of living in close proximity to unknown men.
	Psychological/emotional abuse with increased levels of exposure leading to harassment, intimidation, humiliation, forced isolation, stalking, unwanted attention, remarks, gestures or written words of a sexual and/or menacing nature, destruction of cherished things.
	Trafficking and Kidnapping of women and girls as a result of increased exposure.
Increased financial pressure due to disaster	Forced and early marriage
	Trafficking
Phase and activity	Areas of vulnerability
Emergency search and rescue	Women may not have left their homes or been away from their families before
	Women do not have the same life skills and levels of independence
	Little access to information
	Women unwilling to leave the house i.e. during floods where they are more exposed, particularly in more conservative areas
	Women may not be able to travel alone due to harassment
	Mobility restricted due to young children, elderly dependents, cultural reasons, security

Trainers Tips: Keeping in view the local situation, trainer should communicate to participants about Basic Survival Kit and family disaster preparedness measures accordingly.

Chapter 12

Disaster Risk Communication, Advocacy and Gender Mainstreaming

Disaster Risk Communication, Advocacy and Gender Mainstreaming

Objectives

To introduce the different concepts of Communication and Disaster Risk Communication at Community Level

Contents

» Communication Skills
» Risk Communication , Disaster Risk Communication
» Advocacy for DRR and Networking
» Basic Concepts of Gender and Development and Gender/women vulnerability

Methodology

» Power Point Presentations
» Group discussions
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will be three Hours

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to Communication and Disaster Risk Communication at Community Level
» Video documentaries

Expected outcome

Participants will have clear understanding on different concepts of Communication and Disaster Risk Communication at Community Level

Extra reading material and sources

» USAID Tahafuz CBDRM Toolkit
» www.adpc.net
» www.ndma.org.pk

What is Communication?

Communication is most important aspect before, during and after disaster, effective communication can play significant role in saving lives, assets, and livelihoods, Communication is an interactive process through which a person can convey his/her thoughts, views and feelings to others. Interaction means two-way communication in which a person does not only act but also expects a certain reaction. For the layman that would mean, whereby a person not only sends, but also receives and understands the message. Therefore communication always has a purpose, the aim is thus to achieve that purpose. Communication can be categorized into four types:

1. **Intra personal communication:** A type of communication where a person interacts with him/her self. Intra personal communication is thus, an intrinsic form of communication.

2. **Inter-personal communication:** A type of communication where the interaction is taking place one on one or amongst a small group of people. It is one of the most common and thus highly important forms of communication. It is used by organizations; success of management performance is largely dependent on an effective interpersonal communication.

3. **Inter -group communication:** This is where interaction takes place amongst different groups.

4. **Mass communication:** This type of communication is where a large body of persons have to be addressed.

Types of Communication Stimuli

Communication stimuli can be broadly classified into types, namely Verbal and Non-verbal communication:

1. **Verbal Communication:** These parts of communication words are used to convey the message to the receiver. Here the message in conveyed in the form of a language that can be in spoken or written form. the use of verbal communication alone is not sufficient where one wants to convey emotions and feelings, unless it is combines with non-verbal communication.

2. **Non-verbal communication:** It is the form of communication that is often used in combination with verbal communication, but is ignored believing that it is of little consequence. Non verbal communication includes a series of physical gestures such as facial expressions, sign and general gestures, body movements, use of colours eye contact, use of tone sound etc.

It is important to recognize the significance of non verbal communications in a normal inter personal communication; the share of verbal and non verbal communication is about 5-10% verbal and remaining 90-95% is non verbal. Team leaders can get very valuable information about the satisfaction level of the team by having an insight into non-verbal cues.

The following are some forms of non-verbal communication:	
Body Language:	Body Posture
	Body Shape
	Body Movement
	Eye Contact
	Facial Expression
	Head nodding
Colors:	Age
	Situation
	Sex
	Professions
Sounds:	Arythmetic
	Rythematic
Signs:	Billboards
	Symbols
	Pictures
	Aesthetic
	Symbolic
Smells:	Scents; Good or Bad
Touch:	Objects
Taste:	Good or Bad

Non- Verbal Prompts

- » Affirmative head nodding
- » Appropriate facial expressions
- » Use of silence
- » Open body posture
- » Face the person squarely
- » Uncross your arm and legs
- » Lean slightly forward

Barriers to Communication

A barrier stops all forms of communication. this is the worst situation that canaries amongst a team/ group of persons working together. Barriers do not only occur due to hostility or criticism, they can also occur because of the following factors:

- » Unnecessary criticism
- » Name-calling
- » Diagnosing: Analyzing why a person is behaving that way
- » making values judgments about a person
- » Over praising for instance repeated can in some situation can sometimes block the flow of communication
- » Ordering/ Threatening
- » Inappropriate questioning, like closed ended questions
- » Absence of feedback
- » Environment of the room /place
- » Surrounding atmosphere
- » Weather
- » Filters
- » Advising where none has been sought
- » Moralizing
- » Patronizing
- » Unconcerned attitude
- » Diverting the issue
- » Know all attitudes
- » Judgmental attitude

Thinking and listening

Sounds simple enough, this is one of the highly used forms of communication and the one which is taken for granted the most. Listening is of the highest and dominant form. We rarely perceive its significance, for we often associate communication with the sending of a message, thus with the opening of our mouths. Listening is one of the skills that none receives any formal training for, whereas reading and writing and spoken mannerisms are always received in formal education.

The sender of the message must realise that the responsibility of the receiver listening to the message lies with him/herself. The sender first needs to tune into the listening system inherent in the brain. The mind demands order and presentation. Therefore information must coherent and recognisable. In order to introduce new material to an audience, we must allow their brains to hook up into old recognisable patters. When the listener understands the order and logic of your communication s/he pays more attention and tries to comprehend what is being communicated to him/her.

There five main forms of listening:

1. **Ignoring listening:** The listener is in the state of non-attentiveness, as s/he may be preoccupied with another matter and thus is not willing to receive the message.
2. **Pretending listening:** A state when the speaker is at a higher position and listener cannot ignore him/her. S/he pretends to listen where the message is neither interesting nor relevant.
3. **Selective listening:** the rest of the message being ignores the listener only picks up those parts of the conversation that catch the attention or sparks an interest.

4. **Attentive listening:** The listener is able to understand the message and can even formulate any questions he has in relation to the message.
5. **Empathic listening:** This is the highest form of listening. In it the listener does not necessarily agree with speaker; but deeply understands that person emotionally as well as intellectually. This is like being in his/her place while feeling and experiencing with the same intensity.

Filters

Humans are fitted with filters that only allow certain levels of input. There are two types of filters, one, this is fixed and cannot be changed. It is the inherent structure of our sense of organs that limit our capacity to perceive. Nature has placed a limit on our ability to see, hear or feel it is known as the physical filter. The other filter changes with the input of knowledge, expectations, past experiences and how we view things is known as the psychological filter. All our life we experience things and thus keep changing our psychological filter. These perceptions greatly influence the manner in which we communicate with others.

The influence of the filters may be:

» **Physical filter:** The inherent structure of our sense organs (our filters) limit our capacity perceives. Nature has placed a limit on our ability to see, hear or feel. For example; a normal human can only hear frequency range from 20Hz to 20,000Hz, all frequencies higher or lower than this are filtered out. Similarly we can only see a small brand from this infinite spectrum of colours from infrared to ultraviolet, while our sensory organs filter out the rest.

» **Psychological filter:** Our attributes expectations and past experiences influence what we perceive and how we view things. We may all see the same thing but the manner in which we it is different. Perception is not a passive state; it is an active process by which we interpret according to our perception and our experience. All our life we experience things and keep changing our psychological filter. These perceptions greatly influence the way we communicate with each other.

Planning effective messages

We can reduce distortion greatly by planning and taking care to reduce interference. Seven simple steps are listed for sending effective messages.

» **Know your target audience:** whom do you want to change? How will you reach tem? Have you clearly defined your audience?
» **Have clear objectives:** What do you want to happen as a result of your message? How will you know when it happens? What will you measure?
» **Work for approval:** How can you get your selected audience to choose your message as opposed to all others to which they have been exposed?
» **Be comprehensive:** how can you get your audience to understand your message in ways that are advantageous to you or your group? Do you want to be deliberately unclear? Do you want to include jargon? Big words? What does your audience expect?
» **Work for acceptance:** how can you convince your audience that you are credible? Believable? Who should deliver you message? What media should you use? How can you use the tendency of

an audience to believe what credible communicators tell them?

» **Work for recall:** how can you get your audience to remember to your message? can we associate our message with something else? Can we use repetition? Can we use a number of channels?

» **Review and re-plan:** Is your message doing the job you intended it to do? Are you achieving your objectives? If not, why not? Do you need a different message? Do not continue to use messages that are not accomplishing the purpose for which they were intended.

Distortion

This is an undesirable change or interference of the communication, it can occur because of either internal or external sources. Here unlike the barriers mentioned before the flow of communication is not blocked, but undergoes change i.e. distortion.

Distortions can occur due to:

» A very long chain of transmission; the message is passed on via a long list of people. The first person conveys the message to the next person, /he conveys the message to another, then it is conveyed to another and so on until this starts off a chain of transmission. This chain only comes to an end when the last person, for whom the message was actually intended, receives it.

» Messages are very long, so they become difficult to remember.

» A message which is not organised properly or is too complicated.

» Feedback to the message is either unavailable or has not been supplied on time.

» The receiver and the speaker do not have the same frame of mind/ or their minds are not set on the same topic

» Improper media or medium.

» Where the speaker and the listener do not share the same perception.

» Speaker fails to ensure that the message has reached the listener, example: the speaker is in a hurry and thus does not pay attention to the listener.

Methods for Reducing Distortion

Distortion can be reduced by keeping the following points in mind and by remaining mindful of the fact that distortion can play havoc with a message:

» Increase the use of feedback

» Increase repetition of the message

» Increase similarity and familiarity between the source and the receiver

» Increase familiarity of the receiver with the topic

» Keep the message short

» Improve the sequence of the message and organisation

» Reduce the number of links in the chain of transmission

» Place your elf in the mind frame of the receiver and see whether it makes sense to you

» Substantiate a verbal message with a written one later.

Rules for Feedback

Feedback is one of the single elements which can greatly affect the process of communication. Feedback is a way of facilitating that a person understands the impact of his/her behaviour on others.

It is most effective when the following criteria are followed:

- » **Descriptive:** Always describes as exactly as possible, does nor judge nor pass judgement. Last the person receiving the information form his/ her own mind
- » **Specific:** It is specific rather than general. In feedback only specific instances are referred to rather than general issues. General feed back is of no help for it only creates ambiguity.
- » **Requested:** Always furnish information when it has been requested. Feedback is heard only when it has been asked for.
- » **Useful:** Pass on useful information which is of relevance to the listener; information which is of value to the receiver is always heard.
- » **Timely:** It is best to provide information as soon as the event has taken place.
- » **Accurate:** It is a good exercise to ask a person to repeat in his/her own words of that s/he has heard. This is of particular importance in a conflict situation, for one can always clear any misunderstandings.
- » **I-Statement:** Speak for yourself say; "I mean this," not "We are saying this."

What is Risk Communication?

"An interactive process of exchange of information and opinion among individuals, groups and institutions, often involves multiple messages about the nature of risk or expressing concerns, opinions, or reactions to risk messages or to legal and institutional arrangements for risk management"

(www.adpc.net)

Risk Communication is popularly known as public awareness or public education. It is a very common strategy in risk management. Public awareness aims to increase the awareness of communities and other stakeholders about risks and protective actions. However, the traditional top down approach

to public awareness has many limitations. Therefore it has not proved very effective. Considering the limitations of the traditional public awareness approach, the practitioners recommend the new approach, called Disaster Risk Communication. This is important to know that how it should be implemented. The word communication is derived from Latin; "communicare", meaning common, to share, indicating a process having joint action as its purpose. To communicate means sharing visions, objectives, attitudes, knowledge, information and opinions. Communication is a continuous process of coding, decoding and interpretation.

The stakeholders or actors in risk communication are: government, local authorities, the private sector, scientific organizations, employers and employees, the news media, civil society organizations, environmentalists, at risk groups, individual citizens and those whose actions induce risks. Risk Communication is vital to ensure that stakeholders agree on different risk management measures. Joint action is an absolute must in the disaster risk management framework. Disaster risk management actors are present on different levels and represent multiple interests. Planned risk communication ensures that all stakeholders' perceptions and views are heard and considered. Risk communication must help improve transparency of decisions and increase the potential of acceptance of the outcome. Risk communication is different from public awareness. Public awareness is aimed at "educating" the public about the risks, as perceived by a technical agency or experts. Risk communication is a reciprocal process in which different stakeholders listen to each other and form a common understanding about risks, their acceptability and actions needed to reduce risks.

Importance of Risk Communication

»   It is a right of at-risk people to know about the risks they face
»   It helps at-risk people in making informed and sensible choices
»   It ensures legitimacy of the professional bodies through transparency and openness
»   It increases mutual understanding, shared responsibility and participation in decision making by all concerned
»   It develops respect for the opinions and views of others

Objectives of Risk Communication

The objectives of risk communication are to:

»   Facilitate exchange of information in order to understand the nature and perceptions of risk
»   Formulate common approaches to risk issues
»   Support or influence the framing or structure of risk decisions
»   Develop mutual understanding rather than to promote one party's point of view

Risk communication should be based on the systematic planning of information sharing, based on scientific research and social perceptions, to prevent, solve or mitigate the risk problem with customized information (risk messages) for specific target groups. Risk communication is a social process in which different types of communication (i.e. one-way, two-sided or multi-sided dialogues) will be applied depending on the circumstances and the phase of the planning process. The initiative to begin a process of risk communication may come from the community in search of particular information or from risk management-related organizations and experts. The systematic planning approach to

risk communication generally takes several steps, each step referring to decisions. They are:

Policy Formulation

The first step is the policy preparation and development of a communication strategy in which plans are laid out and the role of risk communication is discussed. If insufficient data are available, research must be conducted, or a dialogue with social groups or the community may be necessary.

Designing the risk communication plan

After the formulation of the risk policy and communication strategy, the next phase is the designing of a communication plan. In the plan, the method of communication is defined based on decisions about the content of communication, the source and the channels to be used. The basic tasks in the design phase are to make decisions about which risk communication methods, messages, sources and channels will be used, and what effects are expected. Research is very important in designing an effective disaster risk communication plan. The research involves the conduct of a Participatory Disaster Risk Assessment in order to:

»   Determine the nature of risks and identify the most
»   vulnerable groups which could be the target group of risk
»   communication activities
»   Analyze people's existing knowledge about disaster risks
»   Determine people's attitudes and behavior related to
»   hazards and risks
»   Identify behaviors that need to be changed to prevent or mitigate disasters and/ or their effects

» Determine how people's behavior could be changed
» Identify locally popular channels of communication, which could be used for disaster risk communication activities
» Identify locally influential individuals and institutions, who influence people's opinions

The following criteria are suggested to ensure adequate and responsible risk communication:

» The communication's goal and the communicator's intentions should be clearly described in the risk message
» The risk information must not be misleading. The communicator must be able to demonstrate the correctness of his risk claims
» In case of scientific doubts, the public should be made aware of such doubts
» The risk information must be complete. Do not hide any relevant information
» Be cautious in using risk comparisons and statistical information

Pre-testing

Conduct small-scale pre-testing of the risk messages with target groups in order to get essential information about the content and design of messages and materials. You can organize a workshop with members (small group) of the target group for pre-testing. Pre-testing assists in understanding whether the target group representatives perceive the content, design, and channels of communication as appropriate or they want some changes. During pre-testing and implementation be aware of the side effects that incorrect risk communication may have on the target group/s. For example, a false positive reaction in a low risk area wastes people's money unnecessarily. While a false negative

reaction in a high-risk area could lead to a life and death situation.

Implementation of program

After pre-testing, modify the content, design and channels in the light of target group opinions. Then the implementation of the communication plan begins. Advertisements, leaflets, brochures, theatre, exhibitions, simulations, or films can be produced as per the recommendations of target groups. The campaign can involve a range of activities including the following:

» Distribution of materials to target group, posters, leaflets, brochures, booklets, videos
» Organizing events for risk communication, e.g. rallies, meetings, conferences, celebration of a disaster day or week or exhibitions
» House to house visits to ensure that messages are passed on to other members of the family
» Discussion forums with the target group/s after distribution of materials

Evaluation and Impact Assessment of Program

The assessment of impact of a Disaster Risk Communication campaign is an important step. Objectives of the impact assessment of a disaster risk communication campaign should be established before the start of the campaign. The assessment of a disaster risk communication will be done against the established objectives. The purpose of impact assessment is to establish whether the disaster risk communication project has been effective. This goes beyond a description of what activities were carried out and how much money was spent. Ultimately the assessment should draw conclusions about the worth of

the communication activity to the community (PDRSEA 2, 2004, DRC at community Level).

The systematic planning approach to risk communication may be helpful to increase the risk communication's effectiveness. It implies acting upon empirical evidence about what is and what is not working in communications about a particular risk. Because the context and the circumstances in which risks occur may vary, every stage of the systematic planning cycle must be completed for each risk situation for which communication may be needed. Other considerations are:

» The continued exploration of the psychological factors underlying risk perception and risk mitigating behavior remains extremely important to the further development of risk communication.

» A ground rule of communication is to customize the information to the receiver's needs. This issue has three aspects.

› The information is an answer to questions relevant to the target group,

› It does not try to answer irrelevant or never-asked questions,

› The information must be comprehensible, and not contribute to further confusion.

Disaster Risk Communication (DRC)

Disaster Risk Communication (DRC) aims to increase the awareness of communities and other stakeholders about risks and protective actions. The word communication is derived from Latin; "communicare", meaning common, to share, indicating a process having joint action as its purpose. To communicate means sharing visions, objectives, attitudes, knowledge, information and opinions. Risk Communication can be described as "An

interactive process of exchange of information and opinion among individuals, groups and institutions about the nature of risk, people's perceptions, and actions that can be taken to deal with the risks".

Why Disaster Risk Communication

» It is a right of at-risk people to know about the risks they face

» It helps at-risk people in making informed decisions

» It increases mutual understanding and participation by all concerned

» It develops respect for the opinions and views of others

Assessment of Risk Communication Needs

In the DRC needs assessment we need to find the answers to the following questions:

» What are the behaviors related to hazards and risks?

» What are the behaviors related to hazards and risks that need to be changed to prevent disasters or help mitigate disasters?

» How can we best change people's behaviors?

The key areas of the inquiry

» Hazards/risks

» People's perception of risks

» People's knowledge about hazards and where they get them

» People's behavior at the family and the community level: reaction to warning, preparedness activities, activities during emergency (identify indigenous ways or activities)

» People's information about the

preparedness and emergency and where they get them.

» Authority to issue warning and evacuation at the family and community level.
» People's indigenous mechanism of

information sharing, early warning etc at family and community level.

» People's coping mechanisms at the family and community level (identify indigenous ways or activities).

Data Collection Methods for Assessment of Community's Risk Communication Needs

	Key areas of enquiry	PRA tools	Respondents
1	Hazards • What are the hazards in the community? • When do they happen? How often? How long do they last? • What are the causes? • Who are affected? • Who are the most seriously affected and why? • What are the most serious hazards in the community using these criteria: death, illness/injury, loss or injury of livestock, damage to property, and damage to infrastructure?	Timeline-history of disaster Hazard map of community Seasonality Ranking	Men Women Children
2	Risks • What are the risks or mangers brought about by these hazards? - To life of men, women, children, disabled, elderly? - To livestock? - To property like houses? - To infrastructure like bridges, schools? • What risks are considered most serious? For example, flood is hazard, but drowning is a risk that floods can bring. Or diarrhea is a risk that people face when they evacuate since there is no clean water in evacuation centers.	Ranking Venn Diagram	As per age group but grouped as: Men - children, young adults, adults, elderly Women - children, young adults, adults and elderly
3	People's behaviors • What do they do before and during a disaster at the family and community level?	Listing down of activities	Mix group of men and women
4	Focus on public awareness • Where do you get information about the hazard? Which source or mechanism do they often use? Why? • What do you hear or read about these hazards? • What information do you receive about how to protect yourself from these hazards? • What of the information do you follow to protect yourself?	Ranking Venn diagram	As per age group but grouped as: Men - children, young adults, adults, elderly Women- children, young adults, adults and elderly
5	Authority to issue warning or order evacuation • Who are the most reliable sources of information in the community? • Who do you think should have the authority to give orders to evacuate?	Ranking	As per age group but grouped as: Men - children, young adults, adults, elderly Women - children, young adults, adults and elderly

	Key areas of enquiry	PRA tools	Respondents
6	Common problems • What are the most common problems encountered by the community and the family to reduce disaster risks?	Ranking	As per age group but grouped as: Men - children, young adults, adults, elderly Women - children, young adults, adults and elderly
7	Priority Needs • What are the most common problems encountered by the community and the family to reduce disaster risks?	Ranking	As per age group but grouped as: Men - children, young adults, adults, elderly Women - children, young adults, adults and elderly
8	Recommendations • What are the people's recommendations to reduce disaster risks at the family and community level recommendations directed to government and non-government agencies?	Ranking	As per age group but grouped as: Men - children, young adults, adults, elderly Women - children, young adults, adults and elderly

Once the required information are collected and analyzed, decisions on the information needs of the community can be determined. The information needs assessment will also help in identification of strategies for community awareness raising. This will include understanding of what messages to develop, what methods, and materials to use, what channels to use.

What is Advocacy?

It can be defined as a deliberate planned and sustained effort to advance an agenda for a change. Advocacy consists of organized efforts and actions that use the tools of democracy to establish and implement laws and policies so as to create a just and equitable society. These tools include lobbying, negotiation, bargaining, mass mobilization, civil action (including civil disobedience), court actions and holding of elections.

» Advocacy deals with questioning political power or policy makers and asking them to provide answers to the question of who gets what; how much one gets and how soon?

» Advocacy aims at changing social institutions by helping advocates to gain access and a voice in the decision making of such institutions; and to change the power relationships within and among those institutions.

» Advocates try to persuade and influence decision makers or those with governmental, political and economic power, to adopt and implement public policies that will improve the lives of those people with less political power and fewer economic resources.

» Advocacy resists the unequal power relations such as patriarchy and dictatorship. It questions the existing unequal power relations in society so as to ensure that the poor, the voiceless and those people that have been marginalized or historically left out of the decision making processes are heard and included.

Types of advocacy

Confrontation/adversarial advocacy:

» This is when you tell a policy maker that you went wrong.

» Tactics used under this advocacy method

include; strikes, marches, protests and petitions etc.

Constrctive advocacy:
» is when you tell a policy maker that I have this idea will it work and how can we work together.
» Tactics used include; meeting with policy makers, proposing strategies for change, conducting research and publicising, building alliances with the policy makers

What do you need to know before doing advocacy?

Understand Power (Influence); Power is the ability to create that desired change or effect, especially in situations of opposition. At the tehsil, district or local government level, the people with power include the political leaders, local government personnel led by the DCOs, , and various development partners, NGOs, private sector and public sector. An advocate must therefore understand that:

» Power can be limited, unlimited or shared. The people that do advocacy seek to share the power so that they are involved in the making of decisions that will affect people's lives.
» Power is always changing and it is rarely given or yielded. Power must be won through resistance or struggle and thus the need to constantly engage those people with power.
» Not all power relies on threats, coercion or force, command or having huge amounts of money.

Power can be got through taking strategic actions (such as advocacy) that engage public problem solving processes by being innovative and using people's knowledge, experiences and stories.

Different Forms of Power; There are different forms of power that include:

» **Political Power**- is the ability to control or exercise authority over people or institutions or the ability to influence institutions through which law and policies are made and implemented.

» **Economic Power**-is the ability to control the means and place of production, including working conditions and wages.

» **Social Power**-is the ability to control or influence people in hierarchical or patriarchal relationships in the family and other social contexts.

Sources of Power; In order to effectively influence the PRDP or other power structures at the district level, the women councilors and groups may use any of the five major sources of power that include:

» The power of the people or the citizens' power
» The power of direct grassroots experience or grassroots linkages
» The power of information and knowledge of their local communities and their own situation
» The power of constitutional guarantees or rights
» The power or moral convictions or belief of what is right and just in their communities

Know that Advocacy is Risky

The women organizations and women's groups that will engage in advocacy activities must be prepared to face immediate threats and risks that come from the social change they are advocating for. Right from the start, the women must be made to understand that

there are constant risks to one's life, family or even community or group, when involved in any form of struggle. People with power will not be willing to give it up and it is therefore important to prepare for that struggle. The women should know that usually people who prepare for risks are less intimidated by threats and even violence from those people with power.

Appreciate that Advocacy Must be People Centered

Advocacy should be people centered; and following are the key points in this regard.

» Define their own issues, objectives, and strategies based on their needs and wants, for example is their priority under the CBDRM;

» Identify common issues within the VDMC/UDMC and communities that may be divided by gender, social class and other differences. What actually brings the women or the people in the community together?

» Participate in the entire advocacy effort, which may include providing leadership, strategy development, building relationships with experts and allies, meeting with government officials and other local leaders in the community and participating in discussions, protests or even demonstrations.

» Learn by doing, from both their successes and mistakes – by giving the local people a chance to get involved in advocacy, they will develop the necessary skills, discipline, and deep understanding of the difficult ways in which the political processes work and how the VDMC's DRR Plan is implemented.

» Remain connected-People doing advocacy must work hard to stay connected with and

remain accountable to the local people whose interests they are serving. The UDMC's advocates always ask themselves:

› Are we giving a voice to those people whose voices are not fully heard?

› Are we able to motivate people to become actively involved in the advocacy process?

› Are we taking time to learn from the people's experiences or from the affected groups?

› Are we able to link VDMC's DRR plans to the respective institutions

Build Public Support for your Issue

In order to move the DRR Plans advocacy issues forward, the UDMC members and community must be able to get public support. They must try and find ways of bringing the unconvinced to their point of view. The women need to share their opinions and interests with the community and the general public; and also work with like-minded people or organizations, including the local government structures or NGOs at the national level.

Build Free Spaces Where you can have Safe Discussions

Having safe discussions requires that you develop a culture of listening; a sense of community responsibility and a culture of people's legitimate participation in public argument and problem solving. In the DRR Plan and CBDRM advocacy the VDMC and UDMC's must learn how to organize and share experiences with other people. They should raise those issues that would otherwise be avoided, collaborate and engage with people who are different from them in terms of views or opinions, generation or social class.

Actively Engage the Policy Makers and Policy Making Institutions

Real change can only happen when mass mobilization and other forms of outside pressure exerted on the institutions that need to be changed within the CBDRM implementation structures. The UDMC's members must know what they want and present it to the policy makers in the best possible manner.

Use real life stories to put your issue across

Stories provide a tremendous source of power to both the person telling the story and those listening. Stories help people to make connections between their day-to-day lives and other communities, DRR issues or struggles.

Story telling also assists people to create a culture of participation, active listening and learning. By telling their stories or listening to those told by other people about the CBDRM, the VDMC members will be able to reflect on their own experiences so as to learn from both their successes and mistakes and be able to use the acquired knowledge in future advocacy activities.

Effective Leadership is very important for Advocacy

Advocacy requires leadership that is creative, innovative and supportive to all the people that are involved in the process. For successful advocacy of the CBDRM and DRR Plans implementation the women advocates must rely on a group of leaders that share amongst themselves the different responsibilities.

Effective Leadership for Advocacy

What is Leadership?

Leadership is an active relationship involving continuous contact between the leader and the followers. It is a process that involves bringing together skills, and abilities that are required and are useful to fulfill a given mission. Leadership is achieving results through people and it occurs when there is an objective to be reached or a task to be carried out, and when more than one person is needed to do it. Leadership is about encouraging and inspiring individuals and teams to give of their best to achieve a desired result and it goes hand in hand with power. Leadership is exercised whenever a person influences the behavior of another person or a group of people towards achieving a particular goal.

Who is a Leader

A leader is someone who draws people along; goes ahead of others; shows the way; take initiative; makes a beginning; or directs an action, thought or opinion. A leader understands how to get people to work together, by recognizing their different abilities and putting them to the uses they are best suited for. She or he ensures that all the followers are given a sense of solidarity and responsibility.

Qualities of a Good Leader

A leader is someone who draws people along; goes ahead of others; shows the way; take initiative; makes a beginning; or directs an action, thought or opinion. A leader understands how to get people to work together, by recognizing their different abilities and putting them to the uses they are best suited for. She or he ensures that all the

followers are given a sense of solidarity and responsibility.

» Leaders lead with a Vision- they provide direction to others by inspiring a shared vision and mobilizing the peoples' support and resources to ensure that the group succeeds.

» Leaders model the way-they understand that the best way to influence others is to make a way. They choose to be honest and share their values and principles with the people they are leading.

» Leaders build teams or groups-they work with people with whom they develop their vision and plans.

» Leaders empower others to act-they share with their team members leadership roles and delegate work so as to build their confidence and self esteem.

» Leaders are willing to listen-effective leaders listen to others with empathy and listening makes people feel respected and appreciated.

» Leaders encourage the heart-they believe in empowering their team members and working at their pace to achieve mutual progress. Effective leaders motivate their team members by celebrating their successes.

» Leaders are unshakable-effective leaders do not fear to face challenges.   They keep trying and they believe that one day they will be successful.

» Leaders manage conflict-effective leaders learn how to deal successfully with conflicts. They see conflict as an opportunity to examine and work out difficult situations before they become a barrier to the achievement of their goals.

» Leaders take responsibility for their actions-effective leaders are decisive and take responsibility for their actions. They are willing to be held accountable for the decisions they make and do not seek to blame others for their short comings or failures.

» Leaders engage in personal development-effective leaders know their strengths and their weaknesses and they constantly try to become better leaders.   They build their capacity by reading books, acquiring skills and educating and training themselves and learning from others.

Advocacy for DRR

DRR is often a long-term, low-visibility process that can be overshadowed by a high profile, high-drama, emergency phase. Normally organizations and government agencies may be more ready to support interventions that are highly visible than long-term issues that can seem difficult to deal with. At the national and local level, it means advocating for the enforcement of building codes to reduce the impact of earthquakes, or for better land-use management to eventually reduce the number of localized floods.

When advocating for DRR, the following key messages need to be presented:

» Vulnerable people must be the primary partners of humanitarian and development actors. Solutions that are imposed are rarely sustainable. The people themselves know the risks that they face.

» DRR is cost effective. It will cost less in the long-run, as well as saving lives and mitigating suffering.

» Neglecting DRR leads to more deaths and damage, and pushes more people into poverty. There is a moral obligation to prioritize risk reduction.

» Environmental damage increases people's vulnerability and the frequency and intensity of disasters. A sustainable environment protects communities.

Advocacy for DRR

Advocacy and networking is one of the important element of CBDRM Tahafuz Project, Advocacy is about persuading people to make changes, whether in policy, practice, systems or structures. For RSPs, this means changes that improve conditions for vulnerable people. Advocacy is about speaking for others, working with others and supporting others to speak for themselves. It is a way of taking community voices to a different level of decision-making. In Tahafuz project UDMC will play key role in advocacy.

» Climate change is unavoidable, and the risk of climate-related disasters is ever increasing. The poor, older persons and children are disproportionately vulnerable. We can prepare, and we must adapt.

Advocacy for DRR at community level

» Advocacy needs to be carried out both to and for vulnerable communities. Crucially, though, it must also be carried out alongside them. It is not for the outside agencies to decide what priority issues a community needs to advocate.

» Community concerns must be articulated through the entire disaster management cycle. We must always ensure that the voices of those we want to assist are heard: their fears, their resolve and their aspirations.

» We know from experience that communities themselves want to become partners in reducing risks – in preparing and learning to respond – and are able to do so. Assessment, allows them to determine what they must do to build a safer environment. This process may be straightforward. Assessment will

lead to self-organization, resulting simply in people knowing what to do when a catastrophe threatens urban neighborhoods or rural villages. It may mean digging channels or building simple dykes to divert the rush of water in the rainy season. It may mean planting trees along riverbanks or roadsides as part of preparedness programmes to help check the force of flooding. It may mean securing a water supply or introducing safe sanitation.

» Often, communities can do such things for themselves, without much further assistance, but at times an assessment will point to measures that are beyond their capacity. Support may be needed from local government or another stakeholder, and advocacy may be required to mobilize it.

How to deliver effective advocacy:

As with any other DRR activity, advocacy requires an assessment, a plan and activities that are monitored and evaluated. You will also need resources. The simplest and wisest thing to do is to include an advocacy component in all of your DRR programmes and budget it in. Advocacy should never be an afterthought – something added on when you think you need it. It is an essential supportive element of your toolkit, and your programme needs a budget line for it.

