MULUNGUSHI UNIVERSITY

Pursuing the frontiers of knowledge

DISASTER MANAGEMENT TRAINING CENTRE

COMMUNITY-BASED DISASTER RISK REDUCTION/WASH

Training Manual

December 2010

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Preamble

This Training Manual for community-based actors is meant to introduce participants to the Disaster Risk Reduction (DRR) framework. The participants will gain some understanding of and will be in a position to implement community-based activities that will address their community's vulnerabilities to disasters. They will also be in a position to contribute to the search for a way to reduce the improper disposal of wastes and the promotion of Water and Sanitation Hygiene (WASH) in their community. Therefore, the purpose of this training is to enhance knowledge and skills to increase the capabilities of community-based actors address disaster management responsibilities effectively.

Target Group

The Training Manual is intended for training and capacity building of community based-actors involved in activities promoting DRR/WASH.

Training Objectives

This Training Manual aims at providing an overview of DRR/WASH and the basic skills necessary for implementing Community-based DRR/WASH.

Specific Learning Objectives

The participants attending this training should:

- Define Disaster Risk Reduction and WASH concepts and methodology
- Identify roles of various stakeholders in DRR/WASH activities
- Demonstrate a capacity to perform Community Risk Assessment
- Demonstrate planning skills for DRR/WASH
- Form a base for dissemination of DRR/WASH practice

Methodology

Adult learning is best achieved in an environment of experiential learning, participation and inquiry. The methodology for the training is based on:
- Presentations and discussions
- Supplementary handouts
- Audio-video presentations
- Simulations/ role plays
- Case Studies

Training Schedule

Unit	Day 1	Day 2
8h00- 10h30	**Session 1:** Team Building **Session 2:** Introduction Course objectives, expectations and anxieties **Session3:** Disasters & Development	**Session 9:** Urbanization & Disasters **Session10:** Environmental Health and DRR **Session 11:** Mainstreaming Gender & HIV/Aids in DRR/WASH
10h30-11h00	**T E A B R E A K**	
11h00-13h00	**Session 4:** Disaster Risk Reduction: Aims and Practices The Hyogo Frame For Action **Session 5**: Group work	**Session 12:** Community Based DRR/WASH **Session 13:** Community Risk Analysis **Sessions 14:** Group Exercise
13h00-14h00	**L U N C H B R E A K**	
14h00-15h30	**Session 6:** Climate Change and Environmental Disasters **Session 7:** Group work	**Sessions 15:** Group Exercise **Session 16:** Report back plenary
15h30-16h00	**T E A B R E A K**	
16h00-17h00	**Session 8:** Report back plenary	**Session 17:** Training Evaluation and Closing

1.0 Introduction

Disasters are often portrayed as acts of nature, or part of the natural order. Yet in many cases this is mostly far from reality. The major factors influencing disaster risks are:

- Human and social vulnerability
- Capacity to respond to or reduce the impact of natural hazards

Addressing the role disasters play in perpetuating the cycle of poverty and in undermining development is increasingly being recognized as a major global challenge that demands attention. Approximately 70% of recent disasters are weather-related and this proportion is likely to grow as climate change processes increase the unpredictability and intensity of weather events. *Disasters are classified as either natural or human-made.*

Natural disasters include floods, drought, and earthquakes while *human-made disasters include industrial accidents.* Therefore the need to learn and understand the impact disasters have on the livelihood is very important. A well informed community will make good decisions and prepare themselves before the disaster strikes.

The impact of disaster risk increases with increasing vulnerability to disasters and reduced existing coping capacities. Poverty, political instability and environmental degradation increase people's vulnerability to disasters. Children, women and older people face higher risk to disasters than men and youths. But there is much that governments, communities and aid agencies can do to prepare for emergencies and stop hazards turning into crises.

Measures to reduce the risk of disasters can save lives, property and money. It is widely recognized that recurrent disasters have a large hand in undermining the ability of communities, regions, nations and the global community itself to meet basic development goals. In addition, the intensity, and possibly the frequency, of natural disasters are likely to be exacerbated by climate change.

In light of these threats, DRR is central to meeting local and global development objectives and to adapting to climate change. The importance of DRR is recognized globally in the key agreements of the Hyogo Framework for Action (HFA).This is set of strategies put in place in order to reduce disaster risks.

2.0 Concepts and Terminologies

Disasters have been looked at as a normal occurrence of extra ordinary event and calamity which disrupt normal life and activities.

There has been a paradigm shift lately from the traditional way of Disaster Management to DRR putting emphasis on activities meant to address potential hazards and risks before disasters occur.

Governments and other institutions spend a lot of money on relief and reconstruction to help the affected people back to their daily living. It is important to note that these measures are just temporal and expensive.

Therefore, the DRR approach is a sustainable approach to avoid the adverse impact of disasters on the community. It is an approach which puts emphasis on prevention, preparedness and reducing the risk before it becomes a disaster.

In order to understand fully the process of DRR, it is necessary to define some basic concepts and terminologies used.

The United Nations International Strategy for Disaster Reduction (UNISDR) Terminology on Disaster Risk Reduction aims to promote common understanding and common usage of disaster risk reduction concepts. The 2009 UNISDR Terminology includes words that are central to the contemporary understanding and evolving practice of DRR.

Box 1 below gives a list of basic concepts and terminologies used in DRR as defined by the UNISDR.

Box 1: Basic Concepts & Terminologies

Capacity*: the ability of the community to use resources to reduce the risk of loss of a disaster.*

Coping capacity*:* The ability of people, organizations and systems, using available skills and resources, to face and manage adverse conditions, emergencies or disasters.

Disaster Response*:* Activities that are implemented after a disaster has struck.

Disaster Risk Management: 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.

Disaster Risk Reduction: The concept and practice of reducing disaster risks through systematic efforts to analyze and manage the causal factors of disasters, including through reduced exposure to hazards, lessened vulnerability of people and property, wise management of land and the environment, and improved preparedness for adverse events.

Disaster Risk: The potential disaster losses, in lives, health status, livelihoods, assets and services, which could occur to a particular community or society over some specified future time period.

Disaster: A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.

Exposure: People, property, systems, or other elements present in hazard zones that are thereby subject to potential losses.

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.

Resilience: The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.

Risk Assessment: A methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that together could potentially harm exposed people, property, services, livelihoods and the environment on which they depend.

Vulnerability: The characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard.

3.0 Disasters and Development

There is a strong relationship between disasters and development. Disasters can reverse developmental gains laying to waste greater investment and can also slow human progress especially in developing nations' context. Society often associates disasters as events that happen, then we go back to normal life, this is no longer possible due to the high cost of disasters on human development. Basic themes in this relationship are that:

- Disasters set back development programming and development initiatives
- Rebuilding after a disaster can provide new prospects for development programs
- Development programs can increase an area's susceptibility to disasters
- Development programs can be designed to decrease the susceptibility to disasters and their negative consequences

Disasters disrupt development initiatives in several ways:

- Loss of resources
- Destruction of property, life and crops
- Interruption of developmental programs
- Impact on investment climate
- Impact on the non-formal sector
- Political instability

4.0 The Hyogo Framework for Action (HFA) 2005 -2015

The Hyogo Framework for Action (HFA) is the key instrument for implementing disaster risk reduction, adopted by the Member States of the United Nations. Its overarching goal is to build resilience of nations and communities to disasters, by achieving substantive reduction of disaster losses by 2015 – in lives, and in the social, economic, and environmental assets of communities and countries. The HFA gives five areas of priorities for action, guiding principles and practical means for achieving disaster resilience for vulnerable communities in the context of sustainable development.

Since the adoption of the HFA, many global, regional, national and local efforts have tackled disaster risk reduction more systematically, although a lot remains to be done. The United Nations has called for the vigorous implementation of HFA. It has encouraged Member States to establish

multi-sectoral national platforms to coordinate DRR in countries. Many regional bodies have formulated strategies at regional scale for disaster risk reduction in line with the HFA, in the Andean region, Central America, the Caribbean, Asia, Pacific, Africa and Europe.

More than 100 Governments have designated official focal points for the follow-up and the implementation of the HFA. In Zambia the Disaster Management and Mitigation Unit (DMMU) under the Vice-President's Office is the focal point for implementation of DRR activities. Some governments have taken actions to mobilize political commitment and established centres to promote regional cooperation in disaster risk reduction.

HFA Priorities for Action

1. Make disaster risk reduction a priority.
   - Ensuring that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.

2. Know the Risks and Take Action.
   - Identifying, assessing, and monitoring disaster risks – and enhancing early warning.

3. Build understanding and awareness
   - Using knowledge, innovation, and education to build a culture of safety and resilience at all levels.

4. Reduce risks
   - Reducing the underlying risk factors.

5. Be prepared and ready to act.
   - Strengthening disaster preparedness for effective response at all levels.

Task 1: Seasonal Calendar

Seasonal Calendar

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Flooding												

Using the Seasonal Calendar tool show different *events*, *experiences*, *activities* and *conditions* throughout the annual cycle in your community.

1. **Identify periods of stress, hazards, disease, hunger, debt, vulnerability etc.**
2. **Identify gender-specific divisions of labour in times of disaster and during normal times.**

Task 2: Community Time Line – Historical Profile

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a) Discuss the historical profile of your community by asking these questions:

1. **What happened in the past?**
2. **Major hazards and their effects**
3. **Changes in land use**
4. **Changes in food security and nutrition**
5. **Changes in administration and social networks and organizations**
6. **Major political events**

b) Life histories: can someone recount a detailed account of their life or a specific issue from a historical perspective?

c) History tracing: begin with current experiences and going back in time.

5.0 Climate Change and Environmental Disasters

The threat of climate change is one of the most pressing issues facing humanity today. In order to increase resilience and prepare for vulnerabilities associated with climate change, society will look to science to provide answers. However, the science of climate change is complex and multi-disciplinary. Many aspects of climate-change research, particularly dealing with adaptation and impacts, require a much broader perspective.

Climate-related stresses and shocks already figure prominently in the lives of many of the world's people and particularly so in the lives of the poor. Events such as droughts, floods and storms are often terrible experiences for those affected. They cause great loss of life, destroy countless livelihoods and leave millions of people devastated.

Climate change is expected to exacerbate the risks of disasters, not only from more frequent and intense hazard events but also through greater vulnerability to the existing hazards. More frequent and intense storms and floods and long-lasting droughts can erode existing community coping capacity to prepare, respond and rebuild after successive hazard events.

The other adverse impacts of climate change, for example on public health, ecosystems, food security, migration and on the situation of specially vulnerable groups such as children, the elderly and women, will increase the vulnerability of communities to natural hazards of all types. Any increase in disasters, whether large or small, will threaten development gains and hinder the implementation of the Millennium Development Goals.

During the past 2 decades, the number of recorded disasters has doubled from approximately 200 to more than 400 per year. Disasters caused by floods are more frequent (from about 50 in 1985 to more than 200 in 2005) and damage larger areas than they did twenty years ago. Current trends indicate a future where extreme climate variability and its consequences are likely to become the norm.

6.0 Adaptation to Climate Change

Disaster hazards associated with climate change extend beyond flooding to include sea-level rise, additional storminess, landslides, urban water scarcity, temperature extremes, droughts, and indirect impacts through changes in disease vector ecology.

Disaster risk and the adverse impacts of natural hazards can be reduced by monitoring, systematically analyzing and managing the causes of disasters, including by avoiding hazards, reducing social and economic vulnerability, and improving preparedness for response to adverse hazard events.

In adapting to climate change impacts, effective early warning systems are important. These involve four elements:

- Risk knowledge.
- Monitoring and warning service.
- Dissemination and communication, and;
- Response capability.

Early warning systems are highly effective in saving lives and livelihoods. Although all four elements of the system need to be strengthened in many countries, it is the communication of warnings and people's readiness to act that usually fails in disasters.

Sector-specific risk reduction plan and strategies to reduce disaster risk need to be integrated in the plans and developmental programmes. Land-use planning, the locating of critical infrastructure, the management of natural resources, the protection of key assets — all should ensure that risk is identified and reduced at all stages from planning through to implementation.

Effective mechanisms should be developed to address weather and climate-sensitive sectors such as water supply, agriculture, food security, energy, transportation, and public health in order to Deal with events and conditions such as seasonal rainfall deficiencies and heat waves.

Risk arising from climatic hazards can be addressed by preventative measures, such as avoiding settlement in floodplains and building strong buildings; monitoring, early warning and response measures to manage extreme events; and risk transfer, including insurance, to cope with unavoidable impacts.

Climate-related stresses and disasters are also likely to add to the scope, scale and complexity of human mobility. When coupled with effects on natural resources availability and allocations, the risk of conflict is also likely to increase, particularly in already fragile settings.

7.0 Urbanization, Environmental Health and Disasters

More than half of the world's population and the majority of its capital assets are found in urban settlements. The rapid population growth of cities has exacerbated this trend and increased the stakes. But population growth is not the principal underlying causal factor. It is rather, the increasing pace of urbanization that has finally forced us to recognize that established practices and dominant values for planning and development in cities have led to an accumulation of inequality, marginalization and disaster risk for a large proportion of people over time.

Urban influence is also felt far beyond administrative boundaries through migration and the impact of urban demands on rural markets and livelihoods – opening opportunities but also challenging established cultures and values including those that shape people's relationships with nature and the environment. In consequence, there are few places and economic systems that are not touched by urbanization. Africa is no exception.

Today cities are regarded as hotspots of disaster risk. Risk comes from increasing poverty and inequality and failures in governance, high population density, crowded living conditions and the siting of residential areas close to hazardous industry or in places exposed to natural hazards.

Africa is the world's most rapidly urbanizing continent. Most of the urban growth is unplanned and driven by natural growth among the already marginalized urban population and in-migration of the poor or displaced. In cities, climate change adds to existing disaster hazard burdens associated with natural hazards such as flooding, to pollution and industrial hazards. Wider failures in proper solid waste management regimes and environmental health lead to endemic and epidemics of communicable diseases such as malaria, dysentery and cholera.

All these forms of environmental health hazards interact with each other to produce compound and hybrid hazards. They also serve to undermine the coping capacity as people's health and livelihood resources are worn down by continuous exposure. As hazardousness grows so too does vulnerability.

As disasters cannot be eliminated, coping with the consequences is reality for a large part of the world population. In the last decade of the 20th century almost 2 billion people – one-third of humanity – were affected by natural disasters, 86% of them by floods and droughts. Each disaster can pose its unique set of threats. Flooding increases the ever-present health threat from inadequate drinking-water and sanitation systems, as water supplies can become contaminated by lack of sanitary facilities as well as

household or industrial waste. These factors all aggravate the situation for vulnerable people, and the largest sufferings originate from common illnesses, such as diarrhoea, which is made life-threatening by crisis conditions.

The incorporation of disaster scenarios and aspects in planning of infrastructure and institutional elements of water supply and sanitation (WASH) systems is an important step towards disaster risk mainstreaming. While correct maintenance of systems is another important point to increase sustainability and reduce the vulnerability in an event of a disaster.

In particular the WASH aspect centres on consideration of the following:

1. **Water supply and safety**
   - Sources of water – rivers, lakes, dams, boreholes, springs, wells and taps

   - Category of diseases due to contamination of water –
     i. Water-washed diseases. e.g. Dysentery, Diarrhoea
     ii. Water-borne diseases. e.g. Cholera, dysentery, Bilharzia, Typhoid
     iii. Water-related diseases. e.g. Malaria, Scabies, Poliomyelitis

   - Collection of water
     i. Open buckets
     ii. Plastic 20 or 5 litres containers
     iii. Drums

   - Storage of water at home: Clean water can be contaminated again if it is not properly or safely stored. Therefore:-
     i. Water should be stored in a clean container with a small opening
     ii. It should be stored off the ground
     iii. Drinking and cooking water should be stored separately from water used for other purposes
     iv. Dirty cups should not be dipped into the container

   - Water safety or treatment - Water can be made safe at home by:-
     i. Boiling
     ii. Chlorination
     iii. Two - pot system
     iv. Direct sunlight

2. Hygiene education
- Hand washing methods (asking the 'how' of washing hands)
    i. Pouring using a cup or a jar
    ii. Direct from a tap
    iii. Washing with soap or ash

- Hand washing times (asking the 'when' of washing hands)
    i. After using the toilet or cleaning up a child
    ii. Before handling any food
    iii. Before and after eating food
    iv. Before handling water containers

3. Sanitation
- Excreta disposal methods include using the bush, ordinary pit latrine, VIP latrines, the cat method and flush toilets. Diseases due to poor sanitation include worms such as tape worms, hook worms, round worms; dysentery, cholera and diarrhoea

- Refuse disposal – refuse types include household, industrial, field, office, street and street refuse. It should be disposed of by:
    i. Digging a pit about 1½ meters deep and throw in the rubbish
    ii. Throwing rubbish in designated places
    iii. If it is fresh refuse thrown in the pit should be to covered with thin layer of soil to avoid fly attraction and some smell nuisance
    iv. Covering the pit completely when it is full

- Faecal-Oral Transmission Routes

The Five 'F's routes:
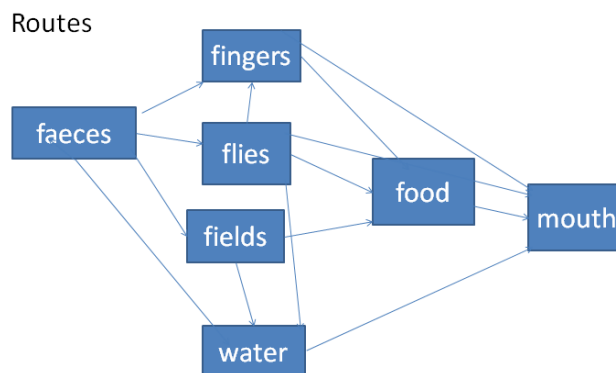
For achieving a positive impact, the Hyogo Framework urges inter-institutional cooperation on WASH issues. A national-level review of existing knowledge and gaps related to DRR is required as it relates to WASH issues. This will create awareness and increased political commitment to integrate these issues into the water and sanitation sector. Thus the sector's needs and priorities for DRR have to be identified.

The three top priorities in emergency response are the provision of sufficient quantities of safe water, arrangement of basic sanitation and promotion of good hygiene behaviours. Responses range from provision of clean drinking-water or purification mechanisms, construction of temporary sanitation infrastructure and conducting hygiene training. Response programmes of most relief and humanitarian agencies range from rapid and limited interventions in acute emergencies to comprehensive long-term interventions in complex emergencies.

8.0 Community-Based DRR

For effective implementation of DRR strategies, there has to be need to assess the capacity of the community in terms of vulnerability and capacity. Risk assessment includes an evaluation of all the elements that are relevant to an understanding of potential hazards and their impact on the community and environment. Assessment provides information on which decisions can be made. People become victims of a disaster because they do not have the capacity to respond to a disaster or become vulnerable. Some vulnerability is removable or reducible. For example, people can be excluded from living in a flood prone area to safer areas may no longer be exposed to floods. Other vulnerabilities are more difficult to reduce. Effective reduction will often be a combination of measures but those mostly likely to succeed will usually seek to attack the underlying causes.

Risk analysis is an essential input for proper decision making in development strategies, plans and projects. It may be displayed graphically in the form of Hazard Mapping. Assessment is done to help decision makers to decide on how to respond to disaster situation Assessment provides information on which decisions will be made.

Assessment may be done to assess:

- Possibility of an emergency to occur again in future
- Assess requirements for more information required for an impending emergency.
- Establish the resources available and possibilities for facilitating and expediting longer-term recovery and development.
- Assess crucial management tasks which contribute directly to effective decision-making, planning and control of the organized response.

Identify the Hazards

Disasters result from the impact of a hazard. Therefore, the first step is to identify the hazards. Hazard assessment is concerned with the properties of the hazard itself, for example floods, earthquake, famine, chemical explosions, industrial fire, acid spill, but not its effects on the community and environment which are covered in vulnerability analysis.

To turn risk assessment into a useful planning tool, accurate information must be gathered from numerous and diverse sources. From these data a fairly complete picture may be built up of the prevailing risks expressed in terms of probabilities and severity. The sequence is as follows:

1. Assess the Hazards

- Exposure to hazards/risks
- Types of hazards and risks
- Frequency of disasters

2. Assess Vulnerabilities

- Physical, social and economic
- Population densities
- Vulnerable groups
- Location of population groups in relation to the hazard
- Location of vital facilities, for example hospitals in relation to the hazard
- Economic effects – direct, secondary, fiscal, monetary
- Collect data- physical infrastructure, environment, demography, culture, economic
- Develop vulnerability profile or maps

3.   Assess manageability

- Awareness
- Laws and regulations
- Prevention and mitigