Section 1:

Key Concepts and Risk Factors

This section contains ten learning activities that are mostly conceptual in nature, but practical in application. They aim at developing participants' understanding of concepts and terminology with regard to risk, both as it shapes the daily lives of people and communities, and as it impacts on the work of non-governmental and humanitarian organisations. The activities in this section "set the stage" for further learning activities, as they stimulate critical thinking around issues of risk reduction as an essential component of development.

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What terms do we use in disaster management?

Purpose

This activity aims to build a common understanding of 'disaster management' terminology.

Procedure

In this activity participants begin by giving their own definitions of terms such as 'hazard', 'emergency preparedness', 'mitigation' etc. This is followed by discussions until the group reaches consensus on the meaning and definition of terms.

Time

◆ 1 hour

Materials

◆ glossary of disaster management terms as a reference and possible post-session hand-out (see resources)
Process

Introduction
1. Introduce the activity by outlining the purpose and procedure.

Participant Action
1. Ask participants to reflect briefly on some of the key terms they associate with 'disaster management'.
2. Ask participants to name those key words. Write each word on a separate sheet of flipchart paper.
3. Stick flipcharts on the walls.
4. Invite participants to come forward and write brief descriptions explaining those key words on the flipcharts.

- Encourage many different suggestions from as many of the participants as possible and collect a broad spectrum of words. Do not 'censure' any suggestions at this stage.

Review and Discussion
1. In plenary, facilitate a discussion around each of the descriptive words and phrases written on the flipchart paper:
   - Ask for clarification and examples.
   - Ensure that meanings of terms are clearly differentiated.
   - Mark those words that are crucial to the definition.
   - Agree on a broad definition of each term.

2. Ask participants to work in pairs. Ask each pair to summarise the discussion by writing one of the terms and its agreed-upon definition on flipchart paper.
3. Review the 'glossary on flipchart' in a gallery walk.

Hint
You could suggest that this list of terms and definitions on flipcharts should be displayed as a reference throughout the course. This will facilitate continued common understanding of terminology.
GLOSSARY OF DISASTER MANAGEMENT TERMS

Disaster management

A collective term encompassing all aspects of planning for and responding to disasters, including both pre- and post-disaster activities. It may refer to the management of both the risks and consequences of disasters.

Disaster

A serious disruption of the functioning of a society, causing widespread human, material, or environmental losses which exceed the ability of the affected society to cope using only its own resources. Disaster is sometimes also used to describe a catastrophic situation in which the normal patterns of life (or eco-systems) have been disrupted and extraordinary, emergency interventions are required to save and preserve human lives and/or the environment. Disasters are frequently categorised according to their perceived causes and speed of impact.

Human-made disaster

Disaster or emergency situation of which the principal, direct causes are identifiable human actions, deliberate or otherwise. Apart from “technological disasters” this mainly involves situations in which civilian populations suffer casualties, losses of property, basic services and means of livelihood as a result of war, civil strife, other conflict or policy implementation. In many cases, people are forced to leave their homes, giving rise to congregations of refugees or externally or internally displaced persons.

Slow-onset disasters

(also called Creeping Disasters or Slow-onset Emergencies)

Situations in which the ability of people to sustain their livelihood slowly declines to a point where survival is ultimately jeopardised. Such situations are typically brought on or precipitated by ecological, social, economic or political conditions.
Sudden-onset natural disasters

Sudden calamities caused by natural phenomena such as earthquakes, floods, tropical storms, volcanic eruptions. They strike with little or no warning and have an immediate adverse effect on human populations, activities, and economic systems.

Technological disasters

Situations in which large numbers of people, property, infrastructure, or economic activity are directly and adversely affected by major industrial accidents, severe pollution incidents, nuclear accidents, air crashes (in populated areas), major fires, or explosions.

Hazard

(also called Hazardous Phenomenon or Event)

A rare or extreme natural or human made event that threatens to adversely affect human life, property or activity to the extent of causing disaster. A hazard is a natural or human-made phenomenon which may cause physical damage, economic losses, or threaten human life and well-being if it occurs in an area of human settlement, agricultural, or industrial activity. Note, however, that in engineering, the term is used in a more specific, mathematical sense to mean the probability of the occurrence, within a specified period of time and a given area, of a particular, potentially damaging phenomenon of a given severity or intensity.

Human-made hazard

A condition which may have disastrous consequences for a society. It derives from technological processes, human interactions with the environments, or relationships within and between communities.

Natural hazard

Natural phenomena which occur in proximity and pose a threat to people, structures or economic assets and may cause disaster. They are caused by biological, geological, seismic, hydrologic, or meteorological conditions or processes in the natural environment.

Hazard assessment

(also called Hazard Analysis or Evaluation)

The process of estimating, for defined areas, the probabilities of the occurrence of potentially-damaging phenomena of given magnitudes within a specified period of time.
Hazard assessment involves analysis of formal and informal historical records, and skilled interpretation of existing topographical, geological, geomorphologic, hydrological and land-use maps, as well as analysis of social and economic and political conditions.

**Hazard mapping**

The process of establishing geographically where and to what extent particular phenomena are likely to pose a threat to people, property, infrastructure, and economic activities. Hazard mapping represents the results of hazard assessment on a map, showing the frequency / probability of occurrences of various magnitudes or durations.

**Risk**

Risk is defined as the expected losses (lives lost, persons injured, damage to property, and disruption of economic activity or livelihood) caused by a particular phenomenon. Risk is a function of the probability of particular occurrences and the losses each would cause. Other analysts use the term to mean the probability of a disaster occurring and resulting in a particular level of loss. A societal element is said to be ‘at-risk’ or ‘vulnerable’, when it is exposed to known hazards and is likely to be adversely affected by the impact of those hazards if and when they occur. The communities, structures, services, or activities concerned are described as “elements at risk”.

**Risk assessment**

*(sometimes called Risk Analysis or evaluation)*

Risk analysis is a process of determining the nature and scale of losses and damage due to disaster which can be anticipated in particular areas during a specified time period. Evaluation of risk is the social and political judgement of various risks by the individuals and communities that face them. This involves trading off perceived risks against potential benefits and also includes balancing scientific judgements against other factors and beliefs.

**Risk mapping**

The presentation of the results of risk assessment on a map, showing the levels of expected losses which can be anticipated in specific areas, during a particular time period, as a result of particular disaster hazards.

**Vulnerability**

The extent to which an individual, community, sub-group, structure, service, or geographic area is likely to be damaged or disrupted by the impact of a particular disaster hazard.
Vulnerability analysis

The process of estimating the vulnerability to potential disaster hazards of specified elements at risk. For engineering purposes, vulnerability analysis involves the analysis of theoretical and empirical data concerning the effects of particular phenomena on particular types of structures. For more general socio-economic purposes, it involves consideration of all significant elements in society, including physical, social and economic considerations (both short- and long-term), and the extent to which essential services and traditional and local coping mechanisms are able to continue functioning.

Emergency

An extraordinary situation where there are serious and immediate threats to human life as a result of disaster, imminent threat of a disaster, cumulative process of neglect, civil conflict, environmental degradation and socio-economic conditions. An emergency can encompass a situation in which there is a clear and marked deterioration in the coping abilities of a group or community.

Preparedness

Measures to ensure the readiness and ability of a society to forecast and take precautionary measures in advance of an imminent threat, and to respond to and cope with the effects of a disaster by organising and facilitating timely and effective rescue, relief and appropriate post-disaster assistance.

Food security

Access by all people at all times to enough food for an active, healthy life. Its essential elements are availability of food and ability to acquire it. The FAO definition of food security includes the following requirements: adequate supply, stable supply, and access to the supply (including adequate consumption, adequate income in relation to food prices and access to employment).

Food insecurity, in turn is the lack of access to enough food. There are two kinds of food insecurity: chronic food insecurity which results in a continuously inadequate diet, and acute food insecurity which is a temporary decline in a household's access to enough food.

Post disaster assessment

(sometimes called Damage and Needs Assessment)

The process of determining the impact of a disaster or events on a society, the needs for immediate, emergency measures to save and sustain the lives of survivors, and the possibilities for expediting recovery and development.
Assessment is an interdisciplinary process undertaken in phases and involving on-the-spot surveys and the collation, evaluation and interpretation of information from various sources concerning both direct and indirect losses, short-and long-term effects. It involves determining not only what has happened and what assistance might be needed, but also defining objectives and how-relevant assistance can actually be provided to the victims. It requires attention to both short-term needs and long-term implications.

**Disaster mitigation**

Mitigation refers to measures which can be taken to minimise the destructive and disruptive effects of hazards and thus lessen the magnitude of a disaster. Mitigation measures can be of different kinds, ranging from physical measures such as flood defences or safe building design, to legislation, training and public awareness. Mitigation is an activity which can take place at any time: before a disaster occurs, during an emergency, or after disaster, during recovery or reconstruction.

**Disaster preparedness**

Measures that ensure the readiness and ability of a society to (a) forecast and take precautionary measures in advance of an imminent threat (in cases where advance warnings are possible), and (b) respond to and cope with the effects of a disaster by organising and delivering timely and effective rescue, relief and other appropriate post-disaster assistance. Preparedness involves the development and regular testing of warning systems (linked to forecasting systems) and plans for evacuation or other measures to be taken during a disaster alert period to minimise potential loss of life and physical damage; the education and training of officials and the population at risk; the establishment of policies, standards, organisational arrangements and operational plans to be applied following a disaster impact; the securing of resources (possibly including the stockpiling of supplies and the earmarking of funds); and the training of intervention teams. It must be supported by enabling legislation.

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1. These definitions come from a number of sources including United Nations Development Programme (UNDP), Food and Agriculture Organisation (FAO), Andrew Maskrey (Disaster Mitigation - A Community Based Approach), with some modifications and additions.
What are the components of disaster management?

Purpose
This activity aims to clarify the differences between the key elements of disaster management, and their interconnectedness.

Procedure
Through a process of creating ‘spider-diagrams’ participants distinguish between key concepts and activities in disaster management/reduction.

Time
- 1 hour

Materials
- blank strips of paper or card

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Introduction

1. Introduce the activity by outlining the purpose and procedure.

2. Ask participants whether they are familiar with the meaning of ‘topic webs’ or ‘spider-diagrams’.
   — Explain that this is a useful process for drawing out and organising information such as the various elements of disaster management.
   — If any participants are familiar with ‘spider-diagrams’ ask them to explain and briefly illustrate what a simple ‘spider-diagram’ might look like.

Participant Action

1. Give each participant three or more blank strips of paper.

2. Give the following instruction:

   Write the key words you consider to be central to ‘disaster management’ on the strips of paper; for example ‘mitigation’. (one concept per paper)
   (allow approximately 5-10 minutes for this)

3. Write the words ‘disaster management’ on the centre of the board or newsprint. Draw a box around the words.

4. Ask participants to come forward and take turns in sticking their strips of paper next to / around the words ‘disaster management’.

Review and Discussion

1. In plenary, review the arrangement of words. Ask questions such as the following:
   - Should the words be in any specific order?
   - Which words belong together and how should they be arranged to show this relationship?
   - Which words refer to concepts in disaster management, and which describe specific actions /activities (eg ‘planting woodlots’ or ‘distributing seeds’)?
2. Move words describing activities into a separate list entitled ‘disaster management activities’.

3. Remove duplicate words. Move any words that do not fit where they have been stuck.

4. Ask participants to establish links between the words by drawing lines denoting relationships.

5. Ask participants to identify the area of disaster management in which they work predominantly.

6. Ask participants to copy the ‘mind-map’ as this will provide a useful reference record of their learning.

*This is an example of one type of web / diagram, showing groupings and linkages.*
What do we mean by hazards, risks, vulnerabilities and capacities?

Purpose

This activity asks participants to apply their understanding of key terms and concepts in disaster management to specific hazards.

Note

People deal with risks in their daily lives and they use 'disaster language' to describe mishaps and accidents. However, careless use of terms leads to miscommunication.

Procedure

This activity begins with a simple story that illustrates disaster terminology. After a discussion about how vulnerability increases risk, participants are asked to develop their own stories that illustrate specific hazards in people’s daily lives.

Time

- 1½ - 2 hours
Process

Introduction

1. Introduce the activity by outlining the purpose and procedure.

2. Tell a brief story which illustrates the effects of a common hazard on a number of people in a daily life situation. In your story use disaster terms such as hazard, risk, vulnerability and capacity.

Sample Story

Mamblongo is a pensioner who lives quite close to the tar road that leads to town. She is happy that the walk from her house to the road is not far. But she is always worried about that little stretch that she has to walk along the road to the busstop because the minibus taxis zoom past at great speed. 'Those buses are really a hazard,' she was telling her daughter: 'Only last week another child was killed when a minibus swerved to avoid a goat.' And the weekend before she had to attend the funeral of her neighbour who had been knocked dead by a minibus. But this is the shortest way to get to the busstop and these days she walks so slowly. So she rather takes the risk along the road, than the risk of missing the bus by going the long way through the bush. Those paths always pain her legs. Of course, if she were young and healthy like her daughter, she would not be so vulnerable - she could easily just jump out of the way if a minibus came....

3. Ask participants to identify the hazards, risks, vulnerabilities and capacities referred to in the story. You may want to write the terms and examples given on newsprint.
4. Ask questions to further define hazard, vulnerability, risk and capacity referred to in the story. You may ask questions such as the following:

? Does this hazard pose an equal risk to all the people exposed to it? If not, why not?

? What makes some people more / less vulnerable?

? In this story, how do you think this risk is perceived by the different people affected? Are there differences? Why?

5. Write up and explain the following equation, referring to the story as an example:

\[ H(\text{hazard}) + V(\text{vulnerability}) = R(\text{risk}) \]

\[ \text{(speeding minibus taxi)} + \text{(elderly frail woman)} = \text{(risk of accident)} \]

**Participant Action**

1. Ask participants to get into small groups of 3-4 people.

2. Introduce the next activity: participants are asked to apply their knowledge of terminology to specific case scenarios.

3. Instruct each group to do the following:

   Develop a simple story that illustrates a common risk in a familiar community. Show how vulnerability makes a difference in terms of real risk and perceived risk. How do people cope with it? What capacities do they draw on?

   Allow 20 minutes for this activity.

*Hint*

This activity was developed on the basis of a story told by one of the participants in the SADMTF course. You may want to tell this story as an example of what the given task involves.

In order to illustrate ‘hazard’, ‘risk’ and ‘capacity’ he told the following tale:

“In a forest near the little village of Donga lives a dangerous snake. Whenever the people of the village would pass through the forest in order to get to the river the snake would drop down on them, and bite them, and they would die. So the people of the village always taught their children to carry a big stone on their head, so that the snake might not bite them.”
Review and Discussion

1. Call participants together and ask each group to share its tale.

2. Review the stories:
   - Identify the given hazards, vulnerabilities, risks and capacities.
   - Ask for responses: what did participants like / dislike?
   - Ask for suggestions on how the stories could be improved, for example; made more precise, culturally accurate, relevant, etc.

3. Initiate a discussion around risk: why do perceptions of risk differ from person to person, community to community, society to society?

4. Ask a participant to sum up what s/he learnt from the activity.
How do we check our understanding of terms?

Purpose

This activity aims to build confidence and understanding in the use of key disaster management terms.

This process allows participants to check and improve their understanding of disaster management terminology and concepts.

Procedure

Participants work with definitions of various terms, written on cards. The process of trying to match those definitions with key terms involves differentiated thinking and leads to lively debate.

Time

- 1 hour

Materials

- A set of definitions of disaster terminology, taken from different sources and written on individual cards (see resources)
- Copies of those definitions on OHP slides
- Key terms written on flipchart paper or cards displayed on the wall (see point 4)
Process

Introduction

1. Outline the purpose and procedure of the activity.
   Point out that disaster management is a relatively young field and definitions of key terms given in the literature often differ. This causes confusion.

2. Distribute cards with written definitions amongst the participants.

3. Suggest that participants work in pairs. Give the following instruction:

   - Read the definition given on your card
   - Decide which of the displayed terms is defined
   - Check your decision with your partner

   You have approximately 5-10 minutes for this task

4. Meanwhile, arrange and display the key terms on the wall, in the following way:
Participant Action
1. Participants spend 5-10 minutes on their task.

Review and Discussion
1. Point to the first term: hazard, and ask which participant thinks s/he has the card with the definition of ‘hazard’.
2. Ask the participant who indicates s/he has the appropriate definition to read out her/his card.
   Check whether other participants agree with this being a definition of ‘hazard’.
3. In case of disagreement: display the given definition on OHP slide, in order to allow all participants to read what is written on the card. This facilitates participation in discussion. Encourage debate and contestation.
4. Manage the discussion: If necessary, explain the key difference between one term/concept and another.
5. When participants have reached consensus stick the card underneath the term displayed.
6. Proceed in this way with all other terms / definitions.
7. Sum up the activity by reminding participants that the definitions are guidelines rather than cut and dry ‘rules’ as the understanding and usage of terms and concepts are flexible and changing as the field of disaster management develops.

SUGGESTED SOLUTIONS:
1 emergency
2 risk
3 hazard
4 disaster
5 vulnerability
6 risk
7 risk
8 risk
9 elements at risk
10 emergency preparedness and response
11 disaster preparedness

Hint
You could ask participants to write examples of key emergencies, hazards, risks, etc. on cards and ask each other to classify them in the same way.
DEFINITIONS OF DISASTER TERMINOLOGY

1. A situation where there are serious and immediate threats to human life because of
   - a disaster
   - threat of a disaster
   - process of neglect
   - civil conflict
   - environmental degradation

2. This term refers to the expected impact of a given element at risk over a future specified time period.

3. An event with the potential to cause injury or death, or to damage property or environments on which people depend.

4. A serious disruption of the functioning of a community causing widespread human, material or environmental losses which exceed the ability of the affected community to cope using its own resources.
5. A condition or set of conditions which reduces people's ability to prepare for, withstand or respond to a hazard.

6. The degree of negative change anticipated when hazard(s) occur under conditions of vulnerability.

7. The extent to which a community, structure or geographic area is likely to be damaged or disrupted by the impact of a particular hazard, on account of their nature, construction, and proximity to a hazardous area.

8. $\text{HAZARD} \times \text{VULNERABILITY} = ?$

9. PEOPLE
PROPERTY
ECONOMY
SOCIAL SERVICES
ENVIRONMENT

10. An ability to predict, respond to and cope with the effects of an emergency, to reduce its effects and ensure timely and appropriate response.

11. The ability to predict, respond to and cope with the effects of a disaster.
How does the ‘disaster crunch model’ work?¹

**Purpose**

This activity aims to clarify how the link between hazards and vulnerabilities increases the risk of disaster.

Participants consider how vulnerabilities lead to increased risk, and how key interventions can avert disasters.

**Procedure**

This activity begins with a reflection on the impact of hazards on participants. It then moves to a more theoretical discussion based on the ‘disaster crunch model’. Finally, participants test the proposed model by applying the components to specific case scenarios in southern Africa.

**Time**

- 90 minutes

**Materials**

- copies of ‘The Disaster Crunch Model’ for each participant, and on OHP slide (see resources)
- pens and paper

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Process

Introduction

1. Outline the purpose and procedure of the activity.

2. Remind participants that the aim of this course is to switch the focus from disaster management as emergency preparedness and response, to disaster reduction as the cornerstone of development. Explain that 'hazards' and 'disasters' are not synonymous: not every hazard leads inevitably to a disaster. Suggest that development workers need to have a clear understanding of how the impact of a hazard can lead to a disaster. Some programmes can also increase or decrease disaster risk.

3. Refer to the 1991/2 drought (or a similar recent emergency in the region). Ask participants to describe the impact of the drought on them personally.

4. Explore reasons why the event had a serious effect on them, or why it did not? Discuss the environmental, social, economic impact; who was most affected, and why?

5. Introduce the 'disaster crunch model' (also known as the 'pressure and release model') as an example of how particular conditions and causes give rise to 'the progression of vulnerability', and hence to potential disasters (see resources).

6. Take an example of a hazard common to Southern Africa, such as a drought, flood, storm, dysentery etc. Analyse it, using the 'crunch model' as a guideline. Explain the forces described in the model.

7. Encourage participants to ask questions of clarification.

8. Check for understanding of concepts by asking questions such as the following:
   - What is meant by 'limited access to power structures'?
   - What are examples of 'environmental degradation'?
   - What places 'livelihoods at risk'?

Participant Action

1. Ask participants to get into groups. Explain that they should now apply their knowledge to examples from their experience.
2. Give the following instruction:

- Select a recent crisis situation /disaster, such as the drought of 1991/2.
- Using the disaster crunch model as a guideline refer to the headings listed under progression of vulnerability.
- Analyse the crisis situation/disaster in terms of causes, pressures and conditions, and their relationship to specific trigger events.
- Prepare a brief presentation of your findings; use flipchart paper placed horizontally to reproduce your example like the 'disaster crunch model'.

You have 30 minutes to complete the task.

3. Monitor the progress and assist groups, where necessary.

Review and Discussion

1. Facilitate presentations in plenary.
   After each presentation allow a few minutes for questions of clarification and/or challenges to the presenters' analysis.

2. Initiate a plenary discussion on questions such as the following:
   ? What have we learnt from this process? What were the surprises?
   ? What were similarities and differences for different hazards?
   ? Were there common vulnerabilities across different hazards?
   ? How could we use an analysis of vulnerability (causes, pressures and conditions) as a warning system?
   ? Given an analysis of the present conditions in our country / area / region, what hazards are particularly threatening?

14. Ask participants to critically review the ‘crunch model’ as a diagram: how does it help them to better understand disasters?

15. Summarise the findings.

This activity should be followed by a more detailed vulnerability assessment procedure.

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THE PROGRESSION OF VULNERABILITY

Underlying causes
- Poverty
- Limited access to power structures
- Ideologies
- Economic systems
- Pre-conditioning factors

Dynamic pressures
- Lack of local institutions
- Education
- Training
- Appropriate skills
- Local markets
- Press freedom
- Public actions
- Macro-issues
- Expansion
- Urbanization
- Environmental degradation

Unsafe conditions
- Fragile local economy
- Livelihoods at risk
- Low income levels

Trigger events
- Earthquake
- High winds
- Flooding
- Volcanic eruption
- Landslide
- Drought
- War, civil conflict
- Technological accident

DISASTER

HAZARD + VULNERABILITY

DISCUSSION MODEL

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Which disaster model works for me?

Purpose
This activity aims to clarify the conceptual switch from relief to development. It asks participants to consider how they can get involved in disaster reduction.

Procedure
The session involves a number of different activities: input based on various diagramatic representations of the risk - hazard - disaster relationship; creation of a visual presentation of the relationship, and discussion.

Time
◆ 1½ - 2 hours

Materials
◆ copies of the slow and rapid onset disaster continuum diagrams for each participant, and on overhead projector slide (see resources)
◆ copies of the ‘Expand-Stretch’ model for each participant and on overhead projector slide (see resources)

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Process

Introduction

1. Outline the purpose and procedure of this activity.

2. Give a brief input based on the diagrams showing the phases of rapid and slow onset disasters. Explain the different phases (see resources).

3. Ask participants to illustrate each phase with examples of the type of activities normally undertaken in each phase.

4. Initiate a discussion around the merits of this diagram; ask questions such as the following:
   - Do you agree with the representation of disasters in a continuum of phases?
   - What are the implications of showing the phases in a cycle?

Participant Action

1. Ask participants to get into groups of four. Distribute flipchart and pens. Give the following instruction:

   — Develop and draw a model or diagram that shows how a progression of increased risk leads to disasters.

   — On the model, pinpoint moments when specific actions aimed at disaster reduction could be introduced.

   Prepare to present and explain it to the group.

   You have 20 minutes to develop the model.

2. Monitor the progress and assist where necessary.

Review and Discussion

1. Facilitate group report-backs: allow each group approximately 5 minutes to present and explain their model; encourage questions of clarification but stall specific contestation and discussion.
Introduction

1. Introduce and explain an alternative diagrammatic representation such as the 'contract-expand' model (see resources).

It is called the "contract/expand" model, because it assumes that the disaster management components of disaster prevention, mitigation, response and recovery can be carried out at all the times in a hazard prone community. However, the relative weighting of each component "contracts" or "expands" depending on the relationship between the hazard in the vulnerability of the community.

This model assumes the following:

i. That disasters occur when a hazard exceeds a community capacity to manage it (i.e., when its vulnerability to the hazard has increased)

ii. That all components of disaster reduction can be carried out concurrently, but with different relative emphases.

iii. That the relative weighting of the activities depend on relationship between the hazard and the vulnerability of the community-at-risk, and the technical or operational mandate of the organisations involved.
Review and Discussion

The aim of this discussion is not so much to develop a 'new', 'correct' model of the risk-hazard-disaster relationship. Rather, participants clarify their understanding of how disaster happens and how it can be prevented, by discussing and arguing different viewpoints.

1. Initiate and facilitate a discussion around the different diagrams:
   - What are the advantages / disadvantages of the different diagrams?
   - What do they show / fail to show?
   - How do they place different emphases on various type of interventions?
   - What are the different underlying attitudes to disaster interventions?

2. Ask participants to locate their own practice within the models. How does their work relate to long-term risk reduction interventions?

3. Summarise the session.

1. Figures taken from An Overview of Disaster Management (1992) UNDP / UNDRO Disaster Management Training Programme (pp 12-13)
DISCUSSION MODEL ONE

RAPID ONSET DISASTER MANAGEMENT CONTINUUM

SLOW ONSET DISASTER MANAGEMENT CONTINUUM

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DISCUSSION MODEL TWO

EXPAND-STRETCH MODEL

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What do we do in emergency preparedness and risk reduction?

Purpose

This activity builds on participants' knowledge of the different categories of disaster management and asks them to classify specific activities in terms of those categories. The task represents a shift from conceptual to more applied thinking. This activity is a useful tool for developing participants' awareness of the link between emergency response and risk reduction activities.

Procedure

Participants are asked to classify various activities into their respective disaster management categories. This enables them to analyse actions according to their intended effect within the disaster - development continuum.

Time

- 1 - 1½ hours

Materials

- individual cards describing specific disaster management activities, to be distributed to participants (see resources)
- individual cards with disaster management categories and definitions, to be arranged on the wall or floor (see resources)
Process

Introduction
1. Outline the purpose and procedure of the activity.
2. Distribute cards with disaster management activities amongst the participants.
3. Arrange cards with disaster management categories and definitions as suggested below; either on the floor or on a wall. Ensure ample space to place action cards underneath each term.

Disaster Reduction
includes all measures which reduce disaster-related losses of life, property or assets by either reducing the hazard or vulnerability of the elements at risk.

Disaster Management
includes all aspects of planning for and responding to disaster, it refers to the management of both the risks and the consequences of disasters.

Disaster Prevention
activities designed to provide permanent protection from disasters - or reduce the intensity/frequency of a hazardous event so that it does not become a disaster.

Disaster Mitigation
measures taken in advance of a disaster aimed at reducing its impact on society and the environment.

Disaster Preparedness
the ability to predict, respond to and cope with the effect of a disaster. Actions that assume an event will be disastrous and prepare people to react appropriately during it and following it.

Disaster Relief
Applies to those extraordinary measures required in search and rescue of survivors, as well as to meet basic needs for shelter, water, food and health care.

Recovery
the process undertaken by a disaster-affected community to fully restore itself to pre-disaster level of functioning.

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Participant Action

1. Ask participants to consider the activities described on their cards: which category of disaster management do they belong to?

2. Ask participants to place their cards underneath the appropriate category on the disaster management structure when they have made their decision. Some activities might apply to more than one category. If this is the case, a card can be handwritten and placed in the corresponding category.

Review and Discussion

1. When all cards have been placed review the structure, category by category.
   - Request participants to take turns in reading out first the definition of a category, and then the cards placed underneath the category.
   - Ask whether they are satisfied that activities have been placed correctly.
   - Discuss any contested categorising. If no consensus decision can be reached put the card aside for future reference and later consideration.
   - Check participants usage of terminology: do they have a clear understanding of concepts?
   - Encourage any examples that may clarify contested concepts, classification or activities.
2. Point out that some of the terms overlap, for example prevention and mitigation, and rehabilitation and reconstruction.

3. When all activities have been reviewed return to the contested ones and attempt to re-classify them.

4. Allow participants to produce duplicates of any activities that should appear in more than one category. This should encourage discussion around possible overlaps between mitigation and response strategies and activities.

5. Sum up the activity by asking participants to name specific things they have learnt in this process.

A useful way to follow up this activity is by asking participants to focus on a specific hazard: given this hazard what would be sample activities for each of the categories? Ask participants to write hazard related activities on cards and categorise them as before.
Suggested Solutions to the Categorisation of Activities

(those cards with an asterisk* could have been duplicated, and appear in more than one category)

Disaster Recovery and Rehabilitation

— Educating demobilised soldiers on their role in non-combat society*
— Seed distribution to food insecure families during drought
— Using drought resistant seed varieties in drought affected areas*
— Food for work projects in a drought (community based)*
— Food for work in a drought (public works schemes)*
— Subsidising the cost of seed and other inputs after a drought
— Drought resistant seeds distribution to food insecure families during drought*
— Reconstructing dwellings following a cyclone
— Reconstructing dwellings with resistant or easily rebuilt materials following a cyclone*
— Restoring community development activities
— Tracing family members separated in a flood or conflict emergency*
— Using flood resistant seed varieties in flood prone areas*
— Establishing community household granaries*
— Providing employment skills to demobilised soldiers

Disaster Mitigation

— Protecting deep and shallow wells in a cholera prone village*
— Planting trees to stabilise a deforested landslide-prone slope
— Conducting household education campaigns on safety with fires before winter months*
— Using drought resistant seed varieties in drought affected areas*
— Food for work projects in a drought (community based)*
— Food for work in a drought (public works schemes)*
— Reconstructing dwellings with resistant or easily rebuilt materials following a cyclone*
— Tracing family members separated in a flood or conflict emergency*
— Using flood resistant seed varieties in flood prone areas*
— Establishing community household granaries*
— Building up earth mounds on which to raise houses above a flood level*
— Drought resistant seeds distribution to food insecure families during drought*

Disaster Prevention

— Achieving 100% measles immunisation coverage in children under five years old following population displacement*
— Protecting deep and shallow wells in a cholera prone village*
Disaster Preparedness

- Intensified training in first aid before multi-party elections
- A radio announcement to evacuate from a flood-prone area
- Dissemination of information on international humanitarian law to rival military or tribal factions before a political rally
- Training and awareness-building on the risks of dysentery and cholera before the onset of the rainy season
- Tying bells on to ropes strung across a stream or river - upstream to alert people downstream of an impending flash flood
- Rainfall monitoring and reporting
- Prepositioning intravenous fluids, oral rehydration salts and disinfect in cholera prone areas before the rainy season
- Temporary evacuation to primary schools while waters flood subside
- Damage assessment after a violent storm has occurred*
- Drought resistant seeds distribution to food insecure families during drought*
- Food distribution*
- Conducting household education campaign on safety with fibres before winter months*

Disaster Relief

- Damage assessment after a violent storm has occurred*
- Food distribution*
## Disaster Management Activities

<table>
<thead>
<tr>
<th>Activity 1</th>
<th>Activity 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing employment skills to demobilised soldiers following conflict</td>
<td>Distributing seed to food insecure families during drought</td>
</tr>
<tr>
<td>Using drought resistant seed varieties in drought affected areas</td>
<td>Initiating community based food for work projects in a drought</td>
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<td>Implementing food for work public works schemes in a drought</td>
<td>Subsidising the cost of seed and other inputs after a drought</td>
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<tr>
<td>Conducting intensified training in first aid before multi party elections</td>
<td>Making a radio announcement regarding evacuation from a flood prone area</td>
</tr>
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</tr>
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<td>Tying bells on to ropes strung across a stream or river - up stream to</td>
<td>Monitoring and reporting rainfall</td>
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<td></td>
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<tr>
<td>Pre-positioning intravenous fluids, oral rehydration salts and disinfectant in cholera prone areas before the rainy season</td>
<td>Evacuating residents to primary schools while flood waters subside</td>
</tr>
</tbody>
</table>
Disaster Management Activities continued . . .

<table>
<thead>
<tr>
<th>Doing damage assessment after a violent storm has occurred</th>
<th>Distributing drought resistant seeds to food insecure families during drought</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributing food</td>
<td>Educating demobilised soldiers on their role in non-combat society</td>
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<tr>
<td>Reconstructing dwellings following a cyclone</td>
<td>Reconstructing dwellings with wind resistant or easily rebuilt materials following a cyclone</td>
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<td>Planting trees to stabilise a deforested landslide-prone slope</td>
<td>Conducting household education campaigns on safety with fires before winter months</td>
</tr>
</tbody>
</table>
Disaster Management Categories

**Disaster Reduction**

includes all measures which reduce
disaster-related losses of life, property
or assets by either reducing the hazard
or vulnerability of the elements at risk

**Disaster Mitigation**

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

**Disaster Management**

includes all aspects of planning for and
responding to disaster; it refers to the
management of both the risks and the
consequences of disasters

**Disaster Preparedness**

the ability to predict,
respond to and cope
with the effect of a
disaster. Actions that
assume an event will be
disastrous and prepare
people to react
appropriately during it
and following it

**Disaster Relief**

applies to those
extraordinary measures
required in search and
rescue of survivors, as
well as to meet basic
needs for shelter water,
food and health care

**Disaster Prevention**

activities designed to
provide permanent
protection from
disasters - or reduce
the intensity/frequency
of a hazardous event
so that it does not
become a disaster

**Recovery & Rehabilitation**

the process undertaken
by a disaster-affected
community to fully
restore itself to pre-
disaster level of
functioning