Advocacy Process:

» identifying advocacy issues
» understanding the issues and collecting evidence
» identifying your targets
» clarifying your vision
» tailoring the message for the target audience

» delivering your message

» monitoring and evaluation

Identifying advocacy issues

Various assessment tools including participatory vulnerability assessments, participatory rural appraisals and hazard vulnerability capacity assessments can be used for identifying the advocacy issues. Any of these tools can provide a starting point for advocacy, awareness raising and knowledge-sharing efforts, and can link community voices and concerns to decision-making and resources at the local or national level.

UCDMCs can use the results to persuade stakeholders of the need for DRR interventions and bring local partners and other organizations together to build persuasive advocacy messages. UCDMCs can conduct assessments jointly with other agencies, building relationships and sharing skills to improve effectiveness.

Any tool used by UCDMCs also must identify the root causes of poverty and vulnerability. Many of these causes (for example, poor design and implementation of building codes, land use and urban planning, or embankment maintenance) can be addressed only through government policies or by persuading others to change their behavior. Such issues require advocacy, awareness raising and greater networking with other actors.

Understanding the issues and collecting evidence

Good advocacy is based on strong information, so it is important that UCDMCs thoroughly understand the issue they plan to advocate on. This involves asking questions such as:

» What is the problem, and how big is it?

» What are the root causes?

» What will happen if nothing is done?

» What is it precisely that we need to change?

Identifying your targets

When it comes to knowing who to involve in advocacy, and how, there are no hard and fast rules. It is always important to start by mapping the stakeholders in other words, the people, groups, organizations or systems that are affected by the issue or that affect it. Stakeholder involvement depends on the circumstances. What works in one situation may not be appropriate in another, so trusting one's own judgment may be the best course of action. A good way to identify appropriate stakeholders is to start by asking questions such as:

» Are there people affected whose voice is not heard? If so, what must we do to include them, or to convince them to participate?

» Who are the representatives of those affected?

» Who is responsible for providing services related to this issue?

» Who is likely to mobilize for, and against, our proposals?

» Who can make the advocacy effort more effective through participating, or less effective through not participating or outright opposition?

» Who can contribute financial and technical resources to our advocacy activities?

Clarifying your vision

By this stage in the process UCDMCs will have identified the issue and your target audience. The next step is to ensure that vision is clearly

defined, and to identify precisely what must be accomplished along the way if you are to realize that vision. This means formulating goals and objectives. The goal is the wider vision for long-term change, while the objectives are the specific outcomes that need to be completed in order to bring that change about.

Before UCDMCs put together their advocacy strategy, they need answers to the following questions:

- » **Who** will you ask to do things?
- » **What** will you ask them to do?
- » **Which** specific goals will you want them to achieve?
- » **When** must these goals be completed?

Tailoring the message for the target audience

Once the message and audience have been identified, UCDMC need to think about how to convey that message. Most importantly, UCDMC need to keep it clear and straightforward but make it powerful. Message needs to explain what you are proposing, why it is worth doing, and how it will improve the situation communities are concerned about. It must inform, persuade and motivate the audience to take action.

- » Write a simple statement.
- » Present the evidence.
- » Use a personal story as an example, illustrating the case with a human element.
- » Putt your message into action.

Delivering your message

If there is a need that a particular approach is needed for a specific government department,

often the most effective action is to go and talk to them in a private meeting, or to write to them expressing your concerns. Public advocacy, on the other hand, inevitably involves the media – the primary platform through which the UCDMCs can reach wide audiences. Other ways can include exhibitions, music events, drama, puppet shows, video and other digital forms of communications. Media relations remain a key component of any public advocacy programme, and media can exert influence both on the primary audience and within at- risk communities. UCDMCs must try to identify journalists with special interest in DRR. Other means of delivering messages include:

- » direct interaction with target audiences, including community meetings, conferences, presentations, seminars and workshops
- » printed material, including newsletters, leaflets, posters, brochures and case studies
- » electronic or digital media

Gender and Diversity

The key areas which required understanding of Tahafuz CBDRM Project staff regarding gender and diversity are the key Concept related to Gender i.e. Sex, Gender, Gender Equality & Gender Equity, Understand gender issues in disaster management, Understand the role of VDMCs/UDMCs to ensure Gender and Diversity in Relief, Describe the role of VDMCs/UDMCs to ensure Gender and Diversity in Recovery, Describe the role of VDMCs/UDMCs to ensure Gender and Diversity in DRM, Understand the role of VDMCs/UDMCs to ensure Gender and Diversity in Disaster Management Programmes, this will help them in implementation project interventions in better way.

Key Definitions

Sex:

The biological characteristics that define humans as either male or female. These sets of biological characteristics are not always mutually exclusive, as there are some individuals who possess both male and female characteristics.

Gender:

The socially constructed attributes and opportunities associated with being male and female vary widely from place to place. Gender defines social and cultural expectations about what behavior and activities are allowed, what attributes are valued, and what rights and power one has in the family, community and nation. For example, in one society women may be expected to focus on the family's domestic needs while men engage in the formal paid workforce, whereas in another, both men and women may be expected to contribute to the family's cash income.

Gender equality:

Refers to both men and women having the freedom to develop their personal abilities and make choices without the limitations set by stereotypes, rigid gender roles, or prejudices. It does not mean that men and women have to become the same, but that their rights, responsibilities and opportunities should not depend on whether they are born male or female. Gender inequality predominantly impacts negatively on women and girls, as men tend to have more decision-making power and control over resources than women. Because of this, efforts to advance gender equality need to focus primarily on improving the situation and status of women and girls in their societies.

For example, specific actions may be taken to ensure that women's views and priorities are adequately and directly heard in disaster management committees.

Gender equity:

Refers to fairness of treatment for women and men according to their respective needs. This may include equal treatment, or treatment that is different but considered equivalent. For example, specific outreach strategies may be developed to ensure that relief assistance reaches female-headed households in societies where the mobility of women is restricted. Likewise, general distribution centres may be created or certain livelihood recovery activities may be designed and implemented specifically by and for women.

(Source NCSW, Pakistan)

Women vulnerability and Gender issues in Disaster Management

The relationships between men and women are powerful forces in every culture. The way these relationships are defined creates differences in the roles and responsibilities of men and women. It also leads to inequalities in their access to, and control over, resources (who inherits land or can get credit from the bank) and decision-making powers (who has a voice and sits on community councils and committees). The combined effect of these differences and inequalities means that women and girls, and men and boys face different types and levels of exposure and vulnerability to natural hazard risks and disaster impacts. Gender- based behaviors and stereotypes about what men and women can and cannot do, or should and should not do, can further contribute to gender differences, sometimes with devastating consequences. Yet, attention to gender is consistently one of the weakest
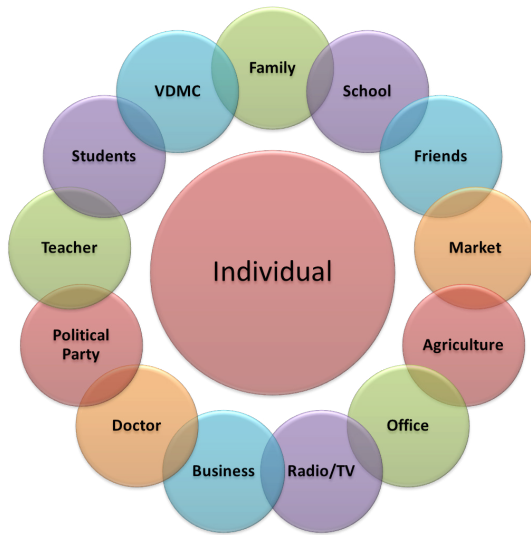
areas of humanitarian response. Women and girls generally tend to be the main victims of natural disasters. A few commonly recorded reasons for higher death tolls among women and girls include:

» cultural constraints on female mobility which hinder self-rescue, for example, women may not leave the home without male permission, they may be reluctant to seek shelter because shared communal facilities do not have separate, private spaces for women or clothing may have been damaged
» lack of skills such as swimming or tree
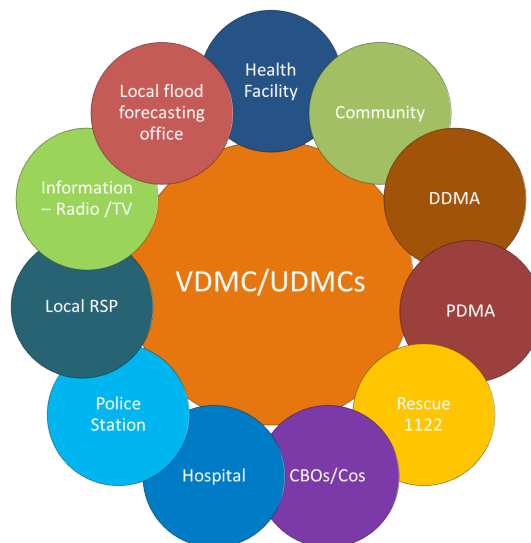
climbing, which are traditionally taught to males
» less physical strength than males, in part due to biological differences but, in some coun- tries, also due to the effects of prolonged nutritional deficiencies caused by less access to food than men and boys.

Poverty is known to be a key factor in the vulnerability of both men and women during hazard events, but there can be gender differences among poor people that further compound the risks. For instance, poor women may have heightened vulnerability to hazard events that occur during the daytime, as many live in unsafe areas and houses and tend to spend more time indoors and near the house than their male relations. As men usually form the majority of poor migrant labourers, their wives and children, as well as older people remaining in the family home, may be more exposed to the impacts of local disasters. Furthermore, there are many instances of women and girls facing difficulties in gaining access to relief or recovery assistance following a disaster, as well as being exposed to demands for sexual favours, rape and other forms of sexual and physical abuse in camps and other temporary shelter arrangements. At the same time, many women's workloads in terms of caring for children, the infirm, the elderly and those with functional limitations or disabilities, rise at exactly the same time that traditional support networks may have been damaged. An increase in underage marriages of girls has also occurred after several disasters in which more women than men died. Men on the other hand, sometimes find themselves in the position of having to assume unfamiliar tasks if the women in the household have perished or become severely disabled in a disaster. Childcare and household labour are two areas in which men may feel they lack skills, having performed little such labour in the past. In

addition to gender-based stereotyping and discrimination, women and men may face further discrimination based on race, ethnicity, age, language, disability, sexuality, class or religion, further increasing their vulnerability.

Gender Based Role and responsibilities of VDMCs/UDMCs in Relief

» Collect data on the age, gender and diversity of the affected population during emergency needs assessments.
» Make certain that procedures for relief registration and distribution do not accidentally exclude women or vulnerable and marginalized groups or individuals, for example households headed by women or the disabled.
» Consult with, and seek feedback from, both men and women to ensure the contents of relief packages actually meet their respective needs and are socially and culturally appropriate. Preferably this should be done as part of disaster preparedness planning and pre-stocking of relief items.
» Ensure Provision of both male and female health personnel.
» Ensure that relief assistance includes items (midwifery kits), and information that meets both men's and women's reproductive health needs, including protection against HIV/AIDS and other sexually transmitted diseases.
» Include counseling on domestic violence when providing psychosocial support. Ensure this support is sensitive to the needs of some men for help coping with changes in their gender roles, i.e. caring for young children after loss of a spouse.
» emergency and transitional shelters and support services (toilets, water supply, lighting) that are responsive to the socio-cultural and economic needs and

preferences identified by both affected men and women, and keep in mind privacy and safety considerations.
» the possible need to protect vulnerable men and women, including those from ethnic minorities or who are older or disabled. Rigorously monitor, report on and advocate for the safety of these groups

Gender Based Role and responsibilities of VDMCs/UDMCs in Recovery

» Support the team conducting the needs assessment to be gender balanced.
» Consult with, and fully involve, women and men from all social and economic groupings in the affected communities when making decisions about the repair, design and location of new housing and community infrastructures, such as water and sanitation facilities and community halls.
» local participation in physical reconstruction, including the hiring of women and providing them with training in construction related skills.
» Provide accurate information on the different roles women and men play in contributing to the household's food security or income, whether as family members or heads of the household, and design livelihood recovery activities that meet the needs of both.
» Support in designing housing, cash or food based assistance (home reconstruction, cash or food for work, cash grants), that provides opportunities for both vulnerable men and women and ensures that those without land title, such as squatters, unregistered migrants, and female heads of household, are not missed. Pay all persons fairly and equally for performing the work.
» Ensure provision of male and female health personnel to meet ongoing health

Gender Integration Issues

Gender issues concerning disaster management.

» Socio-cultural where women and men face different challenges during natural disasters because their roles in society have been constructed differently;

» Gender inequalities in times of disaster as:

› Women have less access to resources;

› Multiple burdens, women are primary caregivers to children, elderly and disabled and women are less able to mobilize resources for rehabilitation; and alleviate their economic burden and more often women's income are considered to be secondary;

› Women are often the victims of domestic and sexual violence after a natural disaster (rape and molestation during rescue effort).

› Lack of opportunities for education for parents preferred to send to school the boys over girls especially in male dominated communities, and for employment as well as promotion in work and occupation where women often face greater handicap than men.

› Less participation in disaster planning and management

› Household inequality where there is unequal sharing of burden of housework and child care.

› Ownership inequality where there is absence of claims to property which make it harder for women to enter and flourish in commercial, economic and even more social activities.

and rehabilitation needs, especially when cultural norms may not allow women to be examined by male physicians, and when women's mobility may be restricted.

» Ensure that recovery assistance continues to include items (midwifery kits), and information that meets men's and women's reproductive health needs, including protection against HIV/AIDS and other sexually transmitted diseases.

Gender Based Role and responsibilities of VDMCs/UDMCs in Disaster Risk Reduction

» Advocate to fully involving women and men, as well as marginalized groups, in disaster management activities and decision making.

» Carry out a systematic gender analysis of the different roles, responsibilities and socio-economic status of men, women and other household members in needs assessments. Make sure that the analysis includes a focus on diversity issues, such as the situation of men and women who are poorer, ethnic minorities, elderly, disabled, etc.

» Build both male and female capacity in activities such as risk mapping to enable gender perspectives of risks and vulnerabilities to be identified.

» Ensure proportional representation of women and men from diverse groups in the decision-making process of community based disaster risk reduction and preparedness activities to ensure the social, cultural and economic gender aspects of risk reduction are being addressed.

» Engaged men and women from diverse groups actively in the planning, design, construction, and maintenance of mitigation works.

» Strengthen existing local organizations that represent women and diverse groups in order to encourage community participation, either in the promotion, planning or implementation of the programme.

» Ensure the full participation of local female and male volunteers in identifying at-risk areas, groups and individuals and in developing community-based early warning systems that use the local tools and knowledge of both men and women.

» Ensure the involvement and engagement of both genders in community-based early warning systems to ensure procedures are sensitive to both female and male needs, including privacy, security and adequate protection of valuable assets like livestock, in communal shelters.

Role of VDMCs/UDMCs for Gender and Diversity in Disaster Management Programmes

» Representatives of women, youth, and children, the disabled, ethnic minorities and migrant groups in damage and needs assessments.

» Recognize that decision-making roles are traditionally male functions within society and that women may require substantial orientation on their responsibilities, training in confidence building and mentoring to be able to fully participate in these types of decision-making

committees.

» Develop partnerships with organizations that represent the interests of these groups.

» Build knowledge about the disaster management skills, capacities and coping mechanisms of these groups.

» Consult with community members and specialists to identify the possible need for designing the activities in specific ways that ensure that these groups have access to the available resources and can participate equally in decision-making.

» Develop strategies that ensure marginalized groups are actively involved in the design, implementation and monitoring of disaster management activities.

» the development of information, education, and communication activities and systems that are designed with and for marginalized groups.

» Consult with project team and other partners to develop progress and success indicators and other ways of assessing the impact of disaster management programming on them as a result of their participation in decision-making and access to resources available.

The following matrix shows detailed guidelines for VDMC/UDMC and other stakeholder's action by major areas of action and phases of disaster in order to build the capacity of women as disaster managers at community level. The guidelines are interdependent. *(Source; Institutional Assessment of Disaster Management Institutes, Pakistan by Sohail Manzoor)*

Phase	Challenges
BEFORE the Disaster	identification of possible evacuation center
	formulation of effective plans by the Provincial Disaster Management and District Disaster Management Authorities.
	Putting mechanisms and resources in place for immediate application of the disaster plans
	effective communication and information dissemination
	need for capacity building of concerned institutions.
	Invisibility of Women as Contingency and Emergency Planners
	• women proposed ideas for disaster management initiatives are usually ignored • exclusion of women in the disaster management planning process
DURING the Disaster	more gender sensitivity
	better temporary shelters and basic needs
	improved communication
	accurate information to be properly disseminated
	safety of families of service providers
AFTER Disaster	need for organized group with clear responsibility
	need for effective communication and
	dissemination of accurate information

Networking for DRR

A network provides a structure that gives members the opportunity to co-operate, collaborate, share experiences, expertise and resources and pull their power together to bring about change. The key idea about a network is in the notion of team:

T   Together

E   Everyone

A   Achieves

M   More

A network provides a structure that gives members the opportunity to co-operate, collaborate, share experiences, expertise and resources and pull their power together to bring about change. The key idea about a network is in the notion of team:

Steps to networking

» Think positively and smile. If you are happy it will be evident, so focus on how you will feel by finding a new friend, customer, employer, employee, investor or partner.

» Know your goal. Be clear about what you want from each event and interaction. Decide how many new people you will meet, which specific prospects you will talk with, and what outcomes you desire from each interaction.

» Have a message strategy. In meeting people you need to make a connection, determine their interests, and establish rapport before delivering your branding statement. This is true whether you are meeting for personal, professional or business reasons. Remember that people choose to be with (do business with and hire) people they like. Learn about them

before responding with your carefully prepared, sincere description of your value.

» Manage your time. You can talk with existing friends a ny time, so treat a networking event as your (and their) opportunity to discover new relationships. Acknowledge your friends and then devote time to being with people you do not already know. Find time in food or beverage lines to meet new people, engaging in conversation when the opportunity arises.

» Hold the sales pitch. If you meet someone interesting who seems interested in you, exchange cards and agree to talk in depth after the event. Networking time is for meeting new people, not for long-winded sales presentations or stories about your personal crises.

» Be respectful. Refrain from speaking during official program announcements or presentations, and turn off any cell phones or beepers before you arrive.

» Make it a team activity. Invite others from your organization to join you at the event to maximize coverage, especially with large audiences. They will appreciate meeting people, too.

» Get involved. Volunteer to sponsor or help organize an event if appropriate. You gain added opportunity to showcase your business and develop connections with people.

Networks are universal and almost everyone belongs to one or more networks. Networks may be personal or professional; formal or informal; temporary or ongoing. They may include family members, school friends, colleagues, members of the same religious institution, etc. Members of a network have at least one thing in common with other members of that network. Sometimes networks become the nucleus of a group concerned with

taking on or supporting a specific cause or action. Creating or strengthening this type of netw ork an advocacy network is the focus of this workshop. Advocacy networks are useful and powerful tools for achieving shared goals. Advocacy networks are effective because they provide a structure that permits organizations and individuals to cooperate, collaborate, and share expertise and resources to influence policy. To be effective advocates, network members must develop skills that enable them to engage in dialogue with decision makers at all levels. Effective networks are well organized; develop a team identity, function according to agreed upon norms and procedures, establish systems and structures for decision making and communication, and use each member's skills and resources to maximum advantage.

Explain to the participants that advocacy groups around the world call themselves by different names some are networks, others coalitions, still others alliances. As long as the members of the group agree on its name and structure, the name is unimportant. However, in the training manual, the term "network" or "advocacy network" is used consistently. In the next activity, the participants define "network" for themselves. Under CDMC/UDMCs working under Tahafuz CBDRM Project, should have strong networking with all stakeholders including community, DDMA, Health and Food Departments , local information agencies, radio/tv, local RSPs offices, police station, hospitals, rescue 1122, CBOs, LSOs, and all other related departments.

Exercise: **Defining Network**
Time: **30 minutes**

»   Write the word "Network" on two sheets of newsprint.
»   Divide the participants into two groups

and ask each group to line up single file in front of one of the sheets.
»   Ask each person to write on the newsprint a word or short phrase that she/he associates with the word "network". Continue until each person has contributed to the list.
»   Ask each group to work with the words listed on its sheet of newsprint and to develop a definition of "network" that everyone in the group agrees with.
»   Share the two groups' definitions and help the participants reach consensus on one definition. They may choose to accept one of the posted definitions or combine parts of each for a new definition.
»   Write the agreed upon definition on clean newsprint and post in the room.
»   Share the following definition with the group.

Exercise: **Mapping Individual Networks**
Time: **1 hour** (Individual Work (30 minutes))

»   Draw a personal network map on the flipchart to guide the participants in their task. Distribute a 1/4 sheet of newsprint and a marker to each participant.
»   Ask each person to draw a circle in the center of her/his sheet and put her/his initials in the circle.
»   Direct the participants to write the names or initials of people or organizations they know. Encourage participants to think broadly, anyone with whom they have contact or know with an interest in DISASTEM MANAGEMENT should be included, such as:
»   People they have met at conferences or workshops,
»   A relative in a government office/clinic whose work is connected with FP/RH,
»   Parents or friends concerned with getting RH information to adolescents,

» Editors and writers of newsletters and other publications, and

» RH organizations/people they have contacted through the Internet.

VDMC /UDMC Network

Practical Considerations for Successful Networks
Time: **1 hour**

1. Divide the participants into four groups.
2. Ask the participants to think about the various advocacy visions they have developed and identify the organizational characteristics and elements that would be necessary for their network to achieve its vision.
3. Assign two groups the task of identifying the practical considerations of forming a network, i.e., what is necessary for a network to form?
4. Assign the other two groups the task of identifying the practical considerations of maintaining a network, i.e., what is necessary for a network to continue its work?
5. Ask each group to list its characteristics/ elements on newsprint.

Note to Facilitator: If the groups need help getting started, ask a few of the following questions.

Forming Networks

1. How do you define a network? What is the purpose of a network? What is the mission of the network?
2. Which organizations or individuals share this mission?
3. How many organizations would you invite to help form the network? How would you invite them?
4. What agenda would you set for the initial meeting?
5. What result do you want from the first meeting? How many agreed to join?
6. What type of commitment are they willing to make? What comes next?

Maintaining Networks

» What is the mission of the network? How large is the membership?
» What are the skills and resources of the group? Where are the gaps? How will you attract members with needed skills/ resources?
» How will decisions be made?
» How will all members stay informed? How will consensus be reached?
» How will you maintain a balance of power?
» How will conflicts be managed/resolved? How will members develop a plan of action? How will activities be coordinated?
» How will tasks be assigned?
» How will network activities be documented? How will you monitor and evaluate activities? How will you reduce or avoid burnout?

Benefits of Networks

» Keep you up to date on what is going on Provide a ready made audience for your ideas Provide support for your actions
» Provide access to varied and multiple resources/skills
» Pool limited resources for the common goal
» Achieve things that single organizations or individuals cannot—power of numbers
» Form the nucleus for action and attract other networks
» Expand the base of support

Strong networking of UDMCs and VDMCs will enable them to cope with the any type of disaster situation at local level, and they will be in position to manage any type of incident at their own, effective networking would ensured reduction in losses.

Chapter 13

Multi Hazards/ Disasters Preparedness, Mitigation and Preventive Measures at Community Level
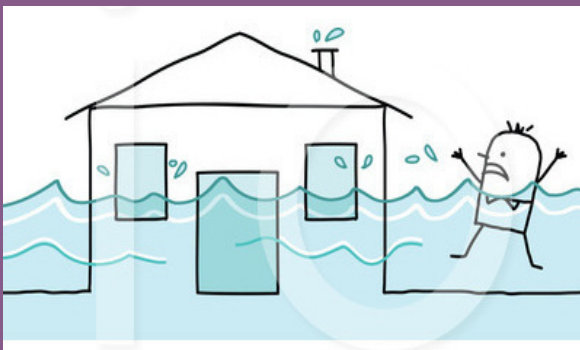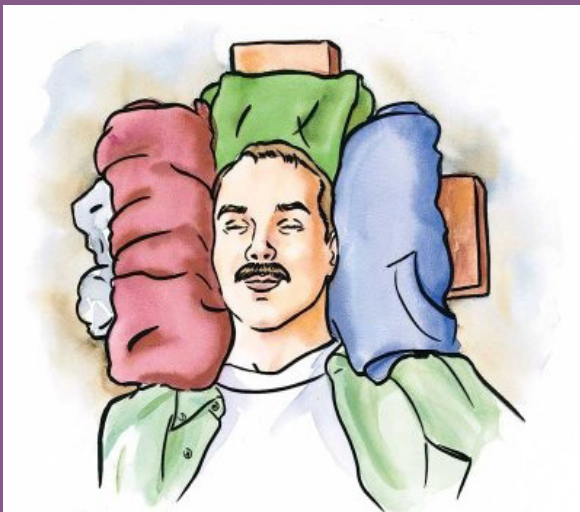
Multi Hazards/ Disasters Preparedness, Mitigation and Preventive Measures at Community Level

Objectives

To introduce the different concepts and approaches of Multi Hazards / Disasters preparedness, mitigation and preventive measures at community level.

Contents

» Multi Hazards/Disasters, preparedness, mitigation and preventive measures at community level
» Basic First Aid and Injury Prevention
» Basic first aid kit
» Search and Rescue
» Firefighting

Methodology

» Power Point Presentations
» Group discussions
» Continuous interaction with participants
» Taking feedback from the participants and Brainstorming

Duration

Duration will be three Hours

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to DRR Measures at Community Level
» Video documentaries

Expected outcome

Participants will have clear understanding on different concepts and approaches of Multi Hazards / Disasters preparedness, mitigation and preventive measures at community level

Extra reading material and sources

» Handouts
» USAID Tahafuz CBDRM Toolkit
» www.adpc.net
» www.ndma.org.pk

Multi Hazards/ Disasters, preparedness, mitigation and preventive measures at community level

Multi hazard means exposure, risk and probability of more than one hazard at same time or interdependent hazard events. The range of hazards considered includes natural hazards (e.g. earthquakes, floods, and windstorms), accidental hazards, and malevolent action. Concurrent hazard events and interdependent hazard events such as fire following an earthquake, flood following a hurricane, or tsunami following an earthquake etc.

Floods:

Flash floods are short term events as a result of one or several downpours or of continuous heavy rainfall over a couple of days. Flash floods are causing damages due to the destructive force and speed of the water. Floods mainly occur in areas which are exposed to monsoon winds carrying humidity from the ocean to land. Over land, the air is forced to move upwards which has a cooling effect on the air what leads to the formation of clouds and subsequently rain (often heavy downpours).These phenomena are likely to increase as a result of climate change when more water will evaporate over the oceans, the
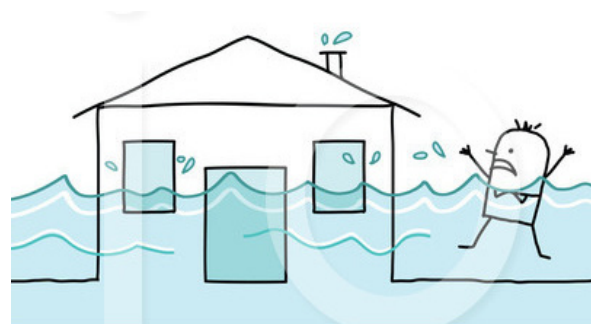
air can absorb more water due to its higher temperature and ultimately more water will come down when the air is forced to raise over land.

Prevention

Floods to a certain extent can be prevented by reducing surface run-off upstream (in mountains and hills where the rivers come from or where they pass through). Although it might not be possible to entirely prevent floods, at least one can mitigate their negative impact. Especially along major rivers with many tributaries, prevention is difficult. However, it is short-sighted to invest money into embankment systems in lower parts of a river without tackling water run-off and erosion in upper parts of the water catchment area.

Mitigation

a. **Protection of forest** cover at the source of the rivers and of their tributaries; this certainly also includes the protection of tropical rain forest.
b. **Reforestation** in watershed areas from the source of a river down to the valley bottom, erosion control and contour planting and terracing
c. **Embankment** but bearing in mind negative effects like water logging due to improper drainage
d. **Clearing of rivers** and brooks in order to allow a smooth flow of water avoiding flash floods: Rock, trunks, branches and twigs and other organic and inorganic debris can block the flow of water and facilitate inundation and damage to areas adjacent to such rivers. This is especially important to combat flash floods.
e. **Overflow surface** to sidetrack the water from the main course. The intention is to channel the water onto areas where no

or considerably less damage is caused by inundation. In case of larger river, this requires proper planning and huge investment and normally goes beyond the capacity of a local NGO. It should also be considered that areas close to rivers which can be used for this overflow method normally are in use by certain people because such areas often do have a potential for farming, as pastures or for vegetable production. These people might be negatively affected by this method and request compensation.

f.   **Avoidance of (arable) farming** on steep slopes

Preparedness:

a.   **Early warning down a river:** What sounds logic and perhaps looks quite simple can become very difficult to put into practice: that people upstream inform people downstream in case a river is likely to cause inundation. Somebody has to feel responsible in the upstream community for alerting someone in the downstream community.

b.   In case of just a few villages included, early warning is rather easy to organize.

c.   But if it is a chain of tens or even hundreds of villages, it can become very fragile and susceptible to failures.

d.   **Flood Shelters:** Similar to cyclone shelters they can provide effective protection in case of floods. However, different from cyclones, floods may last much longer forcing perhaps people to stay in such shelters for quite some time which might cause problems of sanitation, food and water supply and people not getting along with each other when living together under such confined conditions. Rather than constructing special buildings, it is more efficient to fortify public buildings like schools in a way that they can be used as shelters in times of floods.

e.   **Raised settlement sites:** Flood-prone areas normally are flat planes with no or insignificant elevations. Artificially raising the sites on which houses and barns are built can substantially reduce the risk of floods. Often, when scooping out soil for such raised homesteads, the excavated ponds are being used for collecting rain water, paddy fields or fish ponds.

f.   **Fortifying the plinths** of the houses: similar to cyclone-prone areas, inundations can damage the plinths of houses if they are just made of mud often causing the houses to collapse entirely. Fortifying the plinths with bricks, stones and concrete is a means of at least preventing such things to happen.

g.   In most cases a project just needs to provide the construction material and perhaps some expert advice for local people doing the work.

h.   In the absence of shelters or any artificial or natural elevation, people often are forced to resort to trees in their neighborhood to escape the floods. Although this is no long-term solution, trees at least can save people from drowning until they get rescued by somebody. In Mozambique many people mentioned that trees had saved their lives during past floods.

i.   **Mock drill** in communities to rescue people in homes and on trees or other places where they took shelter. This should include courses for ordinary people to learn how to swim.

j.   **Availability of boats and other means of transport** that can be used in times of inundation.

k.   Crop production normally suffers a lot from inundation because the roots need oxygen and plants need to breathe (uptake

of CO2 and breathing out O2). This can be hampered or become impossible in flooded fields. Even paddy does not tolerate being entirely submerged unless it is floating rice which can adjust its height to rising water tables (even several metres). In areas where rice is grown and where inundations are frequent, such **varieties of rice** should be preserved and spread to farmers who need them.

l. **Seed banks:** Similar to cyclone areas, seed stored by farmers at home can get spoiled due to humidity and water entering the storage. Water-safe seed banks can help people avoiding losses of their precious seed. Although seed banks mean rather high investment in the beginning, this would be a much better approach than providing seed from outside the community in order to replace lost seeds due to a flood

m. **Electricity supply:** In times of floods, often electricity supply through a national grid gets interrupted. If that happens, people can no longer recharge their batteries or watch radio and TV. Grid independent electricity supply through e.g. solar panels (established on the roof of public buildings) can avoid such a situation and make early warning and communication with the outside world feasible.

Community based preparedness: Plan

VDMC/UDMC can take following preparedness measures;

» Risk Assessment and village maps (risk maps, resource maps, rescue maps) as planning tools leading towards participatory instruments of preparedness and mitigation
» Training of communities in various aspects like house construction, improvements of

local capacities and coping strategies etc.
» Assignment of responsibilities inside a community in times of a disaster (e.g. taking care of elderly or sick people, passing on early warnings)
» Mock drills to train people what to do and how to behave in times of a disaster, how to rescue injured people, first aid.
» Lobbying of local governments and exchange with other communities

Cyclones (Typhoons, Hurricanes)

Cyclones are likely to increase in the future in terms of velocity as a result of climate change. In other words: Scientists predict that the frequency of severe and very severe will increase because of higher temperatures of tropical and subtropical oceanic region.

Prevention:

There is no way to prevent this type of disasters. But there is scope for mitigating or minimizing their negative effects and for preparedness.

Mitigation (examples):

a. **Mangroves** are efficient means of breaking the force of storms and waves coming from the sea. They grow in brackish water (mixture of sweet and salt water along

the sea shores in tropical conditions). There are scientific reports that even the destructive force of the Tsunami wave in 2004 was mitigated where Mangroves still were intact. This certainly stimulated many people and projects in this region to grow Mangroves as a means of rehabilitation and prevention. However, one should keep in mind that one cannot just plant Mangroves where ever cyclones are common. Mangroves need very peculiar temperature and hydrological conditions. In regions, where still some natural Mangroves are left, it is the best approach to just restore the hydrological conditions that have been there before (e.g. depth of sea water level in times of low and high tide, balance between sweet and salt water) and wait until natural re-growth of Mangroves takes place. Where due to sweeping destruction of Mangroves (e.g. due to intensive aquaculture) there is no natural re-growth possible, one can bring in seedlings or seed from other areas but not prior to having restored the hydrological conditions such plants need to grow. It should also be highlighted that the success of Mangrove plantation or rehabilitation depends on the hinterland (the entire catchment area of a river up to the source). If along the river too much erosion takes place and the river carries too much sediment into the sea, the Mangroves might easily suffocate in the sediment. Therefore, in such cases it would be necessary to combine Mangrove rehabilitation with erosion control measures along rivers and their tributaries on their way to the coast.

b. **Beach forest:** Where Mangroves don't grow because the hydrological conditions are not conducive, one can plant so-called beach forests which also grow on sandy beaches and also mitigate storms and waves. Such forest, for examples, can be made of casuarinas e., scaveola, pandanus or betelnut tree species. But also coconut trees often serve such purposes.

c. **Embankments and dikes:** Another means of mitigation are dikes along the sea shore. Sometimes it is also necessary to construct dikes along the rivers flowing into the sea in order to prevent sea water from intruding far into arable land and from contaminating the ground water. Dikes are certainly efficient means for this, but not without bottlenecks. Firstly, they are costly and therefore often beyond the financial means of NGOs. Secondly, in regions with plenty of rainfall, the water has to be drained into the sea. Otherwise there will be water logging in areas without proper drainage. In order to allow water to flow into the sea, one needs sluice gates and/ or water pumps to drain the water during low tide. Experiences tell us that sluice gates have a tendency to get dysfunctional in the course of time and the same can happen to engine-driven pumps. In fact, that obviously happened in many parts of Bangladesh, where large scale embankment projects tried to prevent the major rivers from flooding the land but drainage became dysfunctional with the effect that large areas have become water logged and are almost entirely lost for human use. Another lesson learnt from Bangladesh is the problem with river sediments. Without embankments, such sediments regularly were deposited on farming areas, contributing significantly to the natural soil fertility. If this is prevented due to such embankments, the sediment gets deposited in the river bed itself, constantly rising the floor of the river. The higher the river floor, the more difficult it gets to drain the land behind the embankment what makes water logging

even more likely to happen.

d. **Wind breaks forests and plantations (mainly in coastal areas):** They are specifically located in the vicinity of settlement areas and can consist of deep rooting trees that do not pose a hazard themselves to the houses. For ecologically stable forests, it is advisable to avoid monocultures like the many casuarina monocultures in tropical coastal areas (mainly on sandy soils) which are very poor in terms of biological diversity and sustainability.

e. **Artificial Reefs:** Consisting of large concrete blocks put into the sea and close to the coastline, they can break the velocity of waves. If built properly, they can function to a certain extent like natural reefs and provide breeding space for fish and other maritime fauna. There are critical comments from "Ocean Conservancy" saying that e.g. artificial reefs can displace local fish species and concentrate fish in small areas making it susceptible for overfishing

Preparedness:

a. A combination of **early warning systems** and shelters where people are protected from storms and surges has achieved very good results. In Bangladesh, the presence of cyclone shelters in coastal areas of Bangladesh has saved many lives when cyclone SIDR in 2008 hit the country.

b. **Early warnings** can reach people via radio, TV and mobile phones. In villages which are not connected to the national electricity grid, recharging of batteries becomes an essential tool of a preparedness approach. This can easily be done by solar panels which are expensive as initial investment but usually pay off fast.

c. **Cyclone shelters** in low-lying coastal areas often are the only safe place for people to resort to. However, construction of such a shelter is costly, depending on the number of people it needs to accommodate. In addition, acceptance of such buildings in times of emergencies depends on different factors and cannot be taken for granted. Among others are the following points to consider:

› Due to religious and cultural reasons, women may not be permitted to enter such shelters without their husbands

› If such shelters are of no other use to the people (like as cinema, workplace, cultural centre, seed drying place etc.), people might not accept such facilities and ignore the option to take shelter there. They might also fail to maintain them properly

› People might be afraid of leaving their homes because of thieves. Sometimes, at least one family member has to stay at home in order to prevent theft.

› Bearing in mind such points it is essential to not only build such shelters but to train and get people used to such facilities.

d. **Seed stores:** In many remote or traditional rural areas, people still use their own seeds for the next planting season. This seed usually is stored at home in all sorts of containers and pots. If a cyclone hits such houses, often the roof gets damaged or even washed away, the homes get flooded and the seed becomes soaked in water. Such seed is of no use anymore. Community seed bank where people can store the seed before a disaster strikes or even in normal times (perhaps because of less pest problems due to proper storage conditions) can help farmers to save their seed and use it once the disaster has gone.

e. **Protection of drinking water supply:** This is

important against surges flooding the land with salt water and making drinking water sources unusable. One can raise the upper walls of an open well at least to an extent that normal floods don't spill over. More difficult is the protection of open surface ponds. It can be done by raising the banks of such ponds scooping out soil from the interior part of the ponds and depositing it around the pond. In Bangladesh, this is a traditional pattern called "killas". The excavated soil is also being used to build raised corals where livestock can be kept safely when the flood approaches.

f. **Roof water harvesting:** This can be an alternative/a supplementary approach to open ponds. When using concrete or plastic tanks, such reservoir usually can be sealed against water infiltration from outside allowing the water to be used even in times of floods.

g. **Fortifying plinths:** poor peoples´ homes often are made of mud. Especially the plinths of such mud houses easily get eroded and destabilized, even when the slightest floods occur. Fortifying such plinths by bricks and concrete can avoid considerable damage and relief people from frequently repairing their homes.

Community based preparedness plan

VDMC/UDMC can take following preparedness measures;

» Risk Assessment and village maps (risk maps, resource maps, rescue maps) as planning tools leading towards participatory instruments of preparedness and mitigation

» Training of communities in various aspects like house construction, improvements of local capacities and coping strategies etc.

» Assignment of responsibilities inside a community in times of a disaster (e.g. taking care of elderly or sick people, passing on early warnings)

» Mock drills to train people what to do and how to behave in times of a disaster, how to rescue injured people, first aid.

» Lobbying of local governments and exchange with other communities

Basic First Aid and Injury Prevention

It is expected that through this session participants will be able to learn how to assess, plan, implement and evaluate first aid for various injuries and illnesses. Furthermore participants will practice communicating injury prevention messages with members of community. Basic first aid and injury prevention is a specialized task and must be carried out by "First Aid and Medical" Taskforce. The taskforce will carry out the activities in pre, during and post disaster period and will comprises of members from the VDMC.

Role and Responsibilities of First Aid & Medical Team:

» Prepare an updated list of the vulnerable people in the village at regular intervals.

» Keep the first aid kit ready with medicines for fever, diarrhea, cuts, burns, fractures,

sprains, lesions, etc. Medicines like ORS, bleaching powder, halogen tablets, etc.

» Check and replace medicines which have crossed the expiry dates on regular intervals.
» Update list of people requiring medical assistance.
» Provide first aid and medical care as and when required.
» Support VDMC in damage and needs assessment
» Support VDMC is developing the first aid contingency fund.

Role and Responsibilities of VDMCs:

» Selection of volunteers to form first aid and medical Taskforces
» Coordinate with Project team and UDMCs for training of the Taskforce volunteers on Health and First Aid.
» Advocate and seek support for sustainability of Taskforce for immediate response to road accidents, fire break, drowning, boat tragedies / capsizes, accidental falls, snake bites, emergency / fatal health / disease related cases, etc.
» Strive for Skill upgradation of the Task force.
» Ensure regular meetings of the taskforce members to plan, review and follow up taskforce activities.
» Ensure development of first aid contingency fund

Role and Responsibilities of VDMCs:

» Support VDMCs in identification and selection of volunteers to form first aid and medical Taskforces
» Coordinate with Project team and local authorities for training of the Taskforce volunteers on Health and First Aid.
» Advocate and seek support for

sustainability of Taskforce
» Strive for Skill up gradation of the Task force.
» Ensure development of first aid contingency fund at village and UC level.

Technical and Professional aspects of first aid in disaster situation for VDMC and UDMC

Although first aid is purely technical and professional subject but CBDRM Tahafuz project will impart basic knowledge and skills to the VDMC and UDMC representatives and equipped them with material and tools for their understanding about the different types of first aid techniques, methods and tools which enable VDMC and UDMC to coop with disaster situation at least at the basic level, following are the key areas in this regard;

1. Principles of first aid,
2. Psychological first aid
3. Basic life support,
4. Basic first aid for choking, Basic first aid for bleeding and wounds,
5. Basic first aid for shock, Basic first aid for burns and scalds,
6. Basic first aid for head, neck or back injuries,
7. Basic first aid for injury to bones, muscles or joints,
8. Basic first aid for poisoning,
9. Basic first aid for chest pain,
10. Basic first aid for stroke, Basic first aid for electrical injury,
11. Basic first aid for drowning,
12. Basic first aid for eye injuries and eye problems,
13. Basic first aid for animal and insect bites or stings,
14. Basic first aid for fever,
15. Basic first aid for convulsions
16. Infection control in first aid
17. Basic first aid kit.

1. Principles of First Aid

First Aid:

First aid is the first/immediate assistance/ treatment given to an ill or injured person until professional medical help arrives.

Principles of First Aid:

» Stay calm. Do not take risks for yourself, the injured person or any witnesses.
» Manage the situation to give safe access to the person.
» Manage the person.
» Do things step by step.

Steps for First Aid Action- assess, plan, implement, and evaluate

Assess
Assess the situation and check for dangers:
» Check for safety before rushing to the person
» Make sure the situation is safe for you, the casualty, and other people or bystanders

Assess the person's condition:
» Is the victim suffocating or bleeding? In these cases, act immediately and appropriately
» Is the person conscious?
» Is the person breathing?

Assess for injuries
Assess for signs of shock or psychological trauma

Plan
Get help: Call for help or ask someone to call for medical or professional help

Plan first aid interventions:
» Plan what action to take until professional

help arrives, based on the initial or primary assessment
» Determine how much help you can give based on what you know and what skills you have
» Ensure your own safety as a volunteer

Implement first aid:
» Give first aid for life-threatening emergencies and specific injuries based on the initial assessment
» If emergency services are arriving very soon, do not splint injuries maintain safety and wait for assistance
» Give psychological first aid:
» Talk to person and family
» Inform them what is happening and what you are doing

If it is necessary, prepare the person for transportation

Evaluate
Evaluate first aid actions:
» Check that medical or professional assistance will arrive soon
» Check that the scene remains safe. If not, consider moving the person as carefully as possible with help
» Check that bandages are still in place and

bleeding has stopped. If not, do not remove existing dressings, but simply add more dressings and apply pressure

» If the person becomes unconscious, follow actions for basic life support
» Hand over the person to medical or professional personnel
» Find out which hospital, clinic or health centre will provide care
» Inform family and relatives

2. Psychological first aid

Psychological first aid is about being "on the spot" in order to extend basic, human support, deliver practical information, and show empathy, concern, respect and confidence in the abilities of the affected person.

Affected persons who may need psychological first aid include survivors, relatives, witnesses and relief workers. Situations that may create a need for psychological first aid include all types of critical events, such as disasters, illness, accidents and conflicts.

Psychological first aid should be considered for all first aid procedures. It can be the starting point for many other forms of support.

Four elements of psychological first aid

1. Stay close:
A person in crisis temporarily loses their basic sense of security and trust in the world. Volunteers can help rebuild trust and security by staying close and not becoming alarmed by the other person's anxiety or extreme show of emotions.

2. Listen attentively:
It is important to take time to listen carefully in order to help someone going through a difficult time, listening without hurrying him or her and showing active listening by asking questions to clarify what the affected person is talking about. At the scene of an accident there may not be much time, but it is still important to listen and be there for the person until the ambulance personnel take over. For many people, interference can seem intrusive. It is, therefore, important to maintain a balance and listen carefully without intruding.

3. Accept feelings:
Keep an open mind about what is being said and accept the affected per- son's interpretation of the events. Acknowledge and respect feelings. Do not correct factual information or the affected person's perception of the sequence of events. Be prepared to en- counter violent outbursts of feelings. The person might even shout or reject help.

It is important to be able to see beyond the immediate facade and maintain contact in case the person needs to talk about what has happened. At the scene of an accident this could mean moving away slightly, while keeping an eye out for any signs that the person might need help.

4. Give general care and practical help:
When someone is in a crisis situation, it is a great help if another person lends a hand with the practical things. Contact someone who can be with the affected person, arrange for children to be looked after, or drive the person home or to the medical facility. This practical help is a way to show care and compassion. Follow the wishes of the affected person. Avoid taking over more responsibility for the situation than the person actually needs.

Immediate psychological first aid

In a situation where an individual needs support immediately after a critical event has occurred, the following steps could be pursued:

» Establish contact with the person by introducing yourself and offering assistance.
» If at all possible, remove the person from the stressful situation.
» Limit their exposure to sights, sounds and smells.
» Protect them from bystanders and the media.
» Give the person adequate food and fluids.
» Make sure that someone stays with the person at all times.
» Ask the person what happened, how they are doing and allow them to talk about their experiences, concerns and feelings.
» Do not force anyone to talk.
» Reassure the person that any reactions are normal.
» Help the person in decision-making if necessary.
» Ask the affected person if they have a place to go. If not, help to find shelter.
» Ask the affected person if they have someone to stay with them or someone to talk to after getting home. If not, help in establishing contact with family members or others.
» Give factual information about where and how to locate specific resources.

Volunteer self-care

Looking after yourself means that you remain fit to help others and to keep on doing so. Self-care techniques include:

1. Remembering that you may have a quite normal and unavoidable reaction
2. Taking good care of yourself, by eating well, limiting the intake of tobacco, and exercising to relieve tension
3. Remembering that it takes time to process what has happened
4. Not trying to self-medicate. Seek professional advice if reactions are still difficult to deal with after a few weeks

3. Basic life support

What is basic life support?

Basic life support is a life-saving technique to maintain the Airway, Breathing and Circulation (ABCs) of an injured or sick person before professional medical help arrives.

» **Airway:** keeping the nose, mouth and throat open and free from obstruction so air can get to the lungs.
» **Breathing:** keeping air flowing in and out of the lungs.
» **Circulation:** keeping the movement of blood through the heart and the body.

Recovery position

If the person is unresponsive, has an open airway, and is breathing, place him/her in the recovery position:

» Lift one arm up and out, place the other arm over the chest.
» Push the foot up towards the chest so that the knee is at a right angle (on the same side as the arm over the chest).
» Roll the person over on his/her side towards you by placing your hands on the person's hip and shoulder.
» Put the person's hand on the upper arm under his chin. Tilt the head backwards and keep the airway open.
» Check for breathing by looking at the chest for rise and fall, feel with your hand in front of the mouth and nose and listen for breathing sounds.

Steps to check airway, breathing and circulation

Assessment: determine unresponsiveness by:
» Tap or gently shake shoulders
» Ask, "Are you alright?"

Practice checklist for basic life support (BLS) for an unconscious person who is breathing

	Yes	No
Assessment		
Assess the scene		
Assess the person: Determine unresponsiveness Get help If unconscious, put person in recovery position		
Airway		
Open the airway with head tilt/chin lift		
Breathing		
Determine if breathing (allow ten seconds): Look to see if chest is moving up and down. Listen for sound of breathing Feel for the breath against the cheek		
If the person is breathing normally, put the person into the recovery position		
Circulation		
Continue to check for breathing by looking at the chest for rise and fall, feel with your hand in front of the mouth and nose and listen for breathing sounds. Monitor until professional help arrives.		

» If person is conscious, leave in position you found him, unless in danger. Determine what happened and whether help is needed. Monitor until help arrives

Get help:
» Shout "Help!"
» if unconscious, position on back
» turn slowly on to back, while supporting the head and neck

Airway
Open the airway with head tilt/chin lift:

» Carefully tilt the head back
» Lift the chin to open the airway
» If the person is unresponsive, has an open airway, and is breathing, turn the person onto his or her side (recovery position) with the person's hand in front. This will prevent choking if the person vomits

Breathing
Assessment Determine if breathing (allow ten seconds):
» Look to see if chest is moving up and down.
» Listen for sounds of breathing at the person's mouth.
» Feel for breath on cheek

If obstructed, clear the airway:
» Reposition head tilt/chin lift
» Check inside the mouth for an obstruction and clear the airway

Circulation
» Continue to check for breathing by looking at the chest for rise and fall, feel with your hand in front of the mouth and nose and listen for breathing sounds. Monitor until professional help arrives.

Figure A

Figure D

Figure B

Figure C

Figure E

Figure F

4. Basic first aid for choking

Choking happens more often to small children because they put things in their mouths when they are learning to chew. Elderly people are also at risk of choking because they may be unable to chew their food properly.

Signs of choking

The universal sign for choking is hands clutching the throat. In addition signs are:
» Not able to talk, not able to make a sound, or not able to cry
» Difficulty breathing or noisy breathing
» Not being able to cough
» Lips and tongue turn blue
» Loss of consciousness if the blockage is not removed

Basic first aid steps for choking adults and children over one year of age

Assess: Assess the scene and observe what is happening and Assess the person's condition.

Ask, "Are you choking? Can you talk?"

Plan: Send for medical help if the person CANNOT talk

Implement: If the person can speak, cough or breathe:

» Encourage the person to keep coughing to clear the blockage. If the blockage clears, no further action is needed

» Stay with the person until they breathe normally

If the person CANNOT speak, cough or breathe, use the five and five approach:

» Give five blows to the back between the person's shoulder blades with the heel of your hand:
  › check if blockage has cleared after each blow
  › stop if blockage has cleared

» Give five abdominal thrusts:
  › Stand behind the person
  › wrap your arms around the waist
  › tip the person forward slightly
  › make a fist with one hand
  › position it slightly above the person's navel
  › grasp your fist with the other hand
  › press hard into the abdomen with a quick, upward thrust, as if trying to lift the person up

» Repeat alternating between five back blows and five abdominal thrusts until the blockage is dislodged.

» Refer person to a hospital, clinic or health centre for professional evaluation.

» If the person becomes unconscious, follow steps for basic life support.

	Yes	No
Assess		
Assess the scene		
Assess the person. Ask "Can you talk? Are you choking?"		
Plan		
Send for professional help		
Implement		
Give five back blows: • Bend the person forward • Give the blows between shoulder blades		
Give five abdominal thrusts: • Stand behind person • Wrap arms around the waist • Tip the person forward slightly • Make a fist with one hand • Position fist above person's navel • Grasp the fist with other hand • Press hard into the abdomen with a quick, upward thrust		
Refer to hospital, clinic or health centre		
Give basic life support if unconscious		
Evaluate		
Check back blow and abdominal thrust technique		
Remain with the person until medical or professional help arrives		

Evaluate

» Check back blow and abdominal thrust technique.

» Stay with the person until medical help arrives.

Basic first aid steps for choking in infants and children under one year of age

Assessment, planning and evaluation stages stay the same. There are some differences in implementation, however. Make sure that you know how to deal with choking in pregnant women and in infants under one year of age.

5. Basic first aid for bleeding and wounds

Severe bleeding is a potentially life-threatening problem, which needs immediate medical attention. Excessive blood loss can lead to shock and death.

Signs of bleeding

Bleeding can be external or internal. External

bleeding is bleeding from a wound through the skin. It is usually caused by accidents and injuries. External bleeding can also be caused by complications of pregnancy such as a miscarriage or during labour and delivery. Internal bleeding is bleeding inside the body that is not visible. Internal bleeding is usually caused by a hard blow to the body. Sometimes a broken bone can puncture an internal organ or injuries cause bleeding inside the body. Internal bleeding can be difficult to assess. Internal bleeding can be life-threatening and needs immediate medical attention. Some signs of internal bleeding include:

Practice checklist for severe external bleeding

	Yes	No
Assess		
Assess the scene		
Introduce self to person and explain what you will do		
Assess the person		
Assess for sings of shock		
Plan		
Send for professional help		
Identify a barrier to protect self such as gloves or plastic bag		
Implement		
Help person lie down		
Use dressing to apply pressure to wound		
Instruct person to apply pressure with bandage		
Give Psychological first aid		
Refer to hospital, clinic or health centre		
Give basic life support if unconscious		
Evaluate		
Check to see if bleeding has stopped		
Continue to apply pressure and apply more dressing if needed until medical or professional help arrives		
Remain with the person until medical or professional help arrives		

- » shock
- » swelling and hardness of the abdomen or belly
- » pain in the abdomen or belly
- » vomiting blood
- » pale or bluish skin
- » headache
- » bruising
- » feeling cold
- » feeling thirsty
- » bleeding from openings such as the mouth, nose or ears

Complications of bleeding and wounds

- » The immediate danger of bleeding is shock.
- » Other risks are injuries to nerves and organs inside the body.
- » Open wounds with haemorrhage can become infected.
- » Pain.

Basic first aid steps for external bleeding

Assess
- » Check the scene for safety.
- » Introduce yourself as a volunteer and tell the person what you will do.
- » Assess the person to identify wounds and the source of the bleeding.
- » Assess for signs of shock.

Plan
- » Send for medical help.
- » If alone, stop bleeding, and if possible teach the injured person to stop the bleeding while you go for help.
- » If possible, avoid direct contact with the person's blood. Wear gloves if they are available. If there are no gloves, look for a plastic bag to use as a barrier.

Implement
- » Ask the person to apply pressure to the wound themselves.
- » Help the person to lie down.
- » Cover the wound with any clean cloth.
- » Press down and apply pressure on the wound. Apply the bandage firmly enough to stop bleeding but not so tight as to cut off circulation.
- » Instruct the bleeding person to apply pressure to the wound.
- » Do NOT use a tourniquet.
- » If the person is in shock, cover the person to keep warm, but do not overheat.
- » Give psychological first aid by explaining what is happening and giving reassurance.

CONTROLLING EXTERNAL BLEEDING

A

B   raise the limb

C   roll of bandage tied firmly in place

D
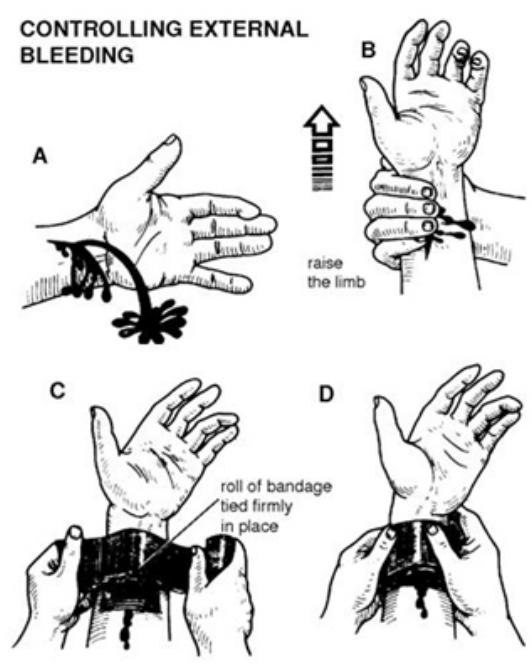
» If the person becomes unconscious, follow the steps for basic life support.

Evaluate

» Check if bleeding has stopped.
» If the bleeding continues, press on the wound more firmly and apply more dressings (bandages). Do NOT remove the first dressings.
» Continue to apply pressure until medical help arrives.
» Ensure help is on the way or transport person to nearest medical facility.
» Wash hands with soap and water after giving first aid.

Basic first aid steps for wounds or cuts

The steps to assess, plan and evaluate remain the same.

Implement

» If possible, wash your hands with soap and water.
» Wash any dirt and debris from the wound with clean water. Continue until the debris is removed. Do NOT rub the wound to get the debris out.
» If there is an object sticking out of the wound, do NOT remove it. Leave it there. Try to stop the bleeding and stop the object from moving with pads and bandage.
» Dry the area around the wound but do not touch the wound directly.
» Cover the wound with a sterile pad or a clean cloth.
» Advise the person to seek medical help especially if the wounds look red, hot and painful to touch after some days.
» Make sure you are protected against tetanus.

Basic first aid steps for spontaneous nosebleeds

Implement

» Ask the person to sit down with their head forward.
» Apply pressure by pinching the soft part of

Practice checklist for shock

	Yes	No
Assess		
Assess the scene		
Introduce self to person and explain what you will do		
Assess the person § Check for bleeding § Feel skin § Check breathing		
Plan		
Send for medical help		
Plan for transportation and medical help		
Implement		
Give Psychological first aid		
Stop any external bleeding		
Cover person		
Refer to hospital, clinic or health centre		
Give basic life support if unconscious		
Evaluate		
Check skin to see if colour has retuned to normal and is dry and warm		
Check to see if help or transportation is on the way		
Remain with the person until medical or professional help arrives		

the nose with the fingers.

» Make sure they can breathe through the mouth.

» Tell them to avoid swallowing the blood because it will make them sick.

» Continue to hold for ten minutes.

Evaluate

» If bleeding does not stop, seek medical attention.

» After bleeding has stopped instruct the person not to touch or blow the nose for a few hours.

6. Basic first aid for shock

Shock is caused when a large amount of fluid is lost from the body. For example, excessive bleeding, severe diarrhoea, severe vomiting or burns over large areas of the body can cause shock. Shock can be brought on by:

» electrical injury

» severe pain

» allergic reactions, severe infection, poisoning

» heat stroke

» fear

Signs of shock

» Skin feels cold, moist, and clammy.

» A light-skinned person will look pale. A

dark-skinned person will have blueness or greyness inside the lips.

» Fast breathing with small shallow breaths.

» Weak and fast pulse.

» Feeling anxious or restless, feeling faint.

» Thirst or feeling sick and vomiting.

» May become unconscious and die if untreated.

Basic first aid steps for shock

Assess

» Assess scene and personal safety, such as electrical hazards.

» Introduce yourself and explain what you are going to do.

» Assess the person's condition. Look for wounds and bleeding.

Plan

» Send for medical help.

» Arrange for emergency transportation to the hospital, clinic or health centre.

Implement

» Reassure the person by providing psychological first aid.

» Help the person to lie down.

» Stop any external bleeding.

» Cover and keep the person warm, but do

NOT overheat.
- » Loosen any tight clothing.
- » Do NOT give any food or liquids.
- » If the person becomes unconscious, follow the actions for basic life support.
- » Arrange for urgent transportation to a medical facility.

Some people may feel faint and show signs of shock for a short period of time. Make sure they are helped to lie down. Check their breathing. Normally without any further action, the person will recover.

Evaluate
- » Check to see if the person's condition has improved.
- » Check if the skin colour has returned to normal and if the skin feels warmer and dry.
- » Check to see whether help is on its way or take the person to a hospital, clinic or health centre as soon as possible.

7. Basic first aid for burns and scalds

Burns are injuries caused by heat, electricity and chemicals. Scalds are caused by hot liquids. Small burns and scalds can be treated by volunteers. Large burns and scalds may be life threatening due to loss of body fluids and shock. Large burns and scalds need immediate medical help. Swallowing very hot or corrosive fluids can cause burns to the mouth, throat and

stomach. Children may be most at risk of burns and scalds from touching heat sources near cooking stoves or fires. People who work in the kitchen or in factories with corrosive chemicals are at risk of burns.

Signs of burns and scalds

- » Minor: the skin turns red, feels hot, and is swollen but not broken.
- » Serious: the skin may blister and there is severe pain and swelling.
- » Very severe: sometimes the burned area may be charred black or appear dry and white. These burns are very dangerous because of risk of infection, shock and death.

Basic first aid steps for small and minor burns and scalds

Assess
- » Check the scene for safety.
- » Assess the person for severity of burns.

Plan
- » Send for medical help.
- » Remove person from danger or contact with burning materials if it is safe for volunteer to do so.

Implement
» Cool the burned area quickly with cool clean water for 15 to 20 minutes until the pain is reduced.
» Remove any clothing or jewellery if they are not stuck to the skin.
» Do NOT open blisters that are unbroken.
» Do NOT apply any cream or ointments.

Evaluate
» Continue cooling the burn until pain has been reduced.
» Refer the person for professional medical help for any of the following:
  › the person is under five years old or over 60 years old
  › burns are on the face, ears, hands, feet, limbs, genitals or joints
  › burns are in the mouth or near the airway such as neck or chest
  › burn was caused by electricity, chemicals, radiation or high pressure steam
  › burn covers more than 5 per cent of the total body area in children under 16 years old or 10 per cent in adults. Size of a person's hand can be measured as around 1 per cent of the body area.

Basic first aid steps for large and severe burns and scalds

Assess
» Is the situation safe for the volunteer?
» Assess person's condition.

Implement
» Send for help immediately.
» If the person is unconscious, follow basic life support.
» Do NOT remove any burnt clothing.
» Do NOT immerse large severe burns in cold water. This could cause shock.

Cover the burn with a sterile bandage

» Cover the area of the burn. Use a moist cloth or moist towels.

Evaluate
» Ensure help is on the way or transport person to nearest medical facility.
» Check the person does not become too cold. Cover with a blanket but do NOT overheat.

Prevention
Volunteers can encourage community household members to look for ways to prevent burns and scalds in the community. Volunteers can begin by using the Community Map of dangerous places they developed in Module 3 to assess which hazards and risks may exist for heat, electrical or chemical burns. Volunteers can communicate the following key prevention messages to community members:

Key messages
» Burns can be caused by fire, hot liquids, hot stove, chemical or electric wires.
» Prevent burns when cooking:
  › stay nearby when food is cooking
  › keep children away from the cooking area
  › turn pot handles inward
  › do not leave spoons or other utensils in pots while cooking
» Keep matches and electrical appliances out of children's reach.

» Keep dangerous chemicals out of children's reach.
» Teach your children about household objects that can burn them.

8. Basic first aid for head, neck or back injuries

Injuries to the head, neck or back are potentially serious because they can lead to permanent loss of movement, coma, unconsciousness and death. Damage to spine can make breathing difficult. In some cases spine injuries can cause breathing to stop. It is important NOT to move a person with head, neck or back injuries to prevent additional injury to the spine. However, if the person is NOT breathing and it is necessary to move the person to give basic life support, maintaining a clear airway will take priority over a potential spine injury.

Signs of head, neck or back injuries

» person has been in a traffic accident or fall sleepiness, agitation or unconsciousness
» loss of memory
» severe headache, nausea and vomiting
» strange behaviour or irritability convulsions
» visible head injuries
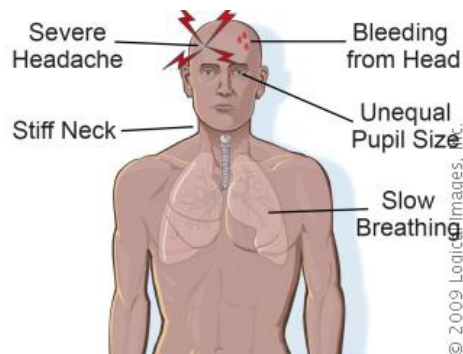
» loss of feeling or tingling
» pain or tenderness in neck or back

Basic first aid steps for head, neck or back injuries

Assess
» Ensure that the accident scene is safe to approach.
» Assess the person's condition and level of consciousness.

Plan
» Send for medical help or the emergency services. If alone, go for help.
» Plan first aid actions.
» If no emergency transport is available, arrange to transport person to hospital, clinic or health centre. If possible, get medical help to assist in immobilizing the person for transport.

Implement
» Give psychological first aid. Give reassurance by talking to the person and explaining what is happening. The person may panic if they are unable to move or feel their limbs.
» Immobilize the person if s/he agrees:
   › kneel beside the injured person's head
   › slide both hands carefully under the neck without moving the head
   › support the neck and stabilize the head until emergency services arrive

» If the person becomes restless and agitated, do NOT hold the head and neck if person resists.
» Maintain an airway and make sure the person is breathing. This is more important than the suspected spine injury.
» If the person is unconscious, follow actions for basic life support.

Evaluate
» Check if emergency services or medical help are on their way.
» Monitor the person's condition.

9. Basic first aid for injury to bones, muscles or joints

Injuries to bones, muscles or joints are usually caused by trauma. The aim of first aid for injured bones, muscles and joints is to:
» reduce pain
» prevent further injury
» prevent major bleeding and shock
» manage unconsciousness

Broken bones can be closed (no wound at the site of the break), or open (has a wound at the site or the bone is sticking out of the skin).

Signs of bone, muscle or joint injuries

Look
» If there is an obvious injury to a bone, muscle or joint, the injured person will NOT be able to move the injured part.
» In some cases, there may be swelling at the site of the injury.
» Sometimes the limb or joint will be in an abnormal position compared to the one on the other side of the body.
» There may be bleeding from the injury.

Listen
» The person will complain of pain.

» Let the person explain what happened.

Feel
» In some cases, injury may not be obvious to see. Gentle touching of the area may identify the problem.

Swelling

Fracture
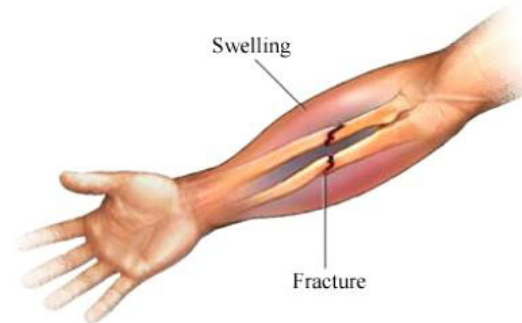
Basic first aid steps for bone, muscle or joint injuries

Assess
» Check scene safety for the volunteer and the injured person.
» Check the person's condition. Look, listen and feel.

Plan
» Send for medical help or emergency services.
» Consider first aid actions according to the situation and surroundings.
» If the person is in danger, move or drag the person to safety quickly and carefully.
» If emergency services are coming, do NOT try to move or splint the injury.

Implement
» Attend to immediate life-threatening problems such as obvious external bleeding or breathing problems.
» Give psychological first aid by offering

Do Not
Apply a
Tourniquet

Apply Pressure
if Bleeding

Splint Broken
Bones

reassurance, talking and explaining what is happening.

» Do NOT try to re-set limbs that are in abnormal shape.
» Cool the injury with ice wrapped in a towel if ice is available.
» Cool the injured part for 20 minutes at a time.
» If emergency services are coming, do NOT splint injuries.
» Avoid bearing weight on an injured lower limb.

Evaluate
» Continue to evaluate the first aid actions and the condition of the injured person.
» Give first aid actions according to changes in condition.
» If the person becomes unconscious, follow the actions for basic life support.

Basic first aid if no emergency service is available

If the accident happens in a remote area and no emergency service is available, get other people to help. Prepare the injured person for transport to a hospital, clinic or health centre:

For upper limb injury
Ask the injured person to support the injured upper arm against his/her body with the other arm.

For lower limb and pelvis
» Use a belt, folded cloth, or bandage to tie the injured leg to the uninjured limb without moving the broken bones.
» Find some suitable pieces of wood, rolled-up hard paper, and bandages or other materials to use as a splint.
» Splint the limb and tie the limb in the position it is in.
» Do NOT move the broken bones. 0

10. Basic first aid for poisoning

Poisons exist in many forms and can enter the body by swallowing, inhaling, through wounds, bites, or through the skin. Poisoning can happen quickly or slowly. Some poisons can cause death. If you think a person has been poisoned, get medical help immediately.

There are many types of poisons in the home, workplace and surroundings such as:

» chemicals used for cleaning
» all types of medicines, especially if not taken according to directions
» some wild plants, mushrooms, roots and berries
» pesticides used for gardening and farming
» gasoline, kerosene, lighter fluid, lamp oil
» cosmetics

Children are particularly at risk of poisoning because they experiment by putting many things in their mouths. It is important to prevent poisoning by keeping poisons out of children's reach.

Signs of poisoning

» Drinking certain poisons can cause burns or redness around the mouth and lips.
» A person may have a breath that smells like chemicals such as gasoline.
» You may find empty medication bottles or pills on the ground if a child has been poisoned.
» The person may suddenly begin vomiting, have difficulty breathing, or become confused or sleepy.

Basic first aid steps for poisoning

Assess
» Check the scene for safety.
» Assess the person's condition.
» Look around for possible poisons or ask the person about the possible cause and source of poison.

Plan
» Arrange for emergency service or arrange for transport to the hospital, clinic or health centre.

Implement
» Give psychological first aid and reassurance to reduce fear.
» Contact the Poison Control Centre or healthcare professional. Describe what happened and give information on the poison. Follow their instructions.
» If professional medical help is NOT available, transport immediately to hospital, clinic or health centre.
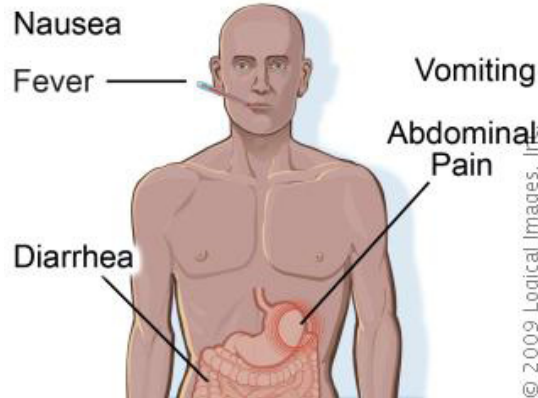
» Do NOT induce vomiting.
» Do NOT give liquids to drink.
» If unconscious, give basic life support.

Evaluate
» Observe and continue to reassure the person.

Key messages
» Store all medicines, cleaners and household chemicals out of the reach of children.
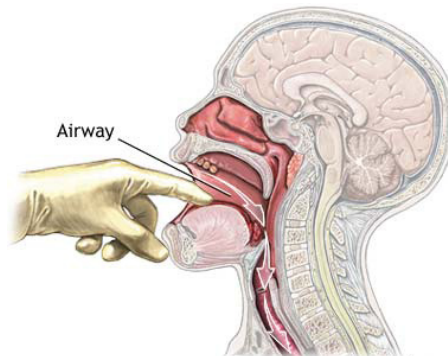
» Do NOT eat unknown wild plants, mushrooms, roots or berries.
» Teach children about the dangers of substances that contain poison.
» Label poisons.
» Do NOT store household chemicals in food containers.

11. Basic first aid for chest pain

Chest pain can be a sign of serious medical emergency such as heart attack. All chest pain should be referred to a medical professional for evaluation.

Signs of chest pain and a heart attack

» uncomfortable pressure or squeezing pain in the centre of the chest
» pain spreads to shoulders, neck or arms
» difficulty breathing or shortness or breath
» heavy sweating
» feeling dizzy or fainting
» nausea (feeling sick)

Basic first aid steps for chest pain

Assess
» Assess person's condition for signs of chest pain.
» Plan
» Send for medical help.
» Arrange for emergency transportation to the hospital, clinic or health centre.

Implement
» The person is likely to be frightened. Give psychological first aid by reassuring the person and explaining what is happening.
» Help the person to a comfortable position, half-sitting or lying down.
» Ask person to rest and try not to move.

Evaluate
» Assess the person's condition regularly.
» Assess if the person is breathing properly.
» If the person becomes unconscious give basic life support.

12. Basic first aid for stroke

A stroke is when there is bleeding in the brain, or the normal flow of blood to the brain is blocked. Stroke can happen to anyone, but is more common in people with high blood pressure, heart disease or diabetes. Stroke is an emergency. Arrange for emergency transportation to the hospital, clinic or health centre. The sooner treatment is given the better the chance that permanent brain damage can be reduced.

Signs of stroke

A person who experiences a stroke may have any of the following signs. Some of these signs may be minor initially and get worse over time:

- » sudden and severe headache
- » sudden weakness or numbness in the face, arms or legs
- » dizziness, confusion or blurring vision
- » loss of speech, trouble talking or understanding others talking
- » difficulty walking or keeping balance
- » sudden unconsciousness

Basic first aid steps for stroke

Assess
- » Assess the scene for safety.
- » Assess the person's condition by asking the person to do the following:
  - › can you smile
  - › can you close your eyes and lift both arms above your head?
  - › can you repeat the words I say?
- » A person who is NOT able to do one or more of these three things may be having, or has had, a stroke.

Plan
- » Send for medical help.
- » Arrange for emergency transportation to the hospital, clinic or health centre.

Implement
- » Give psychological first aid by reassuring the person and explaining what is happening.

Use a fan to lower temperature | Elevate feet
Apply cold compresses
Give fluids
Have the person lie down

- » Help the person to a comfortable position, lying down if possible. Ask person to rest and try not to move.

Evaluate
- » Assess the person's condition regularly.
- » Assess if the person is breathing properly.
- » If the person becomes unconscious give basic life support.

13. Basic first aid for electrical injury

Electrical injury is caused by touching live, bare electrical wires or by being struck by lightning. Electrical injuries can cause:

- » unconsciousness
- » the heart to stop
- » burns
- » shock
- » convulsions
- » death

Basic first aid steps for a person with an electrical injury

Assess

» Check the scene for safety.
» Warn people to stay away.
» Ensure the source of electricity has been turned off before approaching.
» If the electrical source CANNOT be turned off, remove the electrical source from the person:

» stand on a piece of dry wood and wear rubber shoes
» using a piece of dry wood or plastic, knock the electrical source away from the person
» Check the person for signs of breathing and circulation.
» Check the person for signs of shock.
» Check the person for burns.
» Avoid trees and electrical equipment during a storm.
» Beware of water, which can conduct electricity.

Plan

» Send for medical help.
» Arrange for emergency transportation to the hospital, clinic or health centre if person is unconscious, in shock, or has burns.

Implement

» If unconscious, give basic life support.
» Give psychological first aid by reassuring the person and explaining what is

Practice checklist for electrical injury

	Yes	No
Assess		
Assess the scene for safety		
Warn people to stay away		
Check to verify that source of electricity is turned off before approaching		
Remove electrical source from the person or turn off the electrical source		
Assess person for signs of: • Breathing • Shock • burns		
Plan		
Send for professional help		
Arrange for emergency transportation to the hospital, clinic or health centre if the person is unconscious, in shock, or has burns		
Implement		
Give psychological first aid: reassure the injured person and explain what is happening		
Lie the person down		
Treat for shock		
Treat for burns		
Refer to hospital, clinic or health centre		
Give basic life support if unconscious		
Evaluate		
Monitor person's condition until medical or professional help arrives, or until person can be moved to the hospital, clinic or health centre		
Remain with person until medical or professional help arrives		

happening.

» Treat shock.
» Treat burns.

Evaluate

» Monitor the person's condition until medical help arrives or until person can be transferred to hospital, clinic or health centre.

14. Basic first aid for drowning

A person can drown when water or any fluid stops air from entering into the mouth and nose. Drowning commonly occurs in deep water. It is also possible to drown in shallow water if the person is lying downward and is unable to move. Unconscious people can drown in their own vomit if their head is not tilted back. Small children are most at risk of drowning because they are unable to judge the depth of water, are not able to swim, or are not strong enough to get out of dangerous water. It is important to watch small children closely when they are near water, no matter how deep. Good swimmers can drown in water from exhaustion, or by misjudging the depth of

water when diving. A person who is drowning CANNOT usually shout for help. Signs that a person may be drowning are:

» being in the water fully clothed
» uneven swimming motions, indicating a swimmer is tired
» body sinks, and only the head shows above water

Signs a person has drowned

» bloated stomach
» blue skin, especially around the lips
» cold and pale skin
» cough pink and bubbly sputum
» confusion and/or irritability
» tiredness

Practice checklist for drowning

	Yes	No
Assess		
Assess the scene for safety		
Check the person's condition and level of consciousness		
Plan		
Send for professional help		
Look for a long pole, branch, shirt or rope to extend to person, or life jacket or flotation device such as a lifebelt to throw to person		
Implement		
If safe, swim to the person and carry person to safety		
Give basic life support if unconscious and NOT breathing. Place person in recovery position if breathing		
Cover the person with a blanket or towel to keep warm		
Evaluate		
Check airway to make sure it remains clear and person is breathing		
Maintain in the recovery position until the person is strong enough to get up and walk		
Refer person to a hospital, clinic or health centre for evaluation by a medical professional		
Remain with the person until medical or professional help arrives		
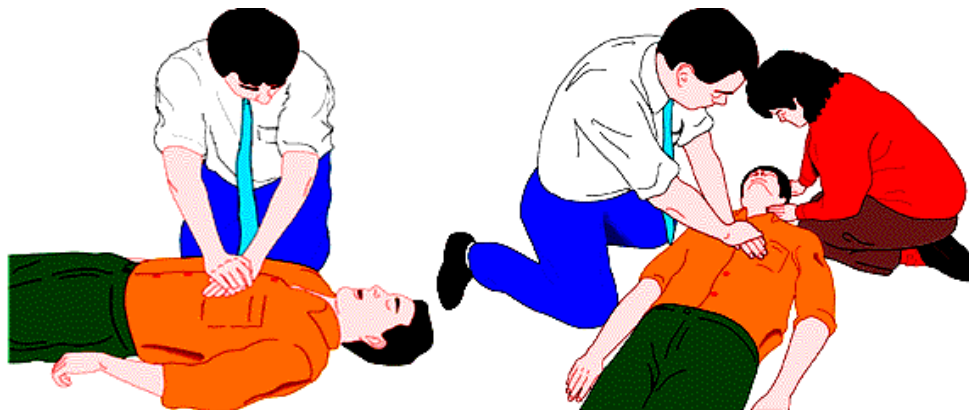
» unconsciousness
» shallow breathing or gasping for air
» person NOT breathing, near or in water

Basic first aid steps for a person who has drowned

Assess
» Check scene for safety, including electrical hazard.
» Check the person's condition and level of consciousness.

Plan
» Send for help such as a lifeguard or person trained in water rescue.
» Look for a long pole, branch or rope to extend to person.
» if possible find a life jacket, lifebelt, or something that floats, to throw to person.

Implement
» Do NOT get into the water unless you are sure it is safe.
» If it is safe and you are able to get to the person, lift the person's head above the water and carry the person to safety.
» If the person is unconscious, give basic life support:
  › if person is NOT breathing, and if you are trained to do so, give CPR
  › when breathing starts, place person in the recovery position to prevent drowning again from vomiting

» Cover the person with a blanket or towel to keep warm. Do NOT overheat.

Evaluate
» Check airway to make sure it remains clear and breathing continues.
» Maintain the person in the recovery position if unconscious and breathing.
» If the person has recovered from a drowning accident, refer to a hospital, clinic or health centre for evaluation by a medical professional.

15. Basic first aid for eye injuries and eye problems

Eye problems can be caused by:
» injury to the eye such as a cut or a strike to the eye
» a small object entering the eye such as dirt or glass
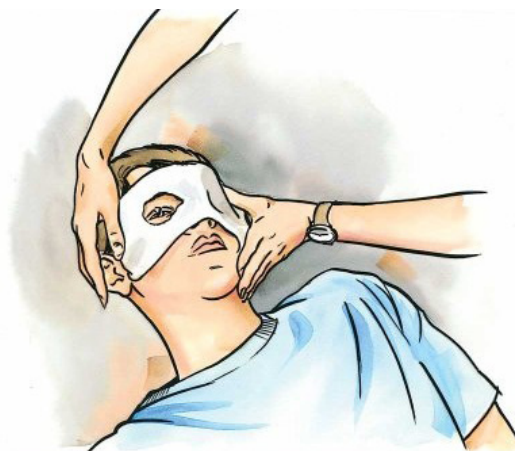
» a large object entering the eye or puncturing the eye
» chemicals or harmful liquids that enter the eye
» infections of the eye
» diseases
» poor nutrition in children, such as lack of Vitamin A

Eye problems can be dangerous because they may cause permanent loss of vision. It is important to seek medical attention for eye problems.

Signs of eye infection

Eye infections are common in small children and can spread from one person to another. Signs of an eye infection are when one or both eyes are:

» red
» painful
» swollen

» watery or teary
» pus draining from the eye

Basic first aid steps for eye injuries

Assess
» Check the scene for safety.
» Check the person's condition.

Plan
» Send for medical help.

Practice checklist for eye problem

	Yes	No
Assess		
Assess the scene for safety		
Check the person's condition		
Plan		
Send for professional help		
Arrange for emergency transportation to the hospital, clinic or health centre		
Implement		
For injury, cut or strike to the eye;		
§ Cover eye with a clean soft pad and loose bandage		
§ Make a cold compress by soaking a piece of cloth in cold water		
§ Prepare to transport the injured person to the hospital, clinic or health centre		
§ Ensure someone stays with the injured person		
For a large object sticking in the eye:		
§ Do NOT pull foreign body out of the eye		
§ Cover the eye loosely		
§ Transfer to a clinic, hospital or health centre		
Evaluate		
Evaluate the eye for reduced swelling and redness		
Remain with the person until medical or professional help arrives		

» Arrange for emergency transportation to the hospital, clinic or health centre.

Implement

For injury, cut or strike to the eye:

» Cover eye with a clean soft pad and loose bandage.
» Make a cold compress by soaking a piece of cloth in cold water:
  › if available, place ice wrapped in plastic or cloth on the eye
  › keep the cold compress over the eye for about 30 minutes to reduce swelling, pain and bruising (black eye)
» Prepare to transport the injured person to the hospital, clinic or health centre.
» Ensure someone stays with the injured person.

For small object in the eye:

» Ask the person to sit comfortably and to slowly look up, down, right, and left, until the foreign body is seen.
» Gently brush it away with a clean, soft piece of cloth or cotton pad, if possible.
» Rinse the bits out with clean cool water, working from the nose outwards.

For a large object sticking in the eye:

» If a foreign body is sticking in the eye do NOT pull it out.
» Cover the eye loosely.
» Transfer to a clinic or hospital.

For harmful liquids:

» Quickly rinse the eye(s) with clean water, working gently from the nose outwards to keep harmful liquid from getting into the other eye.

For infection:

» Wash your hands first.
» Use clean cool water to bathe each eye.
» Use soft cotton pad and wipe each eye

separately from the nose outward. Use a clean pad each time.
» Refer the person to hospital, clinic or health centre.

Evaluate

» Check to see if the eye condition has improved, and that no redness, bruising, swelling or pus exists.

16. Basic first aid for animal and insect bites or stings

An animal or insect bite or sting can be dangerous. Bites or stings can cause infection, pain, shock, an allergic reaction and in some cases death. Babies and young children are most at risk. Some in- sect and animal bites can be poisonous and lead to unconsciousness. Animal bites, especially from dogs, cats, foxes, rats, horses or bats can carry many germs including rabies. If a person is bitten by a dog it is important to find out whether the dog has been ill or behaving strangely. Signs of rabies in a dog are foaming around the mouth and severe thirst. A per- son bitten by a dog with rabies will need to be referred to a hospital, clinic or health centre where anti-rabies vaccine is available. Some people have allergic reactions to bee stings. Signs of allergic reaction are swelling of the lips or throat, itching, difficulty breathing and sometimes

Honeybee
Venom sac and stinger
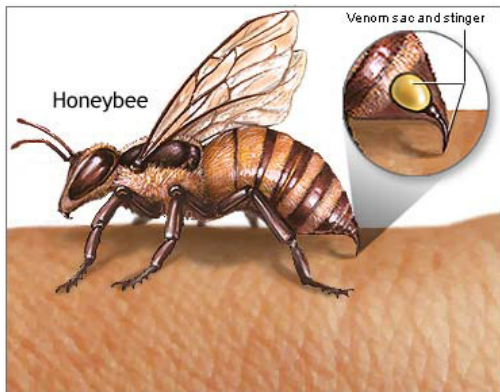
death. It is important to get immediate medical attention if the person develops an allergic reaction. To reduce the risk of a snake bite, avoid picking up and playing with snakes. Snakes often bite when they are afraid or surprised. Scorpion stings are painful but not fatal. Most spider bites are not dangerous, although some spiders have venom that can cause pain, swelling, fever, numbness, headache, sweating and nausea.

First aid steps for animal and insect bites or stings

Assess
» Check scene for safety, to ensure the animal is no longer present.
» Check the person's condition.
» Assess the wound.

Plan
» Send for help.
» Protect yourself.

Implement
» Provide psychological first aid.
» Reassure person that first aid will be given and explain what is happening.

Animal bites:
» Clean the wound with water.
» Stop any bleeding.
» Apply clean dressing and cover the wound.
» Ask the person to identify the animal and describe the animal's behaviour.
» Send the person to get professional medical attention.

Bee or wasp sting:
» Scrape away the sting if still in the wound.
» Apply a cold pack to the wound to keep swelling down.
» If person is allergic to bee stings, transport to hospital, clinic or health centre immediately.

Snake bite:
» Remain calm.
» Ask the person to lie down and keep still.
» Immobilize the bitten arm or leg.
» Use water to wash out the wound. Do NOT scrub the wound.
» Remove any jewellery, because swelling can spread quickly.
» Do NOT use a tourniquet or suction material.
» Do NOT cut the wound to remove the venom.
» Do NOT suck on the wound.
» If possible, identify the type of snake.
» Transport to hospital, clinic or health centre immediately, while keeping the person as still as possible.

Scorpion sting:
» Apply a cold pack to the wound to keep

Stinger
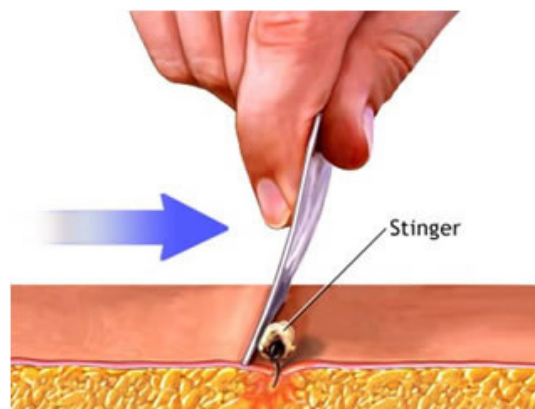
swelling down.
» Send for medical help if the pain does not decrease.

Spider bite:
» Clean the area with water.
» Apply a cold pack to the wound to keep swelling down. Send for medical help if the pain does not decrease.

Evaluate
» Check that qualified assistance has been called or transportation has been arranged to hospital, clinic or health centre.
» Observe the person's condition.
» If the person becomes unconscious, give basic life support.

17. Basic first aid for fever

Fever occurs when a person's body feels hot to touch. Fever is your body's reaction to infection. Fevers can cause the body to lose water and become dehydrated. It is important to give plenty of fluids to drink if the person is conscious. Fever in very young children and babies may be a sign of serious illness. Fever can be a sign of malaria, dengue, tuberculosis or respiratory infection. If the person has a high fever in an area where there is malaria, it is important to seek medical help immediately. People with fever in a malaria area need to be
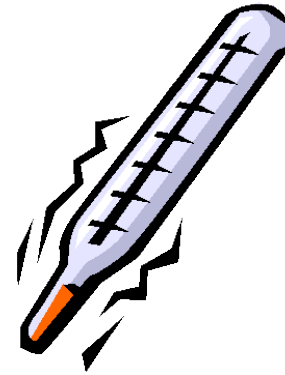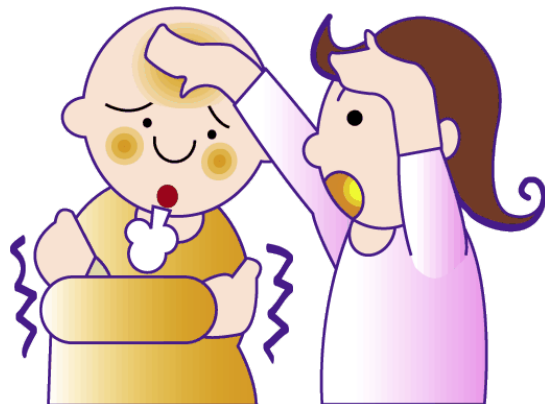
treated with the correct anti-malaria medicine as soon as possible.

Signs of fever

» skin feels hot to touch, hotter than your own body
» shivering or the person will feel cold
» sweating

Basic first aid steps for a person with fever

Assess
» Check the person's condition.
» The person's body will feel hot to touch.
» Ask about other symptoms such as rash, headache, vomiting, cough or pain.

Plan
» If the fever is very high, send for medical help.
» If the fever is in a baby or young child, arrange transport to hospital, clinic or health centre.

Implement
If the person is unconscious give basic life support. If the person or child can drink, eat and move about:
» give more fluids to drink than usual
» encourage babies to breastfeed as much as possible
» encourage the person to rest
» eat nutritious food such as soups, rice, and

pureed fruits and vegetables
» cool the body down by removing excess clothing and sponging the body with tepid (lukewarm) water

Evaluate
» Check the person's condition regularly.
» Remove any covering if the person is too hot. Add covering if the person becomes cold.
» If the person becomes unconscious give basic life support.
» Send the person for medical help as soon as possible.

18. Basic first aid for convulsions

A convulsion is an uncontrollable body shake that causes the person to collapse, froth at the mouth, and sometimes pass urine. The person having the convulsion is not aware of what is happening. Convulsions are sometimes called "fits". There are many causes of convulsions. Watching a person having a convulsion can be frightening. It is important to stay calm and reassure family members and people standing nearby to stay calm. Convulsions are NOT infectious. It is important not to stigmatize people who have convulsions. It is important to protect the person having a convulsion from harm or injury. After the person finishes shaking s/he may not wake up right away. When a person wakes up from a convulsion they will often be confused and frightened. It is important to comfort and reassure the person and ex- plain to them what happened. If a pregnant woman has a convulsion it can be very dangerous both for the mother and the unborn baby. It is important to get medical help immediately and prepare to transport the woman to hospital, clinic or health centre.
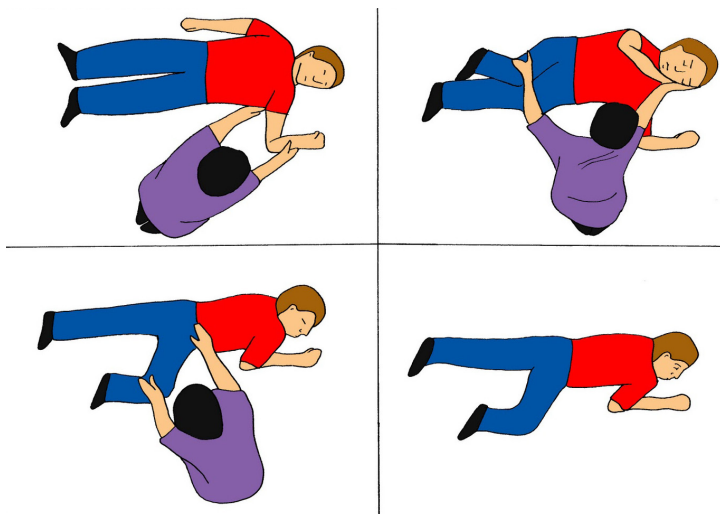
First aid steps for a person who is convulsing

Assess
» Check the scene for safety.
» Check the person's condition.

Plan
» Keep calm.
» Ensure safety of the person convulsing.
» Reassure people standing near by not to be afraid.

Implement
» Help the person to the ground and protect head from injury.
» Remove any objects nearby to prevent injury.
» Let the convulsion end. Do NOT try to stop the shaking.
» Do NOT place anything in the person's mouth.
» Do NOT give any drinks, medicine or food.
» When the shaking stops, the person may sleep. Put person in recovery position and stay with them until they wake up.
» When the person wakes up, introduce yourself and explain what happened. Give psychological first aid.
» If the person becomes unconscious give basic life support.

Evaluate

» Monitor the person's condition.
» Refer the person to the hospital, clinic or health centre.

19. Infection control in first aid

Blood and body fluids such as spit, vomit and faeces have germs that can be passed to others. It is important to practise infection control to prevent the spread of germs when giving first aid. There are four steps volunteers can practise to prevent infection:

1. Wash hands:

» always wash hands before and after giving first aid and care
» if blood (or other body fluid) splashes into eyes or mouth, rinse them immediately with plenty of clean water

2. Cover any cuts or open wounds on hands:

» cover any cuts, grazes, or other open wounds with plaster, clean cloth or bandag
» if possible, wear gloves
» alternatively, use a clean plastic bag as a barrier before coming into contact with blood or an open wound

Arterial

Capillary

Venous

3. Avoid direct contact with blood:

» if a person is bleeding, ask him/her to put pressure on the wound himself/herself
» use plenty of clean gauze, thick dressings or a plastic bag as a barrier to avoid direct contact with blood

4. Clean up blood spills:

» burn bloodstained bandages, or bury them as deep as possible in plastic bags
» treat stains with household bleach
» wash bloodstained clothes, linens and instruments in very hot water
» if you prick or wound yourself when handling blood or body fluids, immediately:
   › wash the area well with soap and clean water
   › report any volunteer injury to coach, supervisor or local medical personnel
» advise the person to seek medical help especially if wounds look red, hot and painful to touch after some days
» make sure you are protected against tetanus
» Proper hand washing with soap and water
» Wet your hands with warm, running water and apply liquid soap or use clean bar soap.
» Lather well. Rub your hands vigorously together for at least 15 to 20 seconds.

» Scrub all surfaces, including the backs of your hands, wrists, between your fingers and under your fingernails.
» Rinse well.
» Dry your hands with a clean or disposable towel.

20. Basic first aid kit

A stocked first aid kit can help with first aid responses for common injuries. A volunteer's first aid kit should always be ready and nearby, so that it can be accessed quickly. It is important to keep the first aid kit stocked and know where to get items that need replacing.Items can also be purchased from local sources. The first aid kit and stock must be checked frequently to ensure there are sufficient supplies of good quality. A volunteer needs to know how to use the items in the first aid kit.

Recommended first aid kit contents

Stock the first aid and disaster preparedness kit with:
» sterile gauze bandages in different sizes
» large quantity of non-sterile gauze in different sizes
» some cotton and stretch bandages
» adhesive tape
» safety pins

» adhesive plasters in different sizes
» triangle bandages
» cotton wool
» soap
» if available, reusable or disposable gloves
» bottle of clean water
» if available, oral rehydration salt (ORS) packets
» scissors
» candles and matches
» pencil, paper and a notebook
» list of names and contact telephone numbers for emergency care services

21. Basic life support

Basic life support is a life-saving technique to maintain the Airway, Breathing and Circulation of an injured or sick person before professional medical help arrives.

» Airway: keeping the nose, mouth and throat open and free from obstruction so air can get to the lungs.
» Breathing: keeping air flowing in and out of the lungs if the person has stopped breathing, by giving mouth-to-mouth breaths.
» Circulation: keeping the movement of blood through the heart and the body if the person's heart has stopped beating, by giving chest compressions.

ABC steps of cardiopulmonary resuscitation (CPR)

Assessment: determine unresponsiveness by:
» tap or gently shake shoulders
» ask, "Are you alright?"
» if person is conscious, leave in position you found him, unless in danger. Determine what happened and whether help is needed. Monitor until help arrives

Get help:
» shout "Help!"
» if unconscious, position on back
» turn slowly on to back, while supporting the head and neck

Airway
Open the airway with head tilt/ chin lift:
» carefully tilt the head back
» lift the chin to open the airway

C- A -B
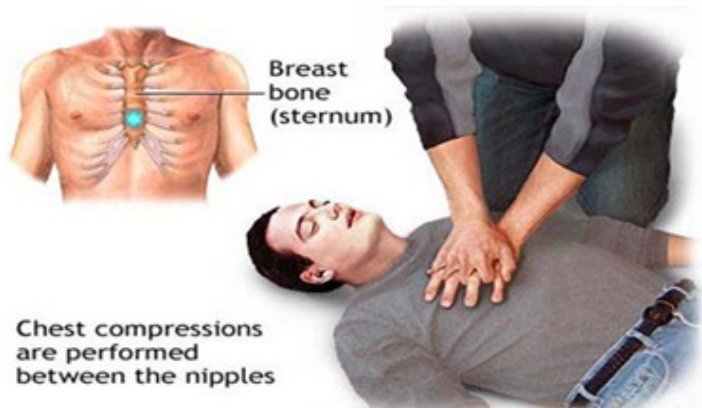
Breast bone (sternum)

Chest compressions are performed between the nipples

» if the person is unresponsive, has an open airway, and is breathing, turn the person onto his or her side (recovery position) with the person's hand in front. This will prevent choking if the person vomits.

Breathing
Assessment: determine if breathing (allow ten seconds):
» look to see if chest is moving up and down
» listen for sounds of breathing at the person's mouth
» feel for breath on cheek

If not breathing, send for medical help and start with chest compressions. If obstructed, clear the airway:

Circulation
Begin chest compressions:
» 30 compressions, at approximately 100 per minute
» Give two rescue breaths
» Alternate 30 compressions with two rescue breaths.

Continue until:
» help arrives
» the person begins breathing normally
» you can no longer continue due to exhaustion

CPR for an infant and a child

Infant = less than one year old
Child = between the age of one year and onset of puberty

The same sequence of chest compressions and rescue breaths applies to children and infants. There are four differences to consider:
» The chest compressions on children and infants should be made over the breast bone to a depth of one third of the chest depth.
» For infants, only use two fingers to do the compressions.
» Children will need one or two hands to do the compressions.

21: Collection and burial of dead

Management of the dead is one of the most difficult aspects of disaster response, whether the disaster is man-made or natural. Management, identification and burial of the dead are the responsibility of the VDMCs and local authorities.

Collection of dead bodies and body parts

Body recovery is the first step in managing dead bodies and is usually chaotic and disorganized. The conditions and areas need to be clear before volunteers can begin assisting with the collection of dead bodies. Body recovery only lasts a few days or weeks, but may be prolonged following earthquakes or very large disasters. Stretchers and body bags should be available for volunteers to transport the dead bodies.

Identification of the dead

Without cold storage a dead body will decompose rapidly. Cold storage slows the rate of decomposition and preserves the body for identification. Identification of dead bodies is done by matching the deceased (physical features, clothes, etc.) with similar information about individuals who are missing or presumed dead. Visual identification or photographs of fresh bodies are the simplest way of identifying a dead body. Local authorities may ask volunteers to complete identification forms to describe basic information about dead bodies or body parts that can aid later identification procedures. Bodies should NOT be buried before they are identified.

Burial of the dead

The local authorities are responsible for the construction and the location of graves. Volunteers can assist the local authorities by following their instructions.
» All identified dead bodies should be released to relatives or their communities for disposal ac- cording to local custom and practice.
» Careful thought must be given to the location of any burial site. The site should be acceptable to communities living near the burial site. The site should be close enough for the affected community to visit.
» If possible, human remains should be buried in clearly marked, individual graves.
» For very large disasters, communal graves may be necessary.
» Each body must be buried with its unique reference number on a waterproof label.
» This number must be clearly marked at ground level and mapped for future reference.
» Safe handling of dead bodies

Support for families and survivors

» The dead and the bereaved should be respected at all times.

» The priority for affected families is to know the fate of their missing loved ones.
» Honest and accurate information should be provided at all times and at every stage of the recovery and identification process.
» A sympathetic and caring approach is owed to the families throughout.
» Mistaken identification should be avoided.
» Psychosocial support for families and relatives should be considered.
» Cultural and religious customs should be respected.

Volunteer protection

After most natural disasters there is fear that dead bodies will cause epidemics. Dead bodies from natural disasters do NOT cause epidemics. There is a need to be cautious, however, if deaths were caused by a contagious disease.

Volunteers should protect themselves when handling dead bodies by:

» wearing protective gowns and gloves
» washing their hands with soap and water or ash and water, after handling dead bodies
» cleaning and washing all the equipment, clothing and materials used
» working under the supervision of the local authorities
» seeking psychological support from the local authorities etc. to deal with emotional stress

Volunteer actions

You can assist after a disaster by:

» informing the community that dead bodies from a natural disaster do NOT cause epidemics giving psychological first aid to survivors, especially to children

» following the instructions of the local authorities

Search and Rescue

In this module the participants will learn how to assess, plan, implement search and rescue operations. Search and rescue is a specialized task and must be carried out by S&R Taskforce. The taskforce will carry out the activities in during and post disaster period and will comprises of members from the VDMC.

Role and Responsibilities of S&R Team:

» Prepare an updated list of the vulnerable people in the village at regular intervals.

SHALLOW WATER CROSSING
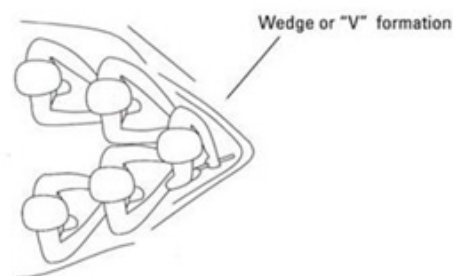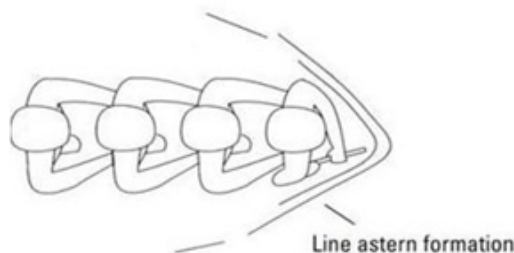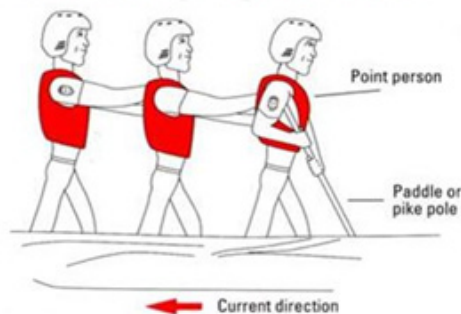
- » Keep the S&R kit ready.
- » Check and replace equipment on regular intervals.
- » Carry our S&R activities as and when required.
- » Support VDMC is developing the S&R contingency fund.

Role and Responsibilities of VDMCs:

- » Selection of volunteers to form S&R Taskforces
- » Coordinate with Project team and UDMCs for training of the Taskforce volunteers on S&R.
- » Strive for Skill up gradation of the Task force.
- » Ensure regular meetings of the taskforce members to plan, review and follow up taskforce activities.
- » Ensure development of S&R contingency fund

Role and Responsibilities of VDMCs:

- » Support VDMCs in identification and selection of volunteers to form S&R Taskforces
- » Coordinate with Project team and local authorities for training of the Taskforce volunteers on S&R.
- » Advocate and seek support for sustainability of Taskforce
- » Strive for Skill up gradation of the Task force.
- » Ensure development of S&R contingency fund at village and UC level.

Previous disasters have shown that the first response to trapped victims immediately after almost every disaster is by spontaneous, untrained, and well-intentioned persons who rush to the site of a collapse in an attempt to free the victims. More often than not, these spontaneous rescue efforts result in serious injuries and compounded problems. Rescue efforts should be planned and practiced in advance. People, including rescuers, have died when the rescuers weren't prepared and trained.

Goals of Search and Rescue:

The goals of search and rescue operations are to:

- » Rescue the greatest number of people in the shortest amount of time
- » Get the walking wounded and ambulatory victims out first
- » Rescue lightly trapped victims
- » Keep the rescuer safe

Search and Rescue Operation(s):

Search and rescue consists of three separate operations:

- » Planning & Assessment: involves assessing the situation and determining a safe action plan
- » Search: involves locating victims and documenting their location.
- » Rescue: involves the procedures and methods required to extricate the victims.

Planning and Assessment:

Search and rescue requires necessary planning and assessment at the beginning of the operation and continually as long as the operation continues.

Planning and assessment Steps:

1. Gather facts
2. Assess damage

Planning and assessment checklist

Step 1: Gather Facts		
Time		
§ Does the time of day or week affect search and rescue efforts? How?	Yes	No
Type of Construction and Terrain		
§ What type(s) of structure(s) is (are) involved? § What type(s) of construction is (are) involved? § What type(s) of terrain is (are) involved?		
Occupancy		
§ Are the structures occupied? If yes, how many people are likely to be affected?	Yes	No
§ Are there special considerations (e.g., children, elderly)? If yes, what are the special considerations?	Yes	No
Weather		
§ Will weather conditions affect your safety? If yes, how will your safety be affected?	Yes	No
§ Will weather conditions affect the search and rescue situation? If yes, how will the search and rescue situation be affected?	Yes	No
Hazards		
§ Are hazardous materials involved? If yes, at what location?	Yes	No
§ Are any other types of hazards involved? If yes, what other hazards?	Yes	No
Step 2: Assess and Communicate the Damage		
§ For structural searches, take a lap around the building. Is the damage beyond the S&R team capability?	Yes	No
If yes, what special requirements or qualifications are required? § Have the facts and the initial damage assessment been communicated to the appropriate person(s)?	Yes	No
Step 3: Consider Probabilities		
§ Is the situation stable?	Yes	No
§ Is there great risk or potential for more disaster activity that will impact personal safety? If yes, what are the known risks? § What else could go wrong?	Yes	No
Step 4: Assess Your Own Situation		
§ What resources are available with which you can attempt the search and rescue?		
§ What equipment is available?		
Step 5: Establish Priorities		
§ Can a search and rescue be safely attempted by S&R members? If no, do not attempt a search and rescue.	Yes	No
§ Are there other, more pressing needs at the moment? If yes, list.	Yes	No
Step 6: Make Decisions		
§ Where will deployment of available resources do the most good while maintaining an adequate margin of safety?		
Step 7: Develop Plan of Action		
· Determine how personnel and other resources should be deployed.		
Step 8: Take Action		
§ Put the plan into effect.		
Step 9: Evaluate Progress		
§ Continually assess the situation to identify changes in the: Scope of the problem Safety risks Resource availability		

Women, children, disables needs special attention in search and rescue operations

3. Consider probabilities
4. Assess your situation
5. Establish priorities
6. Make decisions
7. Develop a plan of action
8. Take action
9. Evaluate progress

Specific Safety Considerations for Search and Rescue:

Regardless of the severity of structural damage, rescuer safety must be the primary concern. The two most frequent causes of rescuer deaths are:

» Disorientation
» Secondary collapse

Follow these guidelines during all search and rescue operations:

» **Use a buddy system:** Successful search and rescue depends on teamwork.
» Be alert for hazards (e.g., power lines, natural gas leaks, hazardous materials, sharp objects, etc.). You should never attempt to search an area where water is rising.
» **Use safety equipment:** Wearing gloves and a helmet will protect a rescuer's hands and head. Also, the primary cause of rescuer problems after working in a structural collapse is breathing dust, so a dust mask is essential. However, a dust mask will not filter out all harmful materials. If the presence of chemical or biological agents is suspected, CERTs must evacuate to an upwind location and notify professional responders.
» **Have backup teams available** to allow rotating of teams, prevent fatigue, and ensure help if a team gets into trouble. Have teams drink fluids and eat to keep themselves fresh

SEARCH

Search Methodology-Interior Search

» Upon entering each space or room, call out to victims. Shout something like, "If anyone can hear my voice, come here." If any victims come to you, ask them for any information that they may have about the building or others who may be trapped, then give them further directions such as, "Stay here" or "Wait outside" (depending on the condition of the building).

Effective Search Methodology
- Indicates rescuer location
- Prevents duplication of effort
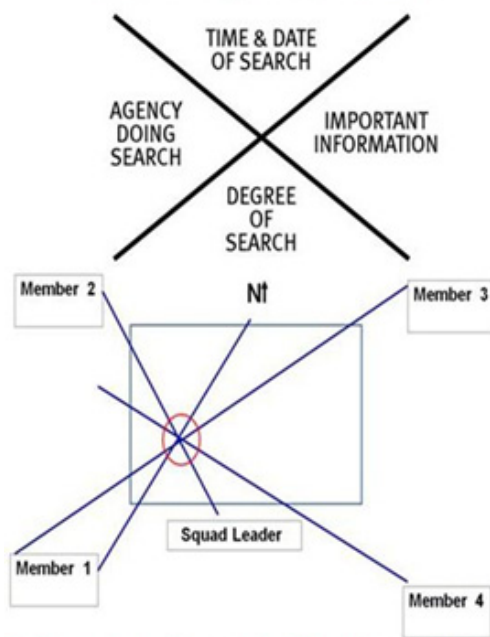
Effective Search Methodology
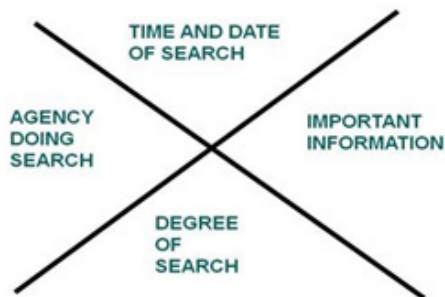
» Remember that even those who are able to get to you may be in shock and confused. When giving directions to victims, CERT members should look directly at the victims, speak in short sentences, and keep their directions simple.

» Use a systematic search pattern. Ensure that all areas of the building are covered. Examples of systematic search patterns to use include:
  › Bottom-up/top-down
  › Right wall/left wall

Keep in mind that every interior space has six sides — including the floor and ceiling. Rescuers must check all six sides especially to locate hazards such as fixtures that may be hanging from the ceiling.

» Stop frequently to listen. Listen for tapping, movement, or voices.

» Triangulate. Triangulation can be used when a potential victim's location is obscured. If access permits, three rescuers, guided by victim sounds, form a triangle around the area and direct flashlights into the area. The light shining from different directions will eliminate shadows that could otherwise hide victims.

Triangulation should not be used as an initial search method.

Report results. Keep complete records both of removed victims and of victims who remain trapped or are dead. Report this information to emergency services personnel when they reach the scene.

Search Methodology -Exterior Search

In addition to searching inside a structure, CERT members might also be required to search open areas outside of buildings.

Conducting Search Operations
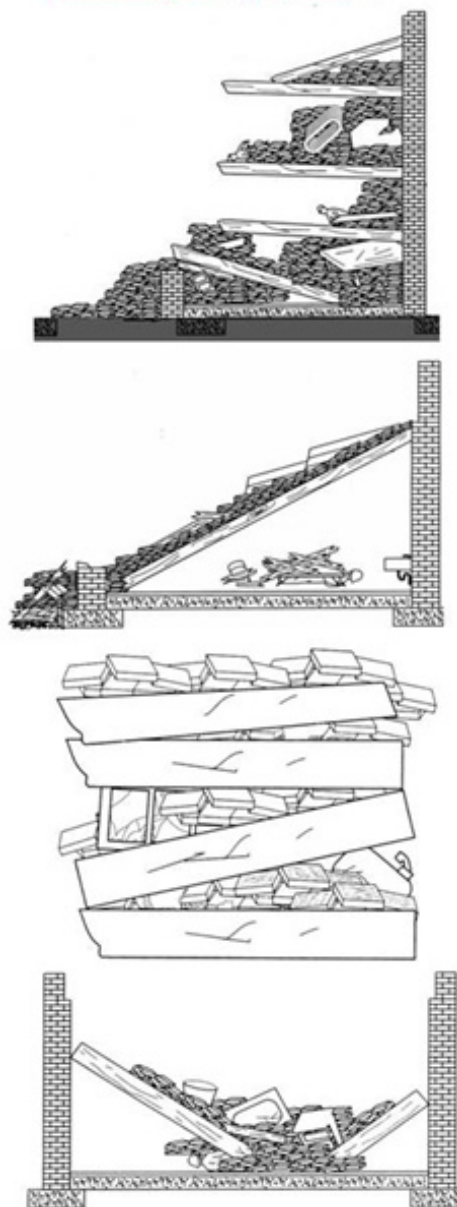
Conducting an effective search in open areas requires that searchers work methodically and follow standard procedures established by those in charge of the search operation. This is true in all cases, and especially if the area to be searched is a crime scene where all potential evidence must be protected.

When searchers are needed, they assemble in a central staging area and sign in. Authorities will brief the searchers on what they will be

looking for, what areas they are responsible for searching, the pattern of the search, and what they should do if they discover the missing person, evidence, or related information.

Exterior search patterns include grid, line, quadrant or zone, and spiral. A grid pattern is typically used in large open areas or small areas when a hands-and-knees search is conducted.

To conduct a grid search:
» The area to be searched is viewed as a grid, with searchers initially positioned at one side of the grid.
» The distance between the searchers should be set according to visibility and debris. In all cases, searchers must remain within line of sight and voice contact with searchers on either side of them.
» It is also critical that the area to be covered by each searcher overlaps that of the searchers on either side of them.
» The searchers proceed, maintaining as straight a line as possible across the entire search area. As each searcher moves across the area, they conduct a thorough search for victims within their designated row of the grid.
» In order to ensure full coverage, CERTs must record each area that has been searched.

A grid search might be particularly useful following a tornado or hurricane.

RESCUE

Rescues involve three primary functions:

» Moving objects and debris to free victims and to create a safe rescue environment
» Triaging victims by checking for the "three killers," airway obstruction, major bleeding,

and shock
» Removing victims as safely and as quickly as possible

Creating Safe Environment:

There are three safety considerations for all rescue operations:

» To maintain rescuer safety
» To triage in lightly and moderately damaged buildings
» To evacuate victims as quickly as possible from moderately damaged buildings while minimizing additional injury

None of these can be achieved without creating as safe an environment as possible before attempting rescue. There are, therefore, certain precautions that rescuers must take to minimize risk.

Precautions to Minimize Risk:

There are certain precautions that rescuers

PLATFORM CRIBBING

BOX CRIBBING

must take to minimize risk and increase their chances of achieving their rescue goals.

» Know your limitations. Many volunteers have been injured or killed during rescue operations because they did not pay attention to their own physical and mental limitations. Rescuers should take the time to eat, drink fluids, rest, and relax so that they can return with a clear mind and improved energy.
» Follow safety procedures. Team members should always use the proper safety equipment required for the situation and follow established procedures, including:
  › Work in pairs.
  › Triage and treat only in lightly damaged buildings.
  › In moderately damaged buildings, triage only and remove victims as quickly as possible.
  › Never enter an unstable structure.
  › Lift by bending the knees, keeping the back straight, and pushing up with the legs.
  › Carry the load close to the body.
  › Lift and carry no more than is reasonable.
  › Remove debris as needed to minimize risk to rescuers and to free entrapped victims

Removing Victims:

There are two basic types of victim removal:
» Self-removal or assist
» Lifts and drags

It is usually best to allow an ambulatory victim to extricate him- or herself. Be aware that sometimes ambulatory victims are not as strong and uninjured as they think they are. When victims become free from entrapment, they may need assistance to exit the structure.

Extrication Method

The type of extrication method selected should depend on the:
» General stability of the immediate environment
» Number of rescuers available
» Strength and ability of the rescuers
» Condition of the victim

If safety and time permit, you should not use lifts and drags to remove victims when closed-head or spinal injury is suspected. In such cases, the spine must be stabilized using a backboard. Doors, tables, and similar materials can be used as improvised backboards. The backboard must be able to carry the person and proper lifting techniques must be used. When moving victims, rescuers must use teamwork and communication and keep the victim's spine in a straight line. Remember, rescuer safety and the condition of the building will dictate the approach.

One-Person Arm Carry

If a rescuer is physically able and the victim is small, the rescuer may use the one-person arm carry to lift and carry the victim by:

» Reaching around the victim's back and under the knees
» Lifting the victim while keeping the rescuer's back straight and lifting with the legs

Consider the size of the victim and the distance he or she needs to be carried before using this carry.

Pack-Strap Carry

Another way for a single rescuer to lift a victim safely is by using the one-person pack-strap

Two-Person Carry

Victim removal is easier when multiple rescuers are available. The victim's upper body will weigh more than his or her lower body; therefore, rescuers with greater body strength should be positioned at the victim's upper body.

A victim may be removed using a two-person carry:

» Rescuer 1: Squat at the victim's head and grasp the victim from behind around the midsection. Reach under the arms and grasp the victim's left wrist with rescuer's right hand, and vice versa. Crossing the wrists creates a more secure hold on the victim and also pulls the victim's arms and elbows closer to their body. This will be helpful if the victim is carried through any narrow passages.

» Rescuer 2: Squat between the victim's knees, facing either toward or away from the victim. Note that, if the rescuers will carry the victim over uneven areas such as stairs, the rescuers will need to face each other. Grasp the outside of the victim's legs at the knees. Both rescuers: Rise to a standing position simultaneously, keeping backs straight and lifting with the legs. Walk the victim to safety.

Chair Carry

carry. Using this method, the rescuer should:

» Step 1: Stand with his or her back to the victim.
» Step 2: Place the victim's arms over the rescuer's shoulders and grab the hands in front of the rescuer's chest.
» Step 3: Hoist the victim by bending forward slightly, until the victim's feet just clear the floor.

Note: The pack-strap carry is most effective for quick removal of a victim over a short distance.

Two rescuers can also remove a victim by seating him or her on a chair:

» Rescuer 1: Cross the victim's arms in his or her lap. Facing the back of the chair, grasp the back upright.
» Rescuer 2: Grasp the two front legs of the chair.
» Both rescuers: Tilt the chair back, lift simultaneously, and walk out.

It is best to use a sturdy, non-swivel chair for this lift.

Note that, if rescuers will need to carry the victim over uneven surfaces such as stairs, the
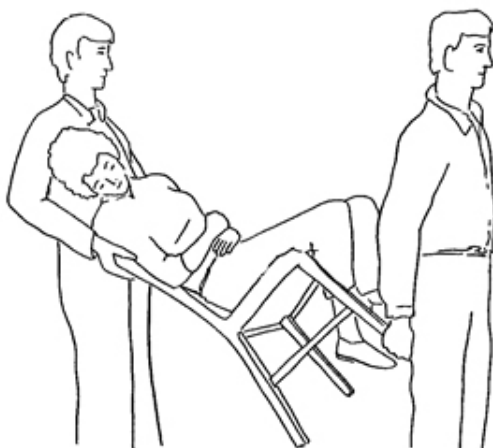
rescuers must face each other.

Blanket Carry

You can use the blanket carry for victims who cannot be removed by other means. The blanket carry requires four to six rescuers to ensure stability for the victim and that one rescuer must be designated the lead person:

» Step 1: Position a blanket next to the victim, ensuring that the blanket will extend under the victim's head.
» Step 2: Tuck the blanket under the victim, and assist the victim in moving to the center of the blanket. If necessary, use the log rolling technique to position them on the blanket.
» Step 3: With three rescuers squatting on each side, roll up the edges of the blanket against the victim to grasp a "handle." The lead person checks the team for even weight distribution and correct lifting position.
» Step 4: The lead person calls out, "Ready to lift on the count of three: One, two, three, lift."
» Step 5: The team lifts and stands in unison — keeping the victim level — and carries the victim feet first.

The team must also lower the victim together, using the following steps:
» Step 1: The lead person calls out, "Ready to lower on the count of three: One, two, three, lower."
» Step 2: The team lowers the victim in unison, exercising caution to keep the victim level.

A variety of materials — such as blankets, carpets, and folded tables — can be used as improvised stretchers.

Log Rolling
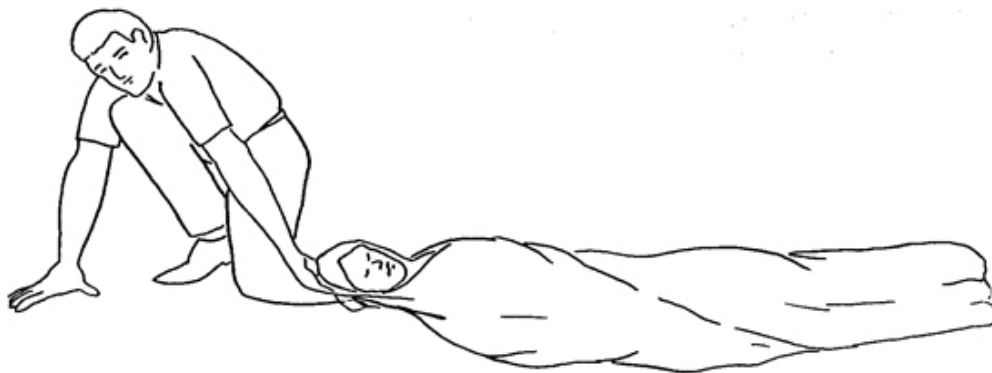
Log rolling should be used to move victims with a suspected or confirmed cervical spine injury. If the victim is unconscious, assume he or she has a cervical spine injury. The rescuer at a victim's head should give commands as fellow rescuers roll the victim as a single unit onto the blanket, backboard, or other support.

Firefighting

Fire is a chemical reaction between three elements: oxygen, heat and fuel. If any of the three elements disappear, the fire will disappear too.

» Fuel - Fuel or combustible materials e.g. newspapers, clothing, curtains, carpet, furniture, etc.
» Oxygen - Present in the air.
» Heat - Flames, electricity, hot metal, or even a tiny spark of fire.

If conditions are right, a fire can start almost anywhere at any time. Most fires occur when the weather is dry and hot. The source for starting a fire can be natural, for example a lightning strike, or human-made, like careless use of fire or even cigarettes. Fuels include anything from dry grass and leaves to branches, wood or houses! Different types of fuel burn at different temperatures, because each substance has a so-called "ignition temperature". The oil in the leaves of eucalyptus trees is one of the most explosive fuels that exist in nature due to its low ignition temperature.

Fires at Home
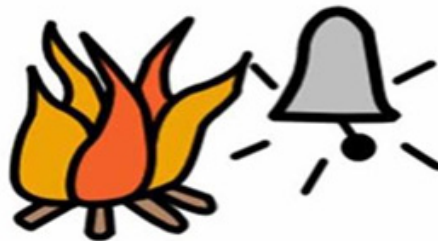
Your home together with your loved possessions can be destroyed by fire mainly due to carelessness. It can also injure or kill members of your family. The major causes of

fire in homes include:

» Matches & smoking hazards
» Overheating & cooking hazards
» Electrical hazards
» Lighted Joss-sticks and Candles
» Children playing with matches & other lighting apparatus
» Flammable liquids; e.g. petrol, paints, thinners
» Domestic Liquefied Petroleum Gas
» Burning rubbish
» Curtains

Home Fire Escape Plan

Designing a home escape plan, draw the floor plan of your home on a piece of paper. Post your plan where it can easily be seen (such as on your refrigerator). Be sure to include:

» All doors and windows
» Primary and alternate exits
» Emergency phone numbers
» Outdoor meeting place
» Special assignments (who will call fire department, sound the alarm, check that everyone got out, etc.)
» Location of smoke detectors

Hold fire drills regularly:

VDMC's plan may look good on paper, but will it really work? Regular drills allow you to test your plan and adjust it as needed. Practice using alternate escape routes. Children should practice getting out of windows (only while under a parent's/guardian's supervision) Special plans/arrangements Certain people face greater risks

during a fire. You may need to make special arrangements for:

» Infants/ Children
» Elderly People
» Hearing Impaired
» Visually Impaired
» Mentally Retarded
» Physically Handicapped

Fire Survival Tips

» Crawl to the door on your hands and knees, not on stomach. Smoke and gases rise to the ceiling and the air is safer close to the floor.
» Feel the door before opening it. If it's cool, brace yourself against it and open it carefully. If you notice smoke or heat, close it immediately.
» Use an alternate exit (second way out - window if possible) if the door is hot or
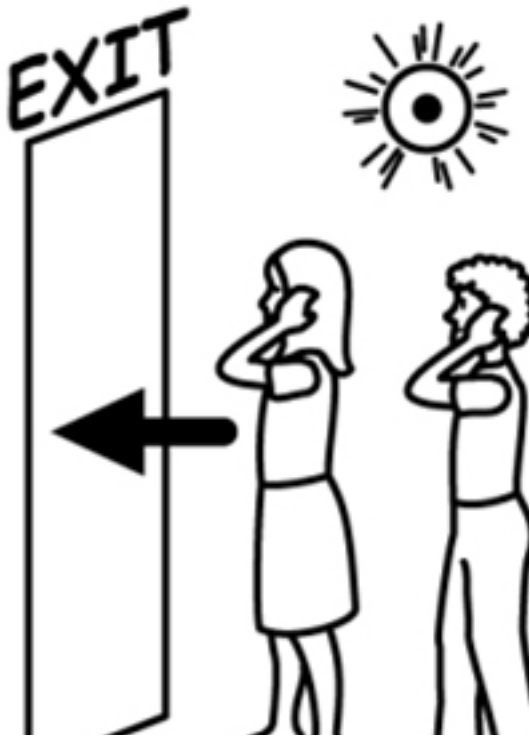
smoke comes through it.

» Signal for help by waving a sheet or any light colored clothing if you cannot escape through the window.

» Go to your family meeting place in front and away from your home to check that everyone got out and to meet the fire department.

» Never go back into a burning building. Tell firefighters immediately if someone is left in the building.

» Seek medical help for burns and other injuries

Fire response Procedures

First-attack fire response procedures involve six steps that should be taken when a fire occurs:

» Warn anyone in danger
Tell anyone in danger about the fire and warn them to get out of the area.

» Report the fire to the relevant authorities

Report the fire to the local emergency control organisation and the relevant fire/emergency service, or make sure it has been reported.

» Decide whether to attack the fire Decide whether or not to attack the fire, based on the four 'Ss':
Support: Never fight a fire alone. Always have someone backing you up and/or getting help for you.
Size: Unless you are very experienced, a fire bigger than about 1 m by 1 m is too large for you to combat using first-attack firefighting skills.
Surroundings: Hazardous chemicals or sealed containers (for example gas cylinders and aerosol cans) may suddenly explode or give off very toxic fumes in a fire. Such fires are too dangerous for you to combat using first-attack firefighting skills.

Smoke: If there is a danger of smoke, fumes and heat affecting you, the situation is probably too dangerous for you to combat using first-attack firefighting skills.

» Select the correct firefighting agent and equipment; If it is safe to attack the fire, select the most appropriate agent and equipment to use according to the type of material that is burning.

» Safely attack the fire
› Attack the fire from upwind if it is out of doors or in a breezy area (that is, the wind should not be blowing the smoke towards or near you).
› Attack the fire from uphill if it involves spilt flammable liquids.
› Do not open a door that is hot or shows signs of fire behind it.
› Always have a safe escape route available to you.

› Check your equipment before committing yourself to firefighting.

› Keep low and stay clear of smoke, fumes and heat.

› Fight the fire from a safe distance, using the maximum effective range of your equipment.

› Lie used extinguishers on their sides to indicate they are discharged.

› If the fire is not being safely extinguished, evacuate the area, closing doors behind you when you and other occupants are clear.

» Follow the correct procedures after the fire is out

› If possible, do not disturb the fire area. This allows the cause to be more easily determined.

› Keep out of smoke and affected areas, even if the fire appears to be out.

› Do not reoccupy the area until the responsible firefighting organization declares it safe.

› Arrange for any equipment used to be serviced and recharged.

Knots

The eight knots in this section are the most basic knots - the building blocks of knot tying.

General Principles of Knot Tying

Certain general principles govern the tying of all knots and apply to all suture materials.

» The completed knot must be firm, and so tied that slipping is virtually impossible.

» The simplest knot for the material is the most desirable.

» The knot must be as small as possible to prevent an excessive amount of tissue reaction when absorbable sutures are used, or to minimize foreign body reaction to no absorbable sutures. Ends should be cut as short as possible. In tying any knot, friction between strands ("sawing") must be avoided as this can weaken the integrity of the suture.

» Care should be taken to avoid damage to the suture material when handling.

» Avoid the crushing or crimping application of surgical instruments, such as needle holders and forceps, to the strand except when grasping the free end of the suture during an instrument tie.

» Excessive tension applied by the surgeon will cause breaking of the suture and may cut tissue. Practice in avoiding excessive tension leads to successful use of finer gauge materials.

» Sutures used for approximation should not be tied too tightly, because this may contribute to tissue strangulation.

» After the first loop is tied, it is necessary to maintain traction on one end of the strand to avoid loosening of the throw if being tied under any tension.

» Final tension on final throw should be as

PARTS OF THE ROPE

Overhand Knot   **Half Hitch**   **Half Knot**   **Square (Reef) Knot**

Sheet Bend   **Figure 8 Knot**   **Slip Knot**   **Noose**

nearly horizontal as possible.

» The surgeon should not hesitate to change stance or position in relation to the patient in order to place a knot securely and flat.

» Extra ties do not add to the strength of a properly tied knot. They only contribute to its bulk. With some synthetic materials, knot security requires the standard surgical technique of flat and square ties with additional throws if indicated by surgical circumstance and the experience of the surgeon.

Resource Mobilization, Early Warning, Relief, Food Security and Camp Management
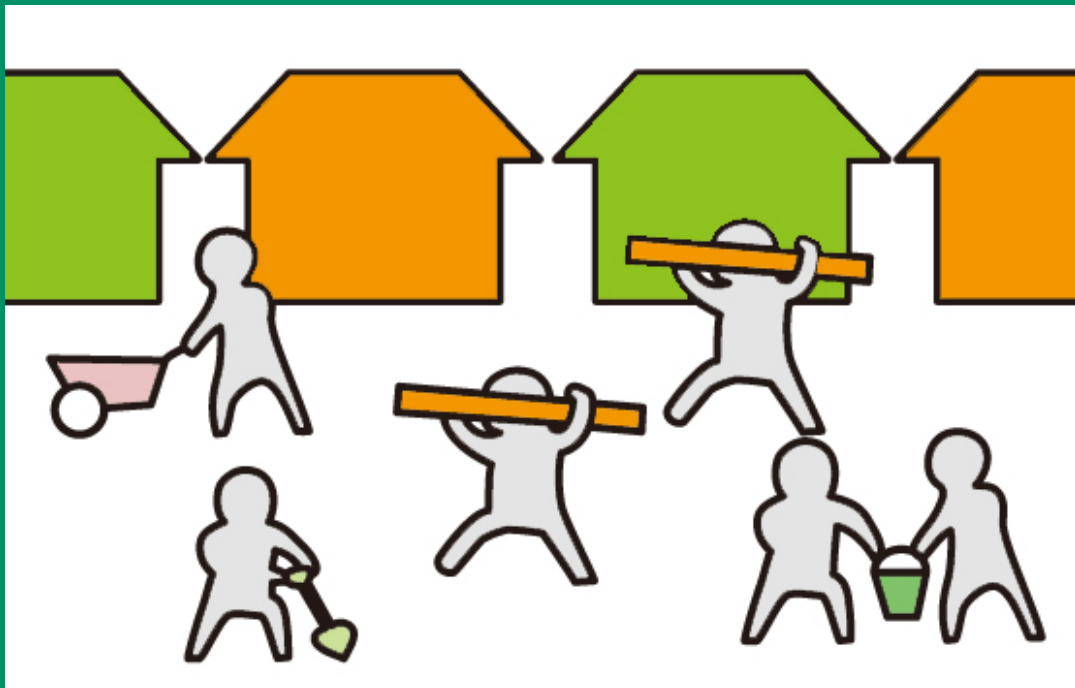
Resource Mobilization, Early Warning, Relief, Food Security and Camp Management

Objectives

To orient the introduce the different concepts of Mainstreaming Disaster Risk Reduction in Community Development through multi-approaches

Contents

» Mainstreaming DRR in community development projects
» Resource Mobilization for DRR focused initiatives
» Needs Assessment, Sample Reporting Guidelines-Damage
» Relief Distribution
» Early Warning, evacuation and camp management
» Food security in emergencies, and Conflict Management and Resolution

Methodology

» Power Point Presentations, Group discussions
» Continuous interaction with participants
» Taking feedback from the participants

Duration

Duration will be three Hours

Required materials

» Power Point Presentation Handouts
» Format and Reading Materials related to Disaster Risk Reduction in Community Development
» Video documentaries

Expected outcome

Participants will have clear understanding on different concepts of Mainstreaming Disaster Risk Reduction in Community Development through multi-approaches techniques

Extra reading material and sources

» Handouts
» USAID Tahafuz CBDRM Toolkit
» www.adpc.net
» www.ndma.org.pk

Mainstreaming DRR in community development projects

DRR is part of a wider approach of disaster management which includes pre-disaster and post-disaster activities. Undoubtedly, many components, strategies and actions of disaster risk reduction interact with and refer to the wide range of development work and cooperation. Therefore, humanitarian aid should be closely linked to and coordinated with development work. DRR in particular is a cross-cutting issue between humanitarian and development work and can be implemented as:

» Part of a relief and rehabilitation programme after a disaster has happened in a given area
» Detached from actual disasters but in areas which are projected to be disaster prone in the future, either because the area is known to be disaster-prone as a result of past events or because (scientific) projections (e.g. assessing and forecasting climate change) indicate an area to become a disaster hot spot zone
» Part of and coordinating with development projects taking place in disaster-prone areas in a way that such development programs take elements of DRR on board

DRR as part of a relief and rehabilitation program

Many relief and rehabilitation programs potentially negatively influence the extent to which people are susceptible to future disasters, for example by:

» Changing consumption and dietary patterns as a result of food aid in favour of plants or diets which are difficult to be grown/produced in the region concerned

or which increase susceptibility to the vagaries of climatic conditions
» Creating a "recipient mentality" and loss of self-confidence/self-reliance which might end up in seriously undermining peoples own initiatives to prepare themselves for future hazardous events
» Splitting communities by unfair and non-transparent patterns of selecting beneficiaries, creating a mood in a community which makes families working against each other rather than enhancing a spirit of collaboration.

Therefore, whenever a relief and rehabilitation program is in place, one should think of long-term consequences and side effects. If DRR is implemented specifically as a component of/parallel to a relief and rehabilitation program, one should pay attention to the following points:

» Those people who were affected by past disasters and who benefit from relief and rehabilitation programs might not necessarily be the ones most vulnerable to future disasters
» People suffering from a recent disaster, who perhaps lost relatives and friends, might be neither mentally nor physically in a position to think of and prepare for future disasters
» A region or community that was hit by a disaster might not provide the infrastructural nor the institutional conditions necessary to implement DRR systematically
» Offering assistance to people who suffered from a recent disaster in a way that these people are better equipped for future calamities of relief and rehabilitation support and this can jeopardize the success of a DRR approach
» The type of a disaster for which relief

and rehabilitation is in place might not coincide with the most common disasters in the area concerned. Under such conditions the financial resources might disproportionally favour less urgent DRR measures.

» Part of a DRR strategy is preparedness. This, for example, includes risk maps which allow a quick overview on risk-prone zones as well as on vulnerable households.

» There are numerous examples that such preparedness schemes enable aid organizations to quickly and efficiently deliver support to affected people immediately after a disaster

Resource Mobilization for DRR focused initiatives

» First, a risk analysis should identify the most hazard-prone areas and most vulnerable communities and households.

» Based on the result achieved during a risk assessment, appropriate measures need to be identified. Such measures should address the most dangerous hazards and provide tailor-made solutions to the most vulnerable groups.

» Support schemes can either address disaster prevention and mitigation and/or disaster preparedness. One should avoid doing too many things at the same time but prioritizing different steps together with the beneficiaries.

» Technological solutions are by no means the only and the best approach to achieve lasting effects. Social relationship, people's informal and formal organizations and self-help approaches should be prioritized in order to eventually apply technologies in a way that they truly benefit vulnerable people and communities.

» Protection, mitigation and preparedness can be pursued both by community

based support systems and by help given to individual families. There are conflicting views on this and one can find implementing and donor organizations favoring an either-or approach. Also in this respect, there is no universally applicable solution but in many cases a combination of both seems to be most appropriate to local conditions and to the needs of population.

» VDMC and UDMC can approach Tehsil and District Government in addition to Provincial and federal level institutions including NGOs and UN Agencies

Needs Assessment, Sample Reporting Guidelines-Damage

One of the most important functions of UDMCs and VDMCs is to support local government and NGOs in carrying out post disaster damage and needs assessment. DMCs member can assess by holding meeting with the villagers the damage and loss of life and property. The findings of which can be shared with relief agencies and government departments.

Objective(s)

At the completion of this Module, participants will be able to:

» Explain and understand the basic methodology of damage, loss and needs assessment.

» To conduct need assessment at village and union council level

Summary:

After a disaster an immediate assessment should be undertaken to estimate direct and indirect impacts of the disaster and the needs of survivors. The assessment should cover

the wide range of needs for the survivors and effects upon the social, economic, physical and environmental assets. The assessment of disaster needs, damage and losses will be important to organize an emergency response and determine the short and medium term reconstruction and longer term recovery needs.

Needs assessment

Needs assessment is an urgent humanitarian necessity right after the disaster happens in order to organize an effective and relevant disaster response. This is a challenging but necessary requirement in order to save the further loss of life. Local authorities in collaboration with the affected people will assess the immediate as well as long term needs of the survivors. In case of small-scale disaster a detailed needs assessment could be done at a full scale. However, in case a large disaster sample surveys could be done to assess the immediate needs of survivors for life saving. The areas to be covered in post-disaster needs assessment will include the following:

» Search and rescue;
» Evacuation;
» Protection to the most vulnerable groups; e.g. children, single women, elderly;
» Medical and Health;
» Shelter and clothing;
» Food;
» Water;
» Sanitation
» Lifeline systems (communications, power supplies, transport, etc)

It is important to quantify the needs. Everybody is not a "helpless victim" requiring every sort of assistance. The needs assessment should concentrate on dealing with the effects of the disaster and not attempt to rectify chronic needs. In quantifying needs it is appropriate to follow either international standards or define local standards; for example:

» Per person per day liters of drinking water needed
» Per animal per day liters of drinking water needed
» Number of persons per tent in case of emergency shelter
» Number of person needing warm clothing (in case of winter season)
» Number of patients per day per one doctor
» Number of patients needing to be transferred to hospitals

Definition of Damage and Loss

The natural phenomena that produce disasters - such as earthquakes, drought, cyclones and floods - generate two main types of effects:

» Destruction or damage to physical assets,
» Impact upon the socio-economic activity; e.g. loss of livelihoods, loss of production, and non- availability of services

The term damage refers to complete or partial destruction of assets and stocks as a result of the disaster. This include destruction of physical infrastructure, buildings, machinery, equipment, means of transportation and storage, furniture, damage to farmland, irrigation works, reservoirs, environmental assets and the like.

The term losses refers to loss of peoples' livelihoods, loss of production in the agricultural or industrial sectors, and the non-availability of services to communities, the losses result from the damage and destruction of assets and infrastructure; e.g. agriculture, industry, buildings, roads, transport and telecommunication networks, hospitals, schools and government offices.

The losses include decrease in production due to damage to crops, to manufacturing plants and to market facilities. They also include increased production costs due to scarcity of raw materials. The duration of losses in a sector depend on the time required for full rehabilitation and reconstruction of the affected assets as well as full economic recovery.

Need for Damage and Loss Assessment

It is important to assess the damages and losses in order to determine the cost of recovery and reconstruction, as well as the needs for international assistance. Traditionally assessments focus on the assessment of damages only, because it is relatively easy to assess the damages. The assessment of losses is difficult, because they are not as clearly visible as the damage. However, it is significant to assess the losses, because they form a large part of the disaster impact.

When to carry out Damage and Loss Assessment

The assessment of damage and losses is undertaken after a few weeks of the occurrence of a disaster. The first few days after the disaster are usually used to attend to the most urgent needs of search and rescue of victims, temporary housing, medical first, aid, food, clothing, water and sanitation and the burial of the dead. It is impossible at that time for people to even think about making estimates of damage and losses.

As a first priority the assessment should determine the safety of damaged buildings for human use. This will be followed by the estimation of reconstruction costs of buildings and other infrastructure in each sector of the economy. Assessment must determine the costs

of the introduction of hazard safer construction measures. This will include the need for strengthening or relocation of buildings and facilities to ensure their safety from future events.

Upon completion of the damage assessment, the estimation of losses must be carried out. For this purpose, the time over which losses occur should be determined on the basis of the period required for full rehabilitation, reconstruction and economic recovery of the damaged infrastructure.

Upon completion of the damage and loss assessment, an analysis should be made to estimate the total economic impact of the disaster.

Evaluation of Damage

The assessment of damage is done in each sector separately. Assessment would be done about the damage to buildings, the machinery, equipment, furniture, and the infrastructure; e.g. roads, telecommunication lines, power supply lines, water and sanitation lines etc. The damage assessment will estimate whether a certain building, equipment or infrastructure has been fully destroyed and would require reconstruction or it is partially damaged and would need only repair. The damage assessment of structures should only be done by experienced engineers and technical experts.

Assessment of Losses

In order to assess the losses two key issues should be tackled.

» Develop or access the baseline information on the performance of each sector in pre-disaster situation.

» Determine the time required for full rehabilitation and reconstruction for each affected asset or sector. This will help in estimation of the time required to achieve pre-disaster production levels from each unit, or sector.

Sample Flash Report Format

Situation	
Type of disaster	
Date and time	
Affected area	
Possibility of after effects	
Initial estimate of effects (Aprox. Numbers)	
Dead	
Injured	
Missing	
In need of shelter and for clothing	
In need of food	
In need of water	
In need of sanitation	
Damage to lifeline systems	
Possible Needs for External Assistance	
Search and Rescue	Yes/No
Evacuation	Yes/No
Protection	Yes/No
Medical and Health	Yes/No
Shelter and Clothing	Yes/No
Food	Yes/No
Water	Yes/No
Sanitation	Yes/No
Repair of lifeline systems	Yes/No

Sample Flash Report Format

Search and Rescue

Type of Disaster	
Date and Time	
Affected Area	
Number of dead (Approx.)	

Search and Rescue

Serial No	Location (district town or village)	Total number of people missing (approx)	Response status (local S&R resources deployed	Unmet needs for priority which additional S&R resources are requested (give details, eg: teams rescue boats, special expertise, heavy equipment	Priority
Total					

Evacuation

Serial No	Location (district town or village)	Total number of people to be evacuated (approx)	Response status (number of people being evacuated under local arrangements)	Unmet needs for which additional evacuation assistance is requested	Priority
Total					

Food

Serial No	Location (district town or village)	Total number of people requiring food (approx)	Response status (number of people being provided with food under local arrangements)	Unmet needs (number of people for whom external supplies of food are requested; say if cooking equipment and fuel are required)	Priority
Total					

Water

Location (district town or village)	total number of people without potable water (approx)	response status (number of people being provided with potable water under local arrangements; condition of supply system and repair status; availability of surface water)	unmet needs (number of people for whom external supplies of water are requested. Say if treatment supplies, containers or trucks required)	Priority
Total				

Sanitation

Location (district town or village)	total number of people without adequate sanitation	response status (number of people being provided with adequate sanitation under local arrangements)	unmet needs (number of people for whom external supplies for sanitation are requested; say, what arrangements are needed e.g. latrine, soap insecticides, chlorine powder, etc.)	Priority
Total				

Medical & Health

Location (district town or village)	Injured		response status (conditions of medical facilities, hospital wards, causality rooms, operating theatre, laboratories, water supply, ancillary equipment)	unmet needs (list personal supplies and equipment required from external sources)	Priority
	Serious	Walking Wounded			
Total					

Lifeline Systems

Serial Number	Location (district town or village)	Response status (Condition of System)				unmet needs (list personal supplies and equipment required from external	Priority
		Roads and Bridges	Railways	Power Supplies	Communication System		
Total							

Inventory of Resource

Serial Number	Resources	Location	Contact Address	Available?	Committed to	Notes

Sample Reporting Guidelines- Damage and Needs Assessment

Subject: Location and Type of Disaster

Summary

This section of the report can be more than one paragraph and should summarize the findings of the initial disaster assessment.

Describe the Disaster: When did it occur, where, and approximately how many people were affected? Cite the sources for your statistics.

Describe in summary form what is currently being done to handle the disaster on the local level. (Mention the presence of local and international relief agencies, military participation, etc.)

General Situation

Describe in more detail the disaster situation:

» What is the extent of the disaster?
» Where did it occur?
» How many people were affected (killed/injured/homeless)?

» Were buildings damaged?

» How badly (cite percentage if available)?

» Were public services disrupted (water/ electricity/transportation)?

» What is the general mood (panic/under control)?

Health/Nutrition (Situation)

This section should provide as much detail as possible on the health situation from as many sources as possible. Wherever possible, cite the source.

» How many people have been killed, injured?

» Where are they?

» Are there potential disease risks?

» What are they?

» Who is affected (children/adults/the elderly)?

» Describe what is being done in the health arena. What agencies (national and international) have been mobilized?

» Where?

» What are the constraints to doing a better job (for example, too many victims and not enough staff, not enough of the right kind of staff, shortage of medical supplies, problems of access)?

» There are usually no immediate nutritional problems associated with a fast onset disaster. However, in certain cases, a food shortage could occur in the medium term if the disaster has destroyed or contaminated food supplies.

» What is the potential for a food crisis?

» What is being done about it? What are the constraints? Who is handling the issue?

Shelter

» Describe damage to private and public buildings in the affected area.

» What type of housing has been damaged/ destroyed?

» How many buildings (private and public) have been damaged or destroyed?

» Has a value been placed on the damage?

» Estimate the population in need of shelter.

» Why is shelter important (weather, culture, etc.)?

» What is being done to provide shelter?

» Are people at home? At camp sites?

» Are there any local solutions?

» What is the host government planning?

» Are imported supplies required?

» How much?

» Are any agencies responding?

» What more is needed?

Water/Sanitation

Describe any water problems; for example, broken pipes, contamination, damaged pumping stations. Note color of water (clear/ muddy/yellow/red/green on surface) and smell.

» What is being done about the problem? Is the water being treated? How? Is there an education campaign? How much water is available to people per day (liters/person/ day)? Where are they getting it? Who is providing it? Is there safe and easy access to water for women?

» Describe sanitation problems. Is there overcrowding? If so, how is waste being handled? Are there separate washing/ sanitation facilities for women? Is there damage to the sewer system as a result of the disaster?

» Are there qualified people available to advise/assist? Is technical assistance needed? What was standard before the disaster?

» Has the impacted population lost its supply of cooking, cleaning, and storage utensils? What is being done?

Infrastructure/Logistics

» Describe damage to infrastructure. Is this posing problems of access to victims?
» What is being done?
» What logistics sup- port, equipment, and facilities are available and undamaged (hospitals, airstrips, ports, aircraft, vehicles, etc.)?

Coordination

» How is the relief effort being coordinated?
» Is the government in charge?
» Who is taking the lead?
» What more needs to be done?

Capability and Capacity

As best as possible, evaluate the overall response to the disaster; the capability of the NGOs; both national and international collaborative efforts between them and problems you identified; and the capacity of the host government and its policies, biases, and interests in assisting or not.

Recommendations

Outline immediate actions required. If commodities are requested, specify the item, quantity needed, and other specifications as appropriate, as well as when it is needed and how it will be received, transported, stored, and distributed.

Relief Distribution

VDMCs and UDMCs can play an important role during relief distribution The focus of the following module is to capacitate the member of DMCs for supporting govt. and non govt. agencies in relief distribution during times of disaster.

Essential household needs

Essential household NFIs refer to relief items that allow covering essential household needs. These include clothing, bedding, cooking items and utensils, stoves, fuel and light. They are the basic items that households need in- side their homes. The Sphere standards for essential household NFIs are detailed below and should be used with the guidance notes provided in the Sphere guidelines.

Clothing and bedding Sphere key indicators - clothing

» Women, girls, men and boys have at least one full set of clothing in the correct size, appropriate to the culture, season and climate. Infants and children up to two years old also have a blanket of a minimum 100 centimeters by 70 centimeters.
» People have access to a combination of blankets, bedding or sleeping mats to provide thermal comfort and to enable separate sleeping arrange- ments as required (see guidance notes 2-4).
» Individuals most-at-risk have additional clothing and bedding to meet their needs
» Culturally appropriate burial cloth is available when needed.

Cooking and eating utensils

» Each household has access to a large-sized cooking pot with handle and a pan to act as a lid; a medium-sized cooking pot with handle and lid; a basin for food preparation or serving; a kitchen knife; and two wooden serving spoons.
» Each household has access to two 10-to 20-litre water collection vessels with a lid or cap (20-litre jerry can with a screw cap or 10-litre bucket with lid), plus additional water or food storage vessels.
» Each person has access to a dished plate, a metal spoon and a mug or drinking vessel.

Stoves, fuel and lighting

» Where food is cooked on an individual household basis, each house- hold has a stove and fuel to meet essential cooking and heating needs.
» Environmentally and economically sustainable sources of fuel are identified and prioritized over fuel provided from external sources.
» Fuel is obtained in a safe and secure manner, and there are no reports of incidents of harm to people in the routine collection of fuel.
» Safe fuel storage space is available.
» Each household has access to sustainable means of providing artificial lighting, e.g., lanterns or candles.
» Each household has access to matches or a suitable alternative means of igniting fuel or candles, etc.

Essential household items must be culturally adapted and take context and security into consideration. For example, sharp knives can be used as weapons which in some conflict-affected contexts should be avoided. If the provision of stoves is deemed necessary, it is important to understand how the beneficiary population will obtain fuel for the stove (e.g., wood, charcoal). If fetching fuel requires travelling long distances in an insecure setting, providing stoves might increase their risk of being harassed or attacked. In this case, safer alternatives should be considered such as communal cooking facilities and/or the provision of fuel.

Livelihood support interventions

Although livelihood support interventions are often considered part of recovery activities, it is possible to introduce them during the emergency phase, depending on the needs and the capacity of the local community. The provision of livelihood support items in emergency settings should focus on existing or pre-disaster livelihoods and income generating activities.

The key Sphere indicators for livelihood support interventions are:

» Where people's lives are at risk through lack of food, responses prioritize meeting their immediate food needs.
» In all disaster contexts, measures are taken to support, protect and promote food security. This includes preserving productive assets or recovering those lost as the result of disaster.
» Responses that protect and support food security are based on sound analysis, in consultation with the disaster-affected community.
» Responses take account of people's coping strategies, their benefits and any associated risks and costs.
» Transition and exit strategies are developed for all food security responses to disaster, and are publicized and applied as appropriate.

» When a response supports the development of new or alternative livelihood strategies, all groups have access to appropriate support, including necessary knowledge, skills and services

Emergency Shelter:

Various organizations implement a wide range of emergency, transitional and permanent housing programmes. Shelter in disaster response also known as emergency shelter, primarily focuses on the provision of shelter assistance for survival, which includes:

» protection from climate
» security and personal safety
» enhanced resistance to ill health and disease
» support for family and community life
» basic human dignity
» maintenance of health and privacy

The relief can be for the provision of shelter NFIs such as tents, plastic sheeting/tarpaulins, ropes and tools.

» Tents-the standard family tent is 16 square metres although there may be a need for larger tents, especially in camp situations, for schools, community centers, etc. They can vary in size from 27 to 250 square meters. Tents can be given to families to erect where they wish or may be part of a tent camp.
» Plastic sheeting/tarpaulins and ropes are used to provide temporary shelter, ground cloths in tents and to cover goods kept outside. Ropes, nails and hammers are generally needed in addition to the plastic sheeting or tarpaulins.
» Tools for cleaning up, building or repairing housing can be given to individual families or can be shared by a group of families.

» Emergency shelter relief can also be provided in the form of collective shelters (for several families) and as indirect distributions to other organizations or institutions (i.e., hospitals, schools)

When planning emergency shelter activities, the following factors must be considered:

» nature and scale of disaster
» context – rural or urban
» political and security situation
» ability of community to cope
» adaptation to local needs
» incorporation of early recovery
» minimizing adverse impacts on local environment and economy
» self-sufficiency and self-management capacity of beneficiaries
» climatic conditions and local environment

Water and sanitation

Water and sanitation: it is not uncommon to distribute water and sanitation relief items such as jerry cans, buckets, hygiene kits and baby parcels. Proper dissemination and explanation on the use of these items needs to be given to beneficiary populations.

Emergency food

In emergency settings, food security programmes aim to ensure that people have access to appropriate food in a culturally adapted and sustainable way. Emergency food security interventions include:

» Food distributions: food rations are given to food insecure populations. Food can be in the form of dry rations (uncooked food) or ready-to-eat foods (canned food, high energy biscuits, cooked food parcels).
» Food-for-work: the most food insecure

are given work opportunities, usually on construction/rehabilitation of infrastructures. The work done is paid with food.

Targeted feeding programmes: these refer to the provision of already prepared meals to people meeting a set of characteristics (e.g., children in schools, sick people in hospitals). They also include the provision of special foods for the nutritional rehabilitation of malnourished.

Methods for providing relief

When designing a relief intervention and drafting the specifics on relief activities, it is necessary to determine which method(s) will be used to provide relief.

Supply distribution: refers to the distribution of relief supplies (i.e., NFIs) to beneficiaries. Supplies can be distributed directly, indirectly or donated to other institutions.

Voucher system: refers to the distribution of vouchers which entitle beneficiaries to exchange them for supplied goods from permanently functioning distribution sites (i.e., warehouse or private commercial shop). The shop owner is responsible for procurement.

Cash transfer: beneficiaries receive cash instead of supplies. Beneficiaries have the freedom to purchase the type of items they need.

Implementation of relief activities:

The implementation of relief activities is conducted once the assessment and the planning processes are completed. This section reviews targeting and identification processes and possible methods/tools to implement

them (tokens, beneficiary lists, ration cards, vouchers, distribution lists).

Beneficiary targeting

Depending on the nature and magnitude of the disaster and the capacity to respond, the intervention can aim to cover all the population (blanket distribution) or can be focused on the most vulnerable groups within the affected population (targeted distribution). This is determined and planned in the planning phase

In rapid onset emergencies, relief is often provided to all of the population in the affected location, given the lack of time to conduct proper targeting. Women, disables and children required special attention while targeting the beneficiaries

Examples of targeting procedures:
»   Volunteers can go house-to-house evaluating damages on an individual basis.
»   Targeting can focus on prioritizing communities according to damage levels and providing assistance to all inhabitants.
»   A combination of initially prioritizing hardest hit communities and than moving house to house.

Regardless of the type of targeting system used it is important to maintain clear criteria that identify individuals and groups in a manner that is impartial and focuses on vulnerability.

Beneficiary identification

Whether a general or targeted approach is used, beneficiary identification is ideally conducted prior or during the provision of relief. However, experience shows that this is very difficult in rapid onset emergencies where relief items need to reach beneficiaries in the

quickest way possible. As such, in the initial phase of a rapid onset disaster, the number of beneficiaries (individuals and/or households) in beneficiary locations is collected. This information is sufficient to proceed with the distribution of relief supplies. In slow onset disasters, or if it is planned to conduct a second round of supply distributions after a rapid onset disaster, a proper identification of beneficiaries is conducted. Beneficiary identification serves two purposes. Firstly, it allows identifying the individuals that will benefit from relief activities (for organization and monitoring purposes). Secondly, it ensures accountability and transparency in the use of resources. The identification process starts with obtaining and recording personal in- formation on the beneficiaries. The type of information required from beneficiaries can vary depending on the context, but generally includes the following information:

Information to obtain for beneficiary identification

» head of household's given name and surname
» number of family members
» address or location of permanent and/or temporary residence (amount of detail to be determined according to context rural/urban/camp)

In situations where multiple distributions and/or longer-term programmes are planned it may be advisable to collect supplemental information for family members such as:

» name
» gender
» age
» national identification number (or similar form of identification)

Other relevant information (e.g., "pregnant" or "lactating," "special needs," etc.) may be necessary if specific vulnerable groups will be targeted for other relief assistance.

Identification of beneficiaries can be done house-to-house or in a public location. Informing beneficiary populations that team will visit their home to register them, or asking them to gather in a public location allows most/all beneficiaries to be present during the identification process. However, it also allows non-beneficiaries to scheme ways to be included in identification lists. Measures should be taken, in agreement with the local authorities, to minimize the inclusion of non-beneficiaries. Women, disables and children required special attention.

Roles and responsibilities during identification

Care must be taken when deciding not only what information will be required for beneficiary identification, but also who will collect/record the information, how it will be recorded, who will settle disputes, those responsible for registering must be in complete agreement on the process prior to beginning.

Avoid identification by beneficiary representatives

It is not uncommon in some cultures for a single person to represent a larger population during distributions. In this capacity, this person may also attempt to register all persons in his/her neighborhood or community. To the extent possible, this possibility should be avoided. Care must be taken when trying to discourage this approach. Pre-distribution checks of a small percentage of the households will help to ensure the accuracy of lists.

Possible difficulties during the identification process

It is not advisable to resolve these on a case-by-case basis, as it could invite accusations of favoritism or discrimination.

» **Inability to produce proper identification.** A standard solution should be thought of in advance and applied to all cases, for example to agree that a (pre-determined) number of witnesses (not related to the person wishing to register) can verify the registrant's information.

» **Attempts to register persons in absentia.** People might be absent during the identification process, for reasons including travel, disease, work, caretaking, no means or incapable of travelling. Frequently, family members or friends attempt to register them. A decision should be reached in advance and a process established for handling absentee identification. A possible solution is to require that all persons in the family wishing to register be present at the same time (as opposed to allowing a head of household to register on behalf of all).

» **Duplicate/multiple registrations.** People may attempt to register in more than one location, or members of a household might register separately if they believe they may receive more assistance. Define what constitutes a household and set-up the necessary verification procedures to minimize double registrations; for example using software to crosscheck identification lists or recording identity card numbers

» **Inaccurate transliterations/spellings of names/surnames.** Be sure it is clear how names are recorded, since the surname is recorded first in some cultures. One way to avoid confusion is to capitalize surnames and always list the surname first. If identification (ID) cards are available, ensure that the spelling of names during identification matches that of ID cards. If ID cards are not available, ensure that spelling in identification lists matches that on ration cards/vouchers. Discrepancies in spelling between ration cards and beneficiary lists will slow down the distribution process, hence the interest to minimize this problem from the beginning.

Identification Documents

Depending on how relief is provided (direct/indirect supply distribution, do- nation to another institution, voucher system, cash transfer), the use of one or more of the following identification documents may be applicable:

» Beneficiary list in which all registered beneficiaries of a distribution point are listed (also known as beneficiary identification list).

» Ration card/voucher for the individual family which is stamped or marked every distribution round.

» Distribution list or duplicate ration card – receipt of items is con- firmed by the beneficiary (or representative) either by signature or by fingerprint.

Beneficiary identification lists

In order to crosscheck lists for errors (such as double registrations), it is useful to enter identification lists into a computer for the creation of a database, especially when relief is planned to be given over a series of rounds. However, this may not be possible in extreme emergencies when time is scarce and identification, ration card distribution and the provision of relief is done simultaneously. Moreover, in one-shot distributions, it might be decided impracticable to enter lists into a database.

Ration cards

For direct distributions to individual households it is almost always prefer- able to use a ration card or ticket, even if only one distribution will take place. However, in certain situations (i.e., indirect distributions, donations to institutions, airdrops, etc.) ration cards are not applicable. The ration card facilitates considerably the organization of the distribution and allows the grouping and calling forward of beneficiaries by the ration card number rather than by individual names. Depending on the circumstances, ration cards may be used to record items distributed, quantities and dates. While there is no uniform format for a ration card, it should contain essential information that corresponds to the beneficiary list.

Information to include in ration cards

» name of the head of household
» his/her identification or passport number
» number of persons in the family
» location (or place where the family is authorized to receive goods)
» date of issue

Some ration cards, if needed, also record information about children under a certain age, the number of pregnant/lactating women and/ or elderly people.

How to prepare and manage ration cards

Ration cards have a high value and the proper care and management of cards is very important.
» **Numbering:** ration cards should always be numbered and the numbers should correspond to that on the beneficiary list.

Card numbers should never be repeated during the entire operation.
» **"Punching" during distributions:** ration cards should be marked as "served" during each distribution using the principle of punching (by a puncher or a simple nail). The figure corresponding to the number of family members can also be punched.
» **Material of the card:** ration cards should preferably be produced on durable material, such as lamination.
» **Validity:** the validity of the card should be limited to a certain number of distributions (weeks, months, etc.) after which it should be replaced.
» **Inform local authorities:** local authorities should be informed before issuing any cards that they are for the sole purpose of identification at a distribution site and do not have any legal authority (unless otherwise specified).
» **Record keeping of series:** keep records of the date a series of

Distribution lists

Distribution lists (or duplicate ration card) are compiled when relief sup- plies/vouchers/cash transfers reach the beneficiaries. Beneficiaries sign or thumb print upon reception of relief assistance. Distribution lists are the record of distribution. They are auditable and must be linked back with distribution plans for number comparisons. Distribution lists ensure transparency and accountability of the work done.

Information to include in distribution lists

» point of physical distribution
» beneficiaries' names
» signature or thumb print upon reception of relief assistance

»   commodity types and quantities distributed I distribution date and locatio

Types of distributions

There are three main types of distributions: (1) direct distribution, which is the default and preferred method for providing relief supplies; (2) indirect distribution; and (3) donations to institutions, which are only done when direct distribution is not possible.

Direct distribution

Relief items are given over directly to the beneficiary, usually to the head of the family. This system allows for efficient control of the flow of relief supplies and should therefore be implemented whenever possible. However, it is time- consuming and requires complete distribution infrastructure and consider- able numbers of trained staff and volunteers.

Indirect distribution

The relief items are handed over to representatives of the community, village, etc., who are then entrusted with the final distribution to individual members of their community or group. This system implies more beneficiary involvement in the distribution process and permits quicker distribution of more supplies to more beneficiaries. Wherever this system is used, a deviation of relief supplies in favor of some community group or individuals may occur. While local customs and traditions in sharing supplies among community members is to be respected, additional control and monitoring mechanisms, such as household spot checks following a distribution, should be introduced to ensure that individual beneficiaries do receive their rations.

Donations to institutions

Goods are given to institutions such as hospitals and orphanages, which will use the supplies to support their normal activities. Although this system is logistically the simplest of the three, it requires greater control (such as a pre-distribution agreement with institutions and significant monitoring) to ensure that supplies reach end beneficiaries.

Involving beneficiaries during distributions

Efficient distribution is only possible with the active participation and support of the beneficiaries themselves, including their traditional structures (leaders, chiefs, committees, etc.). The beneficiary communities can provide workers, distributors, warehouse watchmen and security personnel. Their services should normally be on a voluntary unpaid basis, as a community contribution to the assistance programme. As a general rule, storekeepers and distribution point managers should preferably be recruited from non-beneficiaries.

Identifying distribution sites

The location of a distribution site will usually be in a town or a central village, traditionally used as a trade, transport or services centre. Distribution sites may be in camps, with one or more sites per camp depending on the number of beneficiaries.

Consider the following factors when identifying distribution points:
»   nature of the disaster
»   type of assistance to be provided (weight, volume)
»   planned time-span of the operation
»   total number of beneficiaries

- » location of the beneficiaries
- » weather conditions and time of the year
- » logistical considerations (transportation, warehousing, site access)
- » terrain and road conditions
- » security for beneficiaries and Red Cross Red Crescent teams
- » convenience for beneficiaries (unnecessary movements of people should be avoided)
- » means beneficiaries will use to reach the distribution point
- » time needed for beneficiaries to reach the distribution point

Security during relief interventions

- » During relief interventions, whether supply distributions or cash transfers, you may encounter situations where maintaining order during gatherings of large crowds can be difficult. In order for the intervention to run smoothly without incidents, there are a number of elements to consider.
- » Proper planning and communication – make sure the beneficiary population understands the distribution plan and timing, and are aware of what they will be receiving. Clarity and transparency are very important to avoid false expectations.
- » Avoid disruption in the distribution by ensuring you have enough volunteers to offload trucks and ensuring you have a buffer stock in case subsequent truckloads arrive late.
- » Involve local leaders and representatives during the entire process, they will help you clarify misunderstandings and disputes.
- » Proper site selection – sites should be spacious and selected taking security into account. Think of the beneficiaries and their needs when selecting a site.
- » Emergency reaction – community

leaders, local National Society staff and delegates should be the first level of crowd control. Using security personnel is not encouraged but may be necessary in special circumstances. You can be made responsible for their actions. Make sure instructions to them are clear. In case of total breakdown, use the previously identified emergency exit with a vehicle and driver standing ready and knowing where to go.

Early Warning, evacuation and camp management

Early warning is about provision of information to individuals, households, groups or a community about i) the existence of a danger or hazard, and ii) what can be done to prevent, avoid or minimize the danger.

Evacuation and early warning

- » 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

Why do We Give Warning?

There are three purposes in giving an early warning. They are i) to inform the community about hazards: Who is at risk? What is the risk? ii) to advise on means of protection and

preparedness; e.g. preventive evacuation, sandbagging to reinforce the flood dike, or fire suppression etc, iii) to instruct them who will do what to deal with the impending hazard.

Different ways of giving warning and/or receiving warning include:
» Village/community meetings by VDMCs
» Notices/posters/billboards
» Verbal or pictorial messages
» Radio
» Cable TV
» Announcement
» Films
» Television
» Newspaper
» Sirens
» Other indigenous forms and channels

Things to Consider by VDMCs When Giving Warning

VDMC/UDMCs should considered following things while giving warning at local level:
» Inform the people of the different phases of the warning and their meaning
» Inform or update the evacuees/community of the forecast and the warning of agencies or community monitoring team using symbols or sounds that everybody can understand.

The symbols can be painted or mounted in plywood or boards that can be read or seen even from afar. 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.

"Information Boards" can be placed in important locations like:

» mosque, schools or government buildings
» mountains or high places

» stores and transportation facilities
» other places where people frequently pass or gather

Organize a committee on information

The task of this committee will be to monitor and prepare all the materials for the dissemination of early warning information and 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.

Identify roles and responsibilities

For every role, a committee or an official must be responsible in order to undertake the tasks. Two methods of describing these roles and responsibilities can be used by the community committee,

» List organizations involved and describe their roles for each hazard
» List hazards and identify the lead/support organizations for each hazard.

The warning should:
» Be area specific and target group specific
» Be hazard specific
» Be based on the Community 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

Community should know the meanings of actions to be taken (What "READY, GET SET AND GO" mean). Or recommended action should be specific like: pack-up things, proceed to pick-up point or proceed to evacuation site.

Warning is given in simple form and in the local dialect

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Early Warning by Local Authorities

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» Be hazard specific
» Be based on the Community Hazard, Capacity and Vulnerability Assessment
» Give advice 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

Flood Warning	Symbol or Sound
Alert Level # 1 or Flood Signal # 1	# 1 sign or square or whistle / ready
Alert Level # 2 or Flood Signal # 2	# 2 sign or triangle or drums / get set
Alert Level # 3 or Flood Signal # 3	# 3 sign or rectangle or siren / go

Evacuation

What is an Evacuation?

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

When is the Time to Evacuate?

» 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

Phases of Evacuation

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

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.)

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

Camp Management

Setting up emergency camps /shelter and or evacuation camp is not encouraged during times of emergencies and   disasters, This is because, it often results in overcrowding, inadequate food supply, poor access to safe and adequate water and generally deteriorating environmental sanitation. All of these expose the displaced population to communicable diseases, and the vulnerable groups, i.e. the children , women and the elderly, to serious malnutrition. However, there are situations when the setting up of evacuation camp is unavoidable.

Camp setting up at local level is a major task, Camp management Evacuation centers (EC) are governed by the type of emergency involved. Short duration EC are usually set up during typhoons and flooding. The longer ones are often established when permanent damage to houses, etc occurs, such as in earthquakes, flashfloods, tsunami, volcanic eruptions (as what was experienced during the earthquake 2005, and flood 2010) In such long duration EC, the most common outcome is the permanent resettlement of the displaced community.

There are several considerations which one should keep in mind by VDMC/UDMC when planning for an evacuation camp. And these are as follows:

»   Safety of the place/building. Be sure that it is not threatened by the same hazard that brought about the emergency.
»   Arrangement for site selection.
»   If a building is to be used as an EC, be sure it is suitable for the purpose.   A movie house is definitely not a good choice. In the Philippines the most common buildings used are ; schools, churches, gyms.
»   If a makeshift shelter is to be set up, site selection will include;
    ›   Accessibility (to major transportation and communication)
    ›   Topography and drainage (if proper drainage or sewerage system is not in place, ground must be above flood level and preferably in slightly sloping terrain to allow easy drainage of waste water),
    ›   Proximity to water source
    ›   Free of environmental hazards (i.e. malaria, filaria, schistosoma etc.)
    ›   Layout of the makeshift houses (should allow for spaces in between houses , access road and spaces for children to play.)
»   In both types of temporary shelter the following should be in place :
»   Appropriate shelter , taking into consideration socio- cultural differences among the evacuees
»   Toilet facilities/ latrines with provision for person with disabilities
»   Hand washing facilities (individuals should be taught/
»   informed to bring their own soap and water)
»   Areas for bathing, washing clothes and cooking

» Area for food storage
» Solid Waste disposal system

Space for the evacuation personnel to set up an office

» Selection of site:
» Schools/other buildings as EC

The following are pointers /considerations in the selection of school/building:
› Must be accessible to major transportation
› The schools must have grounds /space, which is big enough for temporary tents which can be used by the evacuees during the day when classes are being conducted in the classrooms.
› The site must not be prone to flooding
› For the water supply and latrine requirement see section on environmental health
› Must have space for community kitchen
› Must have space for small children to play without disturbing the on-going classes.

» For makeshift camps:
› The following are pointers / considerations in the selection of site for the makeshift camp:
› Must be accessible: easy access to roads, supplies of food, shelter materials, cooking fuel and communication
› Adequate vegetation for shade; soil condition may permit future cultivation

» Presence of electricity
» With source of water
» Good drainage (avoid marshy ground; should be above flood level)

» Secured, less possibility of conflict/ hostilities with the non-affected population in the vicinity
» No environmental health hazards , i.e. extremes in temperature, strong winds, exposure to habitat of vectors of diseases (ex. Malaria, schistosoma and filaria)

Health:

Combination of services: The team should work with the agency responsible for medical services or a local clinic to give children information and treatment while at school. It is vital to liaise vaccination activities (campaigns and vaccination days) with the education provider and the teachers' associations (could be combined). This can help prevent and reduce illness, which can lead to dropout. Priority for treatment: If combination of services is not possible, the team should see whether teachers and students can be given priority at the clinic to limit (as much as possible) their absence from attending classes/ teaching. Health education: Health education programmes should be provided at schools. In this way, children could easily be targeted for health information.

Food distribution:

Alternative distribution of rations: It is important to establish a system for teachers to receive their food rations after school hours, or in ways that will not interfere with their responsibilities at school. School feeding: School feeding, i.e. serving meals during school hours, should be considered, particularly if children drop out of school because of lack of food.

Water and sanitation:

Water and latrine facilities: These facilities

Steps in Camp Management

Step 1:	Negotiations prior to Camp Setup	Step 10:	Water and Sanitation
Step 2:	Camp Setup and Care & Maintenance of Camps	Step 11:	Education
		Step 12:	Enhancing Livelihood Strategies for Self-Reliance
Step 3:	Community Participation and Camp Committees	Step 13:	Youths and Recreation
Step 4:	Registrations and Data Collection	Step 14:	Health Care and Health Education
Step 5:	Protection		
Step 6:	Child Protection	Step 15:	Psychosocial Care
Step 7:	Prevention of Gender-Based Violence	Step 16:	Peace-building and Reconciliation
		Step 17:	Responsibilities of Camp Management Team
Step 8:	Camp Security		
Step 9:	Distribution of Food and Non-Food Items	Step 18:	Camp Closure

should always be constructed by the school, even for emergency school shelters. To promote better sanitation, semi-permanent schools should receive the best latrines. Especially with a rural population, «promoting» latrines at the camp school can demonstrate the use and importance of latrines.

Hygiene promotion: It is necessary to help establish hygiene education programmes at the schools that incorporate good sanitation practices – including hand-washing. Water must be near toilets. To target children in hygiene promotion is often very difficult but crucial. The use of school premises and playgrounds for this purpose is a very effective way to reach this group.

Religious institutions:

Adjustment of school hours: The camp management team is recommended to work with religious institution principals to have them adjust their school hours so that they are not in competition with government or camp schools. It may take a great deal of sensitization, but the camp manager is seen as an influential person and can assist in helping both parents and students see why it is important to have a religious as well as standardized government curriculum available

to all students. Needs of religious communities: Attention should be given to needs of various religious communities in the camp.

Food Security in emergencies

Food Security

A person, household or community, region or nation is food secure when all members at all times have physical and economic access to buy, produce, obtain or consume sufficient, safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life. The definition of food security is based on three important pillars:

» food availability;
» food access; and
» food utilization.

Food availability in a country, region or local area means that food is physically present because it has been grown, manufactured, imported and/or transported there. For example: food is available because it can be found on markets, because it is produced on local farms, land or home gardens, or because it arrives as part of food aid, etc. This is food that is visible and in the area.

Food access is the way different people can obtain the available food. Normally we access food through a combination of home production, stocks, purchase, barter, gifts, borrowing or food aid. Food access is ensured when communities and households and all individuals within them have adequate resources, such as money, to obtain appropriate foods for a nutritious diet. Access depends on income available to the household, on the distribution of income within the household and on the price of food. It also depends on market, social and institutional entitlement/rights to which individuals have access. Food access can be negatively influenced by physical insecurity such as conflict, loss of coping options, such as border closure preventing seasonal job migration, or the collapse of safety net institutions that once protected people with low incomes.

Food utilization is the way people use the food and is dependent on the quality of the food, its preparation and storage method, nutritional knowledge, as well as on the health status of the individual consuming the food. Certain diseases do not allow for the maximum absorption of nutrients and growth requires increased intake of certain nutrients. Food utilization is often reduced by endemic disease, poor sanitation, lack of appropriate nutrition knowledge or culturally prescribed taboos that affect access to nutritious food by certain groups or family members according to age or gender.

Any of the above-mentioned factors can cause food insecurity

» A coordinated approach: Responding to the nutritional needs of an emergency affected population requires a commitment to a coordinated approach among all the key actors: United Nations agencies, bilateral

donors, the Government, NGOs, and the community, women in particular.
» Context-specific assistance: Food-assistance programmes that meet the needs of affected populations in emergencies must be based on a clear understanding of the situation. An analysis of the specific context and its nutritional problems and an understanding of the causes and potential risks of malnutrition are required.
» A general food basket based on providing 2,100 kcal per person per day: Individual energy requirements are estimated for different population groups according to age, gender, weight and physical activity level. The mean per capita energy requirement for a population has been calculated by taking the weighted-average requirements for each age-sex group (see Annex 1). The mean per capita energy requirement is not specific to any age or sex group and should therefore not be considered as the requirement of a particular individual. The estimate of 2,100 kcal/person/day was also designed to include the needs of pregnant and lactating women within the population.
» Timely distribution of an adequate, basic ration: At the onset of an emergency, ensuring an adequate basic ration for the needy population is crucial. The quick provision of an adequate ration not only saves lives, but also reduces the likelihood of later having to introduce more costly and cumbersome interventions such as selective feeding programmes
» A standard food ration: In a general food distribution, a standard food ration is provided to every beneficiary without distinction. Population sub-groups with obvious additional nutritional requirements (e.g. malnourished children) may require an additional ration over and

above the standard basic ration.

» Community participation: To meet the food and nutritional needs of the population more effectively, the planning of the food ration should be carried out with the participation of the affected community. Women in particular should be consulted during the process of determining the appropriate food and nutritional needs of the affected population. monitoring, adjusting and targeting: Monitoring mechanisms must be in place

» to assess the adequacy of the established ration, to adjust the ration according to changing circumstances and to target sub-populations at relatively higher risk on the basis of food need and/or vulnerability to food insecurity. A strategy for monitoring the adequacy of a ration requires the use of a number of different quantitative and qualitative tools (e.g. joint food assessment missions, vulnerability analysis and mapping [VAM], household food economy assessments). An understanding of the various mechanisms used by the population to access food, including an analysis of the positive and potentially negative implications of any coping mechanisms, is essential. Understanding such mechanisms improves food and nutritional estimates and may contribute to helping populations achieve self-reliance.

» Pregnant and lactating women During pregnancy and lactation, women's nutritional needs for energy, protein and micronutrients significantly increase. Pregnant women require an additional 285 kcals/day, and lactating women require an additional 500 kcals/day. Both pregnant and lactating women have increased needs for micronutrients. Adequate intake of iron, folate, vitamin A and iodine are particularly important for the health of both women and their infants.

Chapter 15

Organizational Management and Development

Organizational Management and Development

Objectives

To introduce the different concepts of organizational management and development and equipped with the leadership, development, management and negotiation skills, participants also able to train communities in financial management in transparent manner.

Contents

» Leadership and Development at UDMC/VDMC Level
» Conflict Management and Resolution
» Financial Management, Procurement and Transparency
» Organizational and Financial Record Keeping
» Negotiation Skills
» Capacity building of UDMC/VDMC at Tahafuz Project

Methodology

» Power Point Presentations
» Group discussions
» Continuous interaction with participants
» Taking feedback from the participants
» Group work on different formats

Duration

Duration will be three Hours

Required materials

» Power Point Presentation Handouts
» Format and Reading financial management and VDMC/UDMC Record keeping

Expected outcome

Participants will have clear understanding on different concepts of leadership and management at community level, enable them to train community members in financial management, conflict management and record keeping.

Extra reading material and sources

» Handouts
» USAID Tahafuz CBDRM Toolkit
» www.adpc.net
» www.ndma.org.pk

Organizational Management and Development

Leadership at VDMC and UDMC

The progress of a community or an institution like VDMC or UDMC largely depends on appropriate and active leadership. General people in our society largely depend on their leaders. At any level in a society the influence of appropriate leadership is very significant for development. This session help Tahafuz staff to understand different types of leadership and their characters , importance of local leadership in DRR/DRM, and also able to describe the desired traits and role of leadership in DRR/DRM, Leadership is a trait that enables one to influence others opinion to do something according to his/her choice. There may be different forms of leadership in the society.

Different style of leadership depending on the behavior of leaders

Styles of leadership may vary. Leadership behavior is generally classified into three types.
» Autocratic Leadership
» Participatory leadership
» Uncensored leadership

Characteristics of autocratic leadership:

» All decisions and strategies are taken by the leader
» Leader directs strategies and steps. Uncertainty remains for future course of actions.
» Leader instructs specific persons to do specific things
» Leader prefers to flourish individualism in all aspects. Praise own initiatives and criticizes the efforts of team members.

Keep aside from active participation from team activities.

Characteristics of partnership leadership

» All decisions and strategies are taken through group discussion, decisions and cooperation.
» Methods and steps are decided through discussion. The leader explains the goal and general strategies.
» The team members can distribute the works among them through mutual discussion.
» The leader takes into account the realities and keeps confidence of the team members through praising their initiatives.

Characteristics of uncensored leadership

» The team members are given unlimited freedom to decide; the leader does not interrupt.
» The leader ensures supply of materials and equipment
» The leader keeps aloof from participation
» Only when there is crisis the leader attempts to control the team members

Comparison

Although in autocratic leadership he scope of work is faster, in terms of quality of work the partnership leadership is better. In autocratic leadership everything is damaged except the leader. But in partnership leadership very little quality is affected due to change in leadership. In uncensored leadership both speed and quality of work is worst.

Foundation of leadership

In community development the foundation of leadership is participation or democratic

practice. Dictatorship of undemocratic leadership cannot lead to sustainable development. In community development, development is facilitated by the span of participatory process in leadership. Since in our society the people are not able to participate effectively, the leaders should create scope to enhance their capacity to participate.

Importance of local leadership in DRR/M

The local leaders play a vital role to ensure peoples' participation in development activities. The poor and illiterate population largely depends on the opinion of the local leaders. A development worker cannot go to every individual personally, particularly where the resource and time is limited. But it is essential to involve every single individual in the process of development. This communication can be effectively done through a good leader. In DRR/M all people – children, youth, aged, rich-poor – should be covered. As such to implement this programme the role of local leaders is very significant.

Desired traits of a leader in DRR/M program

To gain confidence of the people a leader in DRR/M should acquire the following traits:

» Knowledge of the subject
» Ability to work in group
» Honest and attractive leadership
» Good behavior with all
» Analytical skill
» Inter-personal communication skill
» Patience
» Interest and willingness to work for the poor
» Interested to work for society
» Attitude to help

Difference between Manager and Leader

Manager	Leader
Mangers have employees..	Leaders win followers
Managers react to change..	Leaders create change
Managers have good ideas	Leaders implement them.
Managers communicate	Leaders persuade.
Managers direct groups	Leaders create teams.
Managers try to be heroes	Leaders make heroes of everyone around them.
Managers take credit.	Leaders take responsibility
Managers are focused	Leaders create shared focus.
Managers exercise power over people.	Leaders develop power with people
Solve problems	Create challenges

The education, economic condition, status in the society, age, etc. largely influence the above traits. The above traits are applicable for any levels. These can be acquired through initiatives and efforts. Willingness and challenging attitude is very much required. Otherwise these traits remain unexplored and these do not come for any use in the family or society. It results problems in the family and society.

Role of a leader in DRR/DRM

The local leaders have enormous responsibility in DRR/M programme. Using his/her influence he/she can involve the people properly. He can discharge the following responsibilities:

» Knowing the need for DRR/DRM
» Help peoples from all walks of life
» Create social awareness
» Mobilize materials, resource and facility
» Communicate with development partners
» Remain respectful to neglected population
» Maintain discipline in the society

» Maintain good relations at all levels
» Make participation of people at all level possible
» Helping poor population
» Informing the population about initiatives
» Distributing responsibility among the population and ensuring performance of them.

Conflict Management and Resolution

Conflict management

Differences are inevitable in a local group having members with different experiences, attitudes and expectations. However, some conflicts can support organizational goals. Indeed, too little conflict may lead to apathy, lack of creativity, indecision and missed-out deadlines. Clashes of ideas about tasks also help in choosing better tasks and projects. These are 'functional conflicts'. Functional conflicts can emerge from leaving a selected incidence of conflict to persist, which can be overcome by 'programming' a conflict in the process decision-making by the group by assigning someone the role of a critic. This also helps to avoid 'group thinking' where group members publicly agree with a course of action, while privately having serious reservations about it. The most difficult conflicts are those arising out of value differences. The most important thing is to understand the real cause of the differences. Yet every resolution of a conflict can also feed a new conflict in a group. It is, therefore, useful to see conflicts as a series of expressions of existing differences within a group, having some links to each other. How effectively a group deals with conflict management largely affects the efficiency level of its functioning.

Common ways of dealing with conflicts within a group

» Avoiding - withdraw from the conflict situation, leaving it to chance.
» Harmonizing - generally cover up the differences and claim that things are fine.
» Bargaining - negotiate to arrive at a compromise, bargaining for gains by both parties
» Forcing - push a party to accept the decision made by a leader or majority.
» Problem solving - confront differences and resolve them on a collaborative basis.

Conflict-management styles

Collaborating - Conflicting parties jointly identify the problem, weigh and choose a solution.

Accommodating - Playing down differences while emphasizing commonalties.

Competing - Shows high concern for self-interest and less concern for the other's interest. Encourages 'I win, you lose' tactics.

Avoiding - Either passive withdrawal from the problem or active suppression of the issue.

Compromising - A give-and-take approach involving moderate concern for both self and others. Each party has to give up something of value. It may include external or third party intervention.

Managing conflict

» Allow time for cooling down.
» Analyse the situation.
» State the problem to the other person.
» Leave the person for some time.
» Use a win-win approach.

Factors affecting conflict

» Personality traits affect how people handle conflict.
» Threats from one party in a disagreement tend to produce more threats from the other.
» Conflict decreases as goal difficulty decreases and goal clarity increases.
» Men and women tend to handle conflict similarly. There is no 'gender effect'.

Role of chairperson in the group conflict management

Problem identification

Establish a climate for joint problem solving
» Show genuine concern and interest. Respond empathetically, even if you disagree with the complaint
» Respond appropriately to the lead person's emotions.

Seek additional information about the problem
» Ask questions that channel the lead person's statement from general to specific and from evaluative to descriptive.

Agree with some aspects of the complaint(s)
» Signal your willingness to consider making changes by agreeing with facts, perceptions, feelings or principles.

Solution Ask for recommendations - to avoid debating the merits of a single suggestion, brainstorm and seek multiple alternatives.

Role of a mediator for managing conflict

Problem identification Acknowledge that a conflict exists
» Select the most appropriate setting (one-on-one conference vs. group meeting) for coaching and fact-finding.
» Propose a problem-solving approach for resolving the dispute.

Maintain a neutral posture
» Assume role of a facilitator and not judge. Do not belittle the problem or criticize the disputants for their inability to resolve their differences.
» Be impartial towards the disputants and the issues (as long as policy has not been violated).
» If correction is necessary, do it in private.

Manage the discussion to ensure fairness
» Focus discussion on the conflict's impact on performance and the detrimental effect of a continued conflict.
» Keep the discussion issue-oriented, not personality-oriented.
» Do not allow one party to dominate the discussion. Ask directed questions to maintain balance.

Solution; Explore options by focusing on interests behind stated positions
» Explore the 'why' behind the disputants' arguments/claims.
» Help disputants see what is common among their goals, values and principles.
» Use this to generate multiple alternatives.
» Maintain a non-judgmental manner.

Participatory decision making through consensus would reduced conflicts among the communities, VDMC/UDMCs will ensure this to achieve their organizational objectives.

Financial Management, procurement and transparency

Management of finances and procurement at community level while ensuring transparency of all the activities carried out at VDMC level is very important and play key role in organizational development, The VDMC is mainly concerned with simple cash management. This involves three basic activities:

» Budgeting for planning and controlling money received (income) and money spent (expenditure).
» Accounting for accurately recording, income and expenditure.
» Banking for keeping cash safe, preferably in a secure bank account.

Good financial management can only be achieved if each one of these activities is operating well and is fully understood by the management committee, especially the Chairman, Secretary and Treasurer.

Budgeting

This serves two separate functions:
» Planning income and expenditure - the annual budget will show what income the VDMC expects and how it is proposing to use it.
» Controlling income and expenditure - during the financial year, actual income and expenditure need to be compared with the budget on a regular basis so that if;
  › Actual income exceeds estimated income, then the budget must be adjusted so that the increased resources available do not remain idle
  › Actual income is less than estimated income, then the budget must be

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Financial Management at VDMC/UDMC

» General Ledger
» Budget preparation
» Bank Accounts
» Cheque Book/post office passbook
» Signatories
» Agreements /MOUs
» Purchasing – Purchase Committee
» Payments
» Receipts
» Master roll
» Acknowledgement
» Record /Book Keeping
» Budget Monitoring
» Bank statements
» Reconciliation with bank
» Audit

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adjusted so that expenditure remains within the budget by cutting costs for some projects or suspending some activities
  › Actual expenses exceed estimated expenses, then ways of reducing costs can be found
  › Actual expenses are less than planned expenses, then the budget needs to be re-adjusted to either increase the rate of expenditure or re-allocate the unspent money

Accounting

For the WWC to manage its money effectively, simple but accurate accounting is needed. This is achieved by using the following documents:
» The cash record-book - details of every transaction must be entered into the cash record-book by the VDMC treasurer
» The receipt book - every time the VDMC receives money, either as cash or a cheque, the treasurer must record this in the receipt book and issue a receipt to the payee

» The cheque book - the VDMC uses the cheque book to make payments and to get cash from the bank account
» The cheque authorization form - the VDMC uses the cheque authorization form to ensure that all the cheques that are issued are properly authorized.
» The claim form - the VDMC uses the claim form to reimburse money spent by members in the course of their duties
» The payment voucher – the VDMC uses the payment voucher to support all payments made, whether by cash or cheque.
» The pay sheet - the VDMC uses the pay sheet to record staff wages, whether daily, weekly or monthly.
» The bank reconciliation statement - the VDMC uses the bank reconciliation statement to reconcile the balance from the cash record book with the balance shown in the statement from the bank

Banking

The VDMC must keep its money in a bank account.

Who is responsible for financial management?

The Treasurer is responsible for the VDMCs financial management. He/she is accountable to the VDMC under the authority of its chairperson. The Treasurer's functions are to:
» Prepare a budget for use by the VDMC and monitor the use of funds according to the approved budget.
» Manage the VDMC's bank account and cash-on-hand
» Make payments and receive income on behalf of the VDMC
» Complete all the necessary documents and record every transaction in the cash record-book

General Record at UDMC/VDMC

» Attendance register
» Savings/Funds Register
» Proceeding register
» Regulations
» List of VDMC Members
» Emergency contact list
» Village profile
» Mapping of Resources
» List of trained members
» Hazard assessment document
» Vulnerabilities details
» Community Disaster Management Plan
» List of stakeholders
» Advocacy and networking material
» Project Documents – CCI Scheme
» CCI Project application
» List of committees – i.e CCI Implementation committee
» CCI Completion certificate

Financial Record
» Budget documents
» Payments
» Receipts
» Bank book /cheque book
» MOUs /Agreement
» Bank statements
» CCI Fund release request
» Record keeping of CCI materials, labor and financial information
» Master roll
» Ensure compliance to the project agreement with the donor

» Regularly report to the VDMC on the financial status of the ward account

What skills should the Treasurer have?

The Treasurer must have the following skills:
» Be good at financial calculations
» Be able to write clearly and read in English
» Be able to understand the financial management procedures

» Be strong-minded and completely honest
» Be neat, tidy and up-to-date with the work
» Be committed to the development of the ward

What tools and equipment does the Treasurer need?

Every treasurer must have:
» A calculator to assist with the calculations
» A stapler and a hole punch to assist with filing forms and documents
» Several lever arch files for filing duplicate forms, receipts, bank statements and other forms
» A cash-box which is big enough to hold the cash-on-hand and other important documents like the cheque book
» Stationery such as pens, paper, pencil and erasers
» A receipt book

What are the responsibilities of the other members of the VDMC?

Financial management is not only the responsibility of the treasurer. Other members of the VDMC also bear some responsibility, for example;
» The VDMC President - has overall responsibility for WWC including financial management. The President co-signs, with the treasurer, VDMC documents, cheques

and other financial documents such as contracts and purchase orders.
» The VDMC Secretary/manger - keeps the minutes of VDMC meetings and can co-signs cheques and other financial documents.
» The VDMC members - must attend regular VDMC meetings at which they approve the annual budget and periodic financial statements.

Why is it important for the VDMC to have written procedures for cash management?

Since members of the VDMC can change, it is important for the VDMC to write down exactly how it manages its finances. These procedures needs to be recorded in a manual, which should be made available to all members of the VDMC so that they fully understand how ward funds are being managed.

Where should the financial documents and the money be kept?

The financial records, documents and the cash-box must be kept in a secure place. If the VDMC has a secure office, then the financial documents and the cash-box can be kept there. Since most VDMCs do not have a secure office however, these items can be kept at the treasurer's home. All documents and records must be kept where they are dry and will not be eaten by rats and/or termites.

Record Keeping

The community should maintain an area development profile indicating the results of the baseline survey, priority needs and plan of action. This will be the basis of future actions and evaluation outcomes, The project record should be available at community level as well as at the project office. These records will help in compiling monthly, quarterly and annual reports The outcomes of the project and other valuable information should be shared with other stakeholders and community groups A display board placed in the central place in the locality can be an affective tool for sharing information with the community.

Salient features of documentation and reporting tools

Meeting Register:

The VDMCs/UCDMCs should keep a record of the meeting in a register. The records of the regular community meetings, including the issues discussed, decisions made and follow-up actions to be taken, should be documented in addition to a list of attendance and other relevant particulars. This register will facilitate efficient management of community based initiatives by the community, and interaction between the technical support team and the community. The committee should make a summary from the meeting register and submit it regularly to the project team. Similar registers should be maintained by the technical teams for the internal meetings.

Project Register:

The project register should contain the basic information about the implemented project and programme activities. The project register contains basic data regarding the project

Financial Management; Payments

»   VDMCs will prepare master role on daily basis and record the attendance of the laborers and get their signature/thumb impressions on the master role
»   These master role and amount of work done would be counter verified by the Field Engineers
»   Payment would be made on weekly basis by VDMC from VDMC account to laborers based on the number of working days as mentioned in the master role, after approval by the project implementing committee and approval by the Field Engineer.
»   Laborers will sign an acknowledgement receipt upon receiving payments from VDMC

implemented, which are documented in order of occurrence. The register may be divided into sections, on for each locality/project.

Guideline for Project Register

Locality/community based initiatives area and period
The name of the area should be indicated along with the time period of the recorded information.

Project
The project title, as indicated in the project proposal along with project type.

Beneficiary
The details i.e. name etc. should be written which also needs to be inline with project proposal.

Date of approval
The date of approval of the project by the RSP should be noted.

Date of grant disbursement

The date of which the grant/installment(s) was disbursed to VDMC is important for future reference.

Project duration

The project duration should be as mentioned in the project proposal and will again be of use in the determination of the project maturity date. (The USAID Tahafuz CBDRM Project specific formats for VDMC/UDMC are attached in annexes)

Other Records:

» VDMCs Resolution/request
» Bank Account details and statements
» Cost estimates of the project
» CCI/project register having details of material, labour and financial information
» Copies of cheques
» Details of project implementation committees
» Project completion certificate
» Procurement record
» Project completion report

Negotiation skills

Effective negotiation helps to resolve situations where what one want conflicts with what someone else wants. The aim of win-win negotiation is to find a solution that is acceptable to both parties, and leaves both parties feeling that they've won, in some way, after the event. This required due to following aspects;

» When one feel that someone is continually taking advantage of him/her?
» When one seem to have to fight ones corner aggressively, or ally with others, to win the resources one need?
» Or struggle to get what one want from people whose help is needed, but over whom one have little direct authority?

There are different styles of negotiation, depending on circumstances.

Where one do not expect to deal with people ever again and do not need their goodwill, then it may be appropriate to "play hardball", seeking to win a negotiation while the other person loses out.

Where there is a great deal at stake in a negotiation, then it may be appropriate to prepare in detail and legitimate "gamesmanship" to gain advantage.

Neither of these approaches is usually much good for resolving disputes with people with whom one have an ongoing relationship: If one person plays hardball, then this disadvantages the other person – this may, quite fairly, lead to reprisal later. Similarly, using tricks and manipulation during a negotiation can undermine trust and damage teamwork. While a manipulative person may not get caught out if negotiation is infrequent, this is not the case

when people work together routinely. Here, honesty and openness are almost always the best policies.

Preparing for a successful negotiation

Depending on the scale of the disagreement, some preparation may be appropriate for conducting a successful negotiation. For small disagreements, excessive preparation can be counter-productive because it takes time that is better used elsewhere. It can also be seen as manipulative because, just as it strengthens your position, it can weaken the other person's. However, if one need to resolve a major disagreement, then make sure you prepare thoroughly for which following points need to be considered;

» **Goals:** what do you want to get out of the negotiation? What do you think the other person wants?
» **Trades:** What do you and the other person have that you can trade? What do you each have that the other wants? What are you each comfortable giving away?
» **Alternatives:** if you don't reach agreement with the other person, what alternatives do you have? Are these good or bad? How much does it matter if you do not reach agreement? Does failure to reach an agreement cut you out of future opportunities? And what alternatives might the other person have?
» **Relationships:** what is the history of the relationship? Could or should this history impact the negotiation? Will there be any hidden issues that may influence the negotiation? How will you handle these?
» **Expected outcomes:** what outcome will people be expecting from this negotiation? What has the outcome been in the past, and what precedents have been set?

» **The consequences:** what are the consequences for you of winning or losing this negotiation? What are the consequences for the other person?
» **Power:** who has what power in the relationship? Who controls resources? Who stands to lose the most if agreement isn't reached? What power does the other person have to deliver what you hope for?
» **Possible solutions:** based on all of the considerations, what possible compromises might there be?

Style is critical

For a negotiation to be 'win-win', both parties should feel positive about the negotiation once it's over. This helps people keep good working relationships afterwards. This governs the style of the negotiation – displays of emotion are clearly inappropriate because they undermine the rational basis of the negotiation and because they bring a manipulative aspect to them.

Despite this, emotion can be an important subject of discussion because people's emotional needs must fairly be met. If emotion is not discussed where it needs to be, then the agreement reached can be unsatisfactory and temporary. Be as detached as possible when discussing your own emotions – perhaps discuss them as if they belong to someone else.

Negotiating successfully

» The negotiation itself is a careful exploration of your position and the other person's position, with the goal of finding a mutually acceptable compromise that gives you both as much of what you want as possible.
» People's positions are rarely as fundamentally opposed as they may

initially appear – the other person may have very different goals from the ones you expect!

» In an ideal situation, you will find that the other person wants what you are prepared to trade, and that you are prepared to give what the other person wants.

» Only consider win-lose negotiation if you don't need to have an ongoing relationship with the other party as, having lost, they are unlikely to want to work with you again.

» Negotiation skills also help the VDMC members while implementing the infrastructure development projects, during the purchase of construction material this skill reduce the cost and community will get reasonable rates of goods, at UDMC this skill will help them in negotiation the development projects with public and private sector agencies.

Capacity building of UDMC/VDMC at Tahafuz Project

Capacity building is a key component of the Tahafuz CBDRM Project. A team of trained professional master trainers will train VDMC and UDMC members to undertake community-based risk assessment and planning to increase communities' preparedness to disasters. Training of VDMC members will relate to disaster risk assessment, analysis and planning. They will also be trained in the formulation of disaster risk management plans, financial management, implementation of community critical infrastructure, in policy advocacy and networking with local government and other line agencies. This will enable them to reduce disaster risks and assist them in undertaking disaster mitigation measures. VDMCs will also be encouraged to include into hazards hazard mapping those hazards originating from outside the community.

After training of the VDMCs, two members (one man, one woman) will be selected to join the Union Council level UDMC. VDMs and UDMCs will receive training from Master Trainers in assessment, planning, management, formulation and execution of CBDRM plans at the village level as well as networking with all stakeholders at all levels.

#	Capacity Building Activity	Unit /UC
1.1	Training on Participatory Disaster Risk Assessment at Village Level (5 per village) 2 days duration and non residential	58
1.2	Training of VDMC on Disaster Risk Management and planning at Village Level (5 per village) 4 days duration and non residential	58
1.3	Training of Union Disaster Management Committee at UC Level (10 per UC, 5 days)	10
1.4	Training on Advocacy & Networking with Govt & other Agencies (5 per UC) 4 days residential	5
1.5	Meetings of VDMCs and UDMCs at UC level (6 per UC) 1 day	6

Training of VDMCs and UDMCs

The aim of training is to build and enhance the VDMC and UDMC capacities to successfully implement its disaster risk management related functions and to reduce disaster risks. The two main areas in which training will be imparted are:

» Training in community based disaster risk management
» Training in management and development.

The **disaster risk management training** will focus on the following aspects:

Disaster Preparedness and Response, which will cover the following:
» Search and rescue
» Medical first aid
» Relief coordination, distribution
» Emergency shelter management
» Evacuation management

Capacity building in disaster risk reduction, which will cover the following:
» Orientation on disaster reduction
» Conducting risk assessment
» Designing and conducting risk communication
» Designing local early warning systems, as well as linkages with DDMA, PDMA etc.
» Small scale structural mitigation
» Livelihood sustainability
» Advocacy for community vulnerability reduction

Organizational management and development training

This training is for the staff and members of the UDMC to equip them to manage the roles and functions of the UDMC effectively. Subjects to be covered are the following:

» Leadership
» Planning
» Negotiation, conflict management and conflict resolution
» Respond to emergencies
» Coordination and networking with Government and other agencies
» Provision of First Aid
» Financial management and record keeping to ensure accountability and transparency at all levels
» Coordination to tap financial resources in case of emergencies
» Collection, collation and sharing of damage assessment information with government and other stakeholders
» Supporting and mentoring VDMCs, particularly in implementation of their DRMPs
» Documentation and record keeping

While NRSP and TRDP is partner with RSPN in implementation of Tahafuz CBDRM Project in four districts of sindh, master trainers can
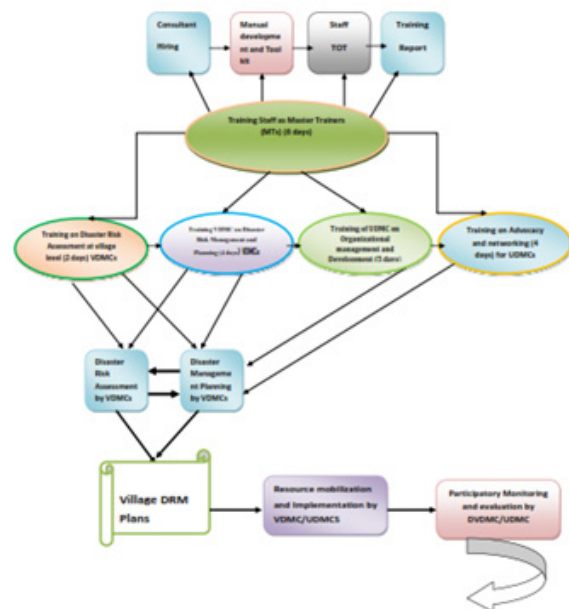
CBDRM –Tahafuz Capacity building and follow Up Actions Flow Chart

develop roll out plan for the implementation of training activities by using below mentioned format;

Training Code	Training	District	Talka	Union Council	Village	Training Venue	PAX	Training Team	Training Date
NRSP/T/ UDMC-001	CBDRM	BADIN							

Training Toolkit - CD

A toolkit has been developed for the facilitation of master trainers, this toolkit includes following things to facilitate the field trainers in implementation of UDMC/VDMC training;
» PowerPoint sessions of TOT
» Training formats
» Reading Material

» Video and pictures
» List of Master Trainers and other Trained Human Resources with contact numbers

This toolkit – CD provided to all participants who attended Training of Master Trainers being organized by RSPN at Islamabad in December 2012 for NRSP and TRDP.

Chapter 16

Training of Trainers and Training Cycle

Training of Trainers, and Training Cycle

Objectives

To equipped the participants about concepts of training, training of trainers and training cycle , this will enable the participants to plan , organize , manage, conduct and implement UDMC/VDMC training interventions at their own at field level.

Contents

- » Concepts of Training and Training of Trainers
- » Training Cycle
- » Planning of training/workshop
- » Characteristics of a good trainer
- » Trainers skills and Methodologies
- » Training Review and Feedback

Methodology

- » Power Point Presentations
- » Group discussions
- » Continuous interaction with participants
- » Taking feedback from the participants
- » Group work on different formats

Duration

Duration will be three Hours

Required materials

- » Power Point Presentation Handouts
- » Flash Cards
- » Flip Charts
- » Markers
- » Masking Tape
- » White and soft board
- » Board markers
- » Permanent Markers

Expected outcome

Participants will be able to plan, organize, arrange, conduct and implement UDMC/VDMC Training interventions according to the CBDRM Tahafuz Project requirement at field level. this will also enable the participants to facilitate and support UDMC and VDMC in their training and capacity building initiatives.

Extra reading material and sources

- » Handouts
- » USAID Tahafuz CBDRM Toolkit
- » www.adpc.net
- » www.ndma.org.pk

Training of Trainers, and Training Cycle

What is training?

Training is about acquiring knowledge, skills and attitudes. The initiation of training is a continuum of activities during which participants undergo a behavior modification process. The success of this educational and learning venture depends on how carefully the whole process is conceived and implemented.

»   Training is an exercise to bring desired behavioral modification in an individual by exposure to a simulated environment, making him/her capable of improved performance
»   Training is a structure intervention, focused for awareness raising and capacity building
»   It is an artificially created learning environment in which certain objectives are achieved
»   Training is the process to fill the gap between the desired performance and the actual performance

Training Cycle

A "Cycle" is a process where all stages are repeated. Cyclic process always takes a re start from zero. In the training cycle, first Training Needs Assessment (TNA) is carried out and then on its basis, training is designed. After designing training, preparation for various support activities is carried out and ultimately the training is conducted. After training, evaluation of the whole process is done. Based on the feedback of evaluation, the whole process may be initiated again when required. The following illustration shows main steps involved in a training event.

Training of Trainers

Training of Trainers (TOT) is predominantly a simulation exercise, which allows potential trainers to get a feel of what training is and how it is designed and delivered. This activity is carried out to develop a cadre of master trainers capable of training others. Generally there are three types of TOT as discussed below;

Post Training Evaluation
  Evaluation (workshop, Resource Person, Participants)
  Post Training Utilization
  Impact Assessment

Target Group

Training Need Assessment

Delivery of Training
  Daily Presentations
  Sessions
  Evaluation & Sessions Review
  Report Writing

TRAINING CYCLE

Designing of Training
  Setting of Objectives
  Contents
  Sessions Plans
  Duration
  Schedule
  Type of Training
  Training Methodology
  Review & Evaluation Plan

Pre Training Preparation
  Identification of Resource Persons
  Correspondence with Resource Persons
  Confirmation of Participants
  Venue Selection
  Budgeting
  Seating Arrangement
  Training Material Developed
  Administrative & Logistic Arrangements

Generic / Standard TOT: This is a standard TOT with the aim to develop skills of potential trainers or those young trainers who wish to polish their skills. It is not on a specific topic, but broadly touches all the aspects.

Custom / tailor made TOT: It is tailor made event on a specific topic. These may be "TOT on Gender Issues" or "TOT in Social Organization"

Interactive TOT: This is an event, which is designed on the current and specific needs of the trainees.

Training Planning; seven steps of planning a workshop:

Whenever you plan to do a workshop always keep these seven small steps in mind:

Who: Always be clear, who is it for (target participants) and who will do it (trainer).

Why: Ask question, what are the reasons for conducting this event.

When: Finalize duration and the dates on which it is to be held.

What for: Set the objectives of the workshop.

Where: Determine location or site of the event.

What: Prepare contents of the event, what will be included and what is to be left out.

How: Finalize methodology of the event considering the type of target group and material selected for the workshop.

What is a Trainer

There are many names for the person who facilitates guides and encourages learning among adults. A trainer is a person who facilitates behavioral change, moderates learning among adults and guides participants of a training event to share their experiences for transfers of knowledge and enhancement of skills. There are many names given to the trainer, i.e. moderator, facilitator, resource person, coordinator etc, based on the requirement of that specific event.

TOT USAID Tahafuz CBDRM;

This is a tailor made TOT event specially designed according to the specific training needs of Tahafuz Project staff to perform specific task to train UDMC/VDMC members on CBDRM and DRR in the sindh, Pakistan

What is the difference between a Teacher and a Trainer

 A teacher imparts knowledge to the students in a one way process. The trainer facilitates learning in an environment that is conducive to mutual sharing of experiences that results in modification in "Knowledge, Skills and attitudes"; it is a two way process. During training, not only the participants learn from the trainer but the trainer also learns from the participants by sharing of experiences, while in the classroom children only learn from the teacher.

What Makes a Good Trainer?

A good trainer is someone, with whom the participants can relate, has a warm and open personality, possess a sound knowledge of the subject and is intellectually superior to the participants.

Characteristics of a good trainer

» **Warm personality:** has an ability to demonstrate / acknowledge approval and acceptance of participants;

» **Good communication skills:** has extra ordinary communication in general and excellent listening skills in particular;

» **Pleasant personality:** is able to bring the participants together and built comrade ship; ability to control group without damaging it;

» **Facilitation skill:** has a natural style that

Training Methodologies

There is a wide selection of participatory training methods that can be used in a training event. A table list several methods with its characteristics, objectives and application.

Methods	Characteristics	Objectives	Application
Group Discussion	Participants discuss a specific topic to generate opinion as a group	· To achieve mutual understanding · To teach consensus	Both managers and facilitators Classroom training
Peer-learning	Learning from each other by sharing experiences	· To develop understand and build confidence as well as build rapport with peers	Both managers and facilitators Classroom training
Brain-storming	Exhaustive discussion to consider all related ideas about a topic without rejecting any of them	· To discover new ideas and responses quickly	Both managers and facilitators Classroom training
Exercises (Songs, Drawings, Games)	Involves physical activities, fun (do not appear to be directly related to the training topic)	· Group formation, ice-breaking, removing psychological barriers	Facilitators Classroom training
Simulation	Participants play roles of different characters within the given context of a case study and then discuss/ analyze it	· To see others attitudes, feelings and roles · To improve understanding of human behavior, including gender roles	Both managers and facilitators Structures, formal training
Role playing	Participants play roles of different characters based on their own real-life experience and the discuss/ analyze it	· To see others attitudes, feelings and roles · To improve understanding of human behavior, including gender roles	Both managers and facilitators Structured, formal training
Demonstration	Enhance understanding of functional knowledge of skills showing the actual skills or process in a close to life situation	· To illustrate actual processes and skills	Both managers and facilitators Structured, formal training
Practical exercise	Participants actually perform the tasks or activities that they have to learn (e.g. teaching practice)	· To retain knowledge, develop skills, to test the learning process	Both managers and facilitators Structured formal training
Field study/ visits	Planned visit of a field specific objectives	· To observe understand and learn from the real-life situations	Both managers and facilitators Structured, formal training
Case studies	Participants receive a described situation/ problem to be analyzed and solved	· To lean lessons from a given situation	Both managers and facilitators Structured, formal training
Question-answer techniques	Trainers give questions and the participants answer them individually or in groups	· To understand that more than one possible solution to a situation/ problem is possible	Both managers and facilitators Structured, formal training
Interactive lecturing	Lectures incorporating dialogues between the trainer and the participants	· To transfer knowledge effectively through active listening	Both managers and facilitators Structured, formal training
Visualization in participatory programs (VIPP)	Communication through written ideas/ information on cards and flip-charts	· To obtain exhaustive list of ideas in a short time · To encourage participants to express opinions in a clear manner	Both managers and facilitators Structured, formal training

encourages generation of new ideas, sharing of knowledge, experiences and skills of participants;

» **Good organiser:** is able to arrange and utilise available resources in efficient manner and make smooth logistical arrangements;

» **Conflict Management skill:** is able to notice and resolve participant's conflicts, problems and issues with ease;

» **Knowledgeable:** has a superior knowledge of the subject matter with a good life experience.

» **Understanding of Group Dynamics:** has an ability to understand group dynamics and its changing need and respond by adjusting the programme on the spot

» **Patient:**

» **Enthusiasm:** Is enthusiastic has plenty of energy and is able to motivate the participants for reaching the desired objective, happily and enthusiastically;

» **Flexible:** one who is flexible and has a natural ability to respond to the situation as it arises and is not stuck with pre-conceived notions;

» **Trust in other people and their abilities**

» **Self-aware:** is conscious of the surroundings, both cultural and environmental;

» **Confident:** has confidence without arrogance or a large dose of ego;

» **Creative and innovative thinking:** is not only creative, but has an ability to encourage participants to experiment with new ideas and be innovative;

» **Good drawing and writing skill:** should be able to draw and have legible handwriting;

The Facilitation

Facilitation is an art and a craft. It is a craft as in that the facilitator must know and follow the rules, learn how to pose the right question at the right moment and write clearly. It is also an art that requires experience and intuition since the facilitator must create a drama, which allows the group to give all of its potential to the process. The facilitator must be able to creatively get the group out of situations of conflict and to respond to the requirements of the group at any moment by adopting a new technique or by accepting an idea coming from the group. Hence the facilitator should be flexible and receptive, yet firm on the rules. Although the facilitator should not act as a content expert on the subject of the event, her role in events is not entirely neutral. S/he will openly show her/his values regarding the philosophy of events and not entirely neutral. But will never impose her/his technical position on the participants. The facilitator guides a process which brings about an understanding of the difference in values and options and which allows everyone to accept or reject other opinions. It is this process which leads to consensus in which everybody, including the facilitator, has contributed.

Training Review and Feedback

Review is important source of information and assessment of the training event, the importance is laso listed below;

» To recap previous day's work
» Create a link between yesterday and today
» Get feedback on learning
» Course correction
» Get focussed on the issues at hand
» Improve learning

Reviews are good source of feedback and correction mechanism. It is vital that it should be done either at the end of every day or even better, previous day review should be done at the beginning of a new day.

Annexes

Annex 1: Schedule ToT - USAID CBDRM Tahafuz Project

December 4-9, 2012		

Time	Session	Facilitator
December 3, 2012 /Day-0		
Evening	Participants arrival and settlement	RSPN Admin
Evening Before Dinner	Pre training introduction and assessment	Sohail Manzoor
	What is USAID Tahafuz CBDRM TOT	
December 4, 2012 /Day 1		
900	Registration and Recitation	Sohail Manzoor
915	Introduction (participants and USAID Tahafuz CBDRM TOT)	Sohail Manzoor
940	Hopes & Fears, training norms	Sohail Manzoor
	About Training	Sohail Manzoor
	· Training Objectives	
	· Training Methodology	
	· Training Schedule	
1030	Inauguration of training	
	· Introduction of RSPN /NRSP/TRDP	Khaleel Ahmed Tetlay
	Orientation about USAID Tahafuz CBDRM	
	· Project Objectives , Activities, Implementation Plan, Quality Assurance	Akbar Raza
1130	Tea Break and Group Photo	RSPN
1200	Orientation about Disaster	
	· Global Disaster Trends	Ahmed Hassan
	· Disaster situation in Pakistan	
	· Disaster Management system in Pakistan (DRM Institutions, Legal framework, NDMA, PDMA, DDMA, DDMU etc.)	
1330	Lunch	RSPN
1430	Community Based Disaster Risk Management	Mohammad Tahir Waqar
	· Basic Concept and DRM Cycle	
	· Importance	
	· Core Principal	
	· CBDRM Process-Steps	
	· Monitoring and Evaluation	
	· Formation of VDMC and UDMC	
	· Role and Responsibilities of VDMC and UDMC	
1800	Tea	
1830	Formation of PLGs and Assignments	Sohail Manzoor
	Review of USAID Tahafuz CBDRM Manual	
December 5, 2012 /Day -2		
900	Review of previous Day	Sohail Manzoor
930	Participatory Risk Assessment	Jalil Rehman
	Introduction to Disaster Risk Assessment	
1030	Tea	
1045	Hazards Assessment	Jalil Rehman
1330	Lunch	

1430	Vulnerability Assessment	Jalil Rehman
1730	Tea	
1800	Capacity Assessment	Jalil Rehman
2030	Review of the day	

December 6, 2012 /Day -3		
900	Review of previous Day	Sohail Manzoor
930	Community Action for Disaster / Emergency Response - I	Mohammad Ahsan
	· Common hazards and disaster response group	
	· Securing family and preparing for response	
	· How to manage Women, children and disable	
	· First aid and basic life support	
	· Evacuation: emergency and non emergency moves for victim	
	Tea 1100	
	Lunch 1330	
	Tea 1800	
1800	Group Work – Assignments	Sohail Manzoor

December 7, 2012 /Day -4		
900	Review of previous day	Sohail Manzoor
930	Community Action for Disaster / Emergency Response -II	Mohammad Ahsan
	· Snake, insect, animal bite and poisoning	
	· Incident command system and triage	
	· Fire emergencies/fire safety and prevention	
	· Dead body management	
	· Basic search and rescue techniques	
	· Lifting stabilizing and moving load	
	· Livestock Management	
	· Water emergencies	
	Tea 1100	
	Lunch 1330	
	Tea 1800	
1830	Assignments	Sohail Manzoor

December 8, 2012 /Day 5		
900	Review of previous day	
930	Participatory DRM Planning	Jalil Rehman
1000	Participatory DRM Planning and Community Organization and Need of Community Training	Jalil Rehman
1100	Tea	
1115	Disaster /Emergency Response	Jalil Rehman
	· Food and Nutrition Needs and Food Security in Emergency (Human and Livestock)	
	· Relief Distribution, Shelter,	
	Camp Management and Relief Distribution	
1300	Lunch	

1400	Participatory DRM Planning (DRR Plans) , importance, tools and practical work	Jalil Rehman
	Guidelines for Development DRR Plans at VDMCs /UDMCs	Atta Rehman
1800	Tea	
1830	Advocacy, networking and gender mainstreaming by UCDMCs	Imran Alvi
	· Advocacy and Networking for DRR	Atta Rehman
	· Basic Concepts of Gender and Development	
	· Gender/women vulnerability	
2000	Assignment	Sohail Manzoor

December 9, 2012 /Day -6		
900	Group Presentation	Participants
930	Organizational Management and Development (For UCDMC)	Najaf Khan
	Leadership	
	· Planning	
	· Negotiation Skills	
	· Conflicts management and Resolution	
1130	Tea	
1145	Organizational Management and Development (For UCDMC)	Sohail Manzoor
	· Financial Management	
	· Record Keeping	
	· Accountability and Transparency	
1300	Lunch	
1400	Organization, planning management and implementation of CBDRM Tahafuz capacity building program	Participants /Sohail Manzoor
	· Training Design	
	· Pre training arrangements	
	· Conduction of training	
	· Post training activities	
	Capacity Building of VDMC and UDMC at Tahafuz	
	· Training on Participatory Disaster Risk Assessment at Village	
	· Training of VDMC on Disaster Risk Management and planning at Village Level	
	· Training of Union Disaster Management Committee at UC Level	
	· Training on Advocacy & Networking with Govt & other Agencies	
	· Meetings of VDMCs and UDMCs at UC level	
1500	Development of Roll out Plan	Sohail Manzoor
1600	Post Test and Workshop Evaluation	Sohail Manzoor
1630	Clearing the mist, Certificate Distribution & Workshop Closing	CEO RSPN and RSPN Team, Sohail Manzoor
1700	Tea	

Annex 2: Pre Test and Post Test format for ToT - USAID CBDRM Tahafuz Project

#	What is your understanding level about below mentioned terms	Understanding Level		
		Low	Average	Good
1	RSPN and its role in Tahafuz Project			
2	Objective of this Training of Trainers			
3	CBDRM ,Tahafuz Project			
4	Global Disaster Trends			
5	Climate change and DRR			
6	Disaster situation in Pakistan			
8	Disaster Management system in Pakistan			
9	What is CBDRM			
12	CBDRM Process(Steps) in Tahafuz Project			
13	Formation and role /responsibilities of VDMC, UDMC			
15	Participatory Risk Assessment at village level by VDMC			
16	Participatory Planning to disaster risk management			
21	Participatory Management			
24	Disaster Risk communication at community level			
25	Family level DRR Measures			
27	Multi Hazards/Disasters ,preparedness , mitigation and preventive measures at community level			
28	Multi Hazards response and preventives measures			
29	Community Managed implementation			
30	Resource mobilization for Disaster Risk Reduction			
31	Mainstreaming the DRR in Community Developing			
32	Participatory monitoring and Evaluation by VDMC and UDMCs			
33	Development of DRR plan at VDMC level			
34	First Aid			
35	Search and Recue			
36	Fire fighting			
37	Need Assessment (Initial and Details)			
38	Relief Distribution			
39	Shelter			
40	Camp management			
41	Early warning System by VDMC and UDMCs			
42	Food and Nutrition Needs in Emergency			
43	Food Security (in terms of Human and livestock)			
44	Importance of Advocacy and Networking for DRR			
45	Gender/women vulnerability			
46	Leadership skills			
47	Planning skills			
48	Negotiation Skills			
49	Conflicts management, Resolution and Negotiation Skills			
50	Financial Management skills			
51	Record Keeping skills			
52	Accountability and Transparency			
53	Capacity building plan and activities for VDMC and UDMCs			

54	Training on Participatory Disaster Risk Assessment at Village Level			
55	Training of VDMC on Disaster Risk Management and planning at Village Level			
56	Training of Union Disaster Management Committee at UC Level			
57	Training on Advocacy & Networking with Govt & other Agencies			
58	Meetings of VDMCs and UDMCs at UC level (6 per UC) 1 day			
59	Training coordination, conduction and assessment			
60	Training Record, Report and Financial Management			
61	What, why and how to develop rollout plan for capacity building of Tahafuz Project			

Key; Low – 0 Average -1 and Good -2

Annex 3: Participants Registration Sheet - USAID CBDRM Tahafuz Project

#	Name	Education	Experience	Position	Organization	Contact	Signatures

Annex 4: Participants Attendance Sheet - USAID CBDRM Tahafuz Project

#	Name	Day-1	Day-2	Day-3	Day-4	Day-5	Day-6

Annex 5: VDMC/UDMC Capacity Building Plan under Tahafuz CBDRM Project

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/ UC	# Participants/ village/UC	total # of participants/ UC/UDMC	Pax/ Training event	# Training event/ meetings
1	Training Staff as Master Trainers (MTs) 6 Days	NRSP and TRDP	Thatta, Badin(NRSP) ,Tharparker and Umerkot (TARDEP)	NA	NA	NA	NA	NA	30	1
		Total							30	1
2	Village Disaster Risk Assessmement Training (2 day duration, non residential)	National Rural Support Program (NRSP)	THATTA	Jati	Gul Muhammad Baran	19	5	95	20	4.75
					Kothi	20	5	100	20	5
				Kharo chan	Kharo chan	28	5	140	20	7
				Keti Bunder	Keti Bunder	27	5	135	20	6.75
				Ghora Bari	Garho	13	5	65	20	3.25
				Thatta Total		107	25	535		26.75
			BADIN	Bago	Dei Jurkus	8	5	40	20	2
					Khoski	8	5	40	20	2
				Badin	Mithi-III	9	5	45	20	2.25
					Kadhan	6	5	30	20	1.5
				Shaheed Fazal Rahu	Ahmed Rajo	22	5	110	20	5.5
				Badin Total		53	25	265		13.25
		NRSP Total				160	50	800	0	40

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/ UC	# Participants/ village/UC	total # of participants/ UC/UDMC	Pax/ Training event	# Training event/ meetings
		Thardeep Rural Development Program	THARPARKER	Diplo	Dabhro	7	5	35	20	1.75
					Bolhari	8	5	40	20	2
					Jhirmiryo	6	5	30	20	1.5
				Mithi	Bhakuo	4	5	20	20	1
					Manjthi	4	5	20	20	1
				Tharparker Total		29	25	145		7.25
			Umerkot	Umerkot	Kaplore	5	5	25	20	1.25
					Kharoro Sayed	9	5	45	20	2.25
					Chhore	4	5	20	20	1
					Faqeer Abdullah	14	5	70	20	3.5
					Khejrari	11	5	55	20	2.75
				Umerkot Total		43	25	215		10.75
			TRDP Total			72	50	360	0	18
3	Village Disaster Risk Management and Planning Training (2 day duration, non residential)	National Rural Support Program (NRSP)	THATTA	Jati	Gul Muhammad Baran	19	5	95	20	4.75
					Kothi	20	5	100	20	5
				Kharo chan	Kharo chan	28	5	140	20	7
				Keti Bunder	Keti Bunder	27	5	135	20	6.75
				Ghora Bari	Garho	13	5	65	20	3.25
				Thatta Total		107	25	535		26.75

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/UC	# Participants/ village/UC	total # of participants/ UC/UDMC	Pax/ Training event	# Training event/ meetings
			BADIN	Bago	Dei Jurkus	8	5	40	20	2
					Khoski	8	5	40	20	2
				Badin	Mithi-III	9	5	45	20	2.25
					Kadhan	6	5	30	20	1.5
				Shaheed Fazal Rahu	Ahmed Rajo	22	5	110	20	5.5
				Badin Total		53	25	265		13.25
			NRSP Total			160	50	800	0	40
		Thardeep Rural Development Program	THARPARKER	Diplo	Dabhro	7	5	35	20	1.75
					Bolhari	8	5	40	20	2
					Jhirmiryo	6	5	30	20	1.5
				Mithi	Bhakuo	4	5	20	20	1
					Manjthi	4	5	20	20	1
				Tharparker Total		29	25	145		7.25
			Umerkot	Umerkot	Kaplore	5	5	25	20	1.25
					Kharoro Sayed	9	5	45	20	2.25
					Chhore	4	5	20	20	1
					Faqeer Abdullah	14	5	70	20	3.5
					Khejrari	11	5	55	20	2.75
				Umerkot Total		43	25	215		10.75
			TRDP Total				50	360	0	18

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/ UC	# Participants/ village/UC	total # of participants/ UC/UDMC	Pax/ Training event	# Training event/ meetings
4	Union Disaster Management Committee Training on Organizational Management and Development (5 Days ,non residential)	National Rural Support Program (NRSP)	THATTA	Jati	Gul Muhammad Baran	NA	NA	10	20	0.5
					Kothi	NA	NA	10	20	0.5
				Kharo chan	Kharo chan	NA	NA	10	20	0.5
				Keti Bunder	Keti Bunder	NA	NA	10	20	0.5
				Ghora Bari	Garho	NA	NA	10	20	0.5
				Thatta Total				50		2.5
			BADIN	Bago	Dei Jurkus	NA	NA	10	20	0.5
					Khoski	NA	NA	10	20	0.5
				Badin	Mithi-III	NA	NA	10	20	0.5
					Kadhan	NA	NA	10	20	0.5
				Shaheed Fazal Rahu	Ahmed Rajo	NA	NA	10	20	0.5
				Badin Total				50		2.5
			NRSP Total					100		5
		Thardeep Rural Development Program	THARPARKER	Diplo	Dabhro	NA	NA	10	20	0.5
					Bolhari	NA	NA	10	20	0.5
					Jhirmiryo	NA	NA	10	20	0.5
				Mithi	Bhakuo	NA	NA	10	20	0.5
					Manjthi	NA	NA	10	20	0.5
				Tharparker Total				50		2.5

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/ UC	# Participants/ village/UC	total # of participants/ UC/UDMC	Pax/ Training event	# Training event/ meetings
			Umerkot	Umerkot	Kaplore	NA	NA	10	20	0.5
					Kharoro Sayed	NA	NA	10	20	0.5
					Chhore	NA	NA	10	20	0.5
					Faqeer Abdullah	NA	NA	10	20	0.5
					Khejrari	NA	NA	10	20	0.5
				Umerkot Total				50		2.5
			TRDP Total					100		5
5	Training on Advocacy and Networking with Govt and other Agencies(4 Days residential Training)	National Rural Support Program (NRSP)	THATTA	Jati	Gul Muhammad Baran	NA	NA	5	25	1
					Kothi	NA	NA	5		
				Kharo chan	Kharo chan	NA	NA	5		
				Keti Bunder	Keti Bunder	NA	NA	5		
				Ghora Bari	Garho	NA	NA	5		
				Thatta Total				25		1
			BADIN	Bago	Dei Jurkus	NA	NA	5	25	1
					Khoski	NA	NA	5		
				Badin	Mithi-III	NA	NA	5		
					Kadhan	NA	NA	5		
				Shaheed Fazal Rahu	Ahmed Rajo	NA	NA	5		
				Badin Total				25		1
			NRSP Total					50		2

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/UC	# Participants/village/UC	total # of participants/UC/UDMC	Pax/Training event	# Training event/meetings
		Thardeep Rural Development Program	THARPARKER	Diplo	Dabhro	NA	NA	5	1	1
					Bolhari	NA	NA	5		
					Jhirmiryo	NA	NA	5		
				Mithi	Bhakuo	NA	NA	5		
					Manjthi	NA	NA	5		
				Tharparker Total				25	1	
			Umerkot	Umerkot	Kaplore	NA	NA	5	25	1
					Kharoro Sayed	NA	NA	5		
					Chhore	NA	NA	5		
					Faqeer Abdullah	NA	NA	5		
					Khejrari	NA	NA	5		
				Umerkot Total				25		1
			TRDP Total					50		2

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/UC	# Participants/village/UC	total # of participants/UC/UDMC	Pax/Training event	# Training event/meetings
6	VDMC-UDMC Meetings(1 Day Duration)	National Rural Support Program (NRSP)	THATTA	Jati	Gul Muhammad Baran	19	NA	NA	NA	6
					Kothi	20	NA	NA	NA	6
				Kharo chan	Kharo chan	28	NA	NA	NA	6
				Keti Bunder	Keti Bunder	27	NA	NA	NA	6
				Ghora Bari	Garho	13	NA	NA	NA	6
				Thatta Total		107				30

S #	Name/Types of Training	RSPs Name	District Name	Taluka	UC name	# Revenue Village/ UC	# Participants/ village/UC	total # of participants/ UC/UDMC	Pax/ Training event	# Training event/ meetings
			BADIN	Bago	Dei Jurkus	8	NA	NA	NA	6
					Khoski	8	NA	NA	NA	6
				Badin	Mithi-III	9	NA	NA	NA	6
					Kadhan	6	NA	NA	NA	6
				Shaheed Fazal Rahu	Ahmed Rajo	22	NA	NA	NA	6
				Badin Total		53				30
			NRSP Total			160				60
		Thardeep Rural Development Program	THARPARKER	Diplo	Dabhro	7	NA	NA	NA	6
					Bolhari	8	NA	NA	NA	6
					Jhirmiryo	6	NA	NA	NA	6
				Mithi	Bhakuo	4	NA	NA	NA	6
					Manjthi	4	NA	NA	NA	6
				Tharparker Total		29				30
			Umerkot	Umerkot	Kaplore	5	NA	NA	NA	6
					Kharoro Sayed	9	NA	NA	NA	6
					Chhore	4	NA	NA	NA	6
					Faqeer Abdullah	14	NA	NA	NA	6
					Khejrari	11	NA	NA	NA	6
				Umerkot Total		43				30
			TRDP Total			72				60

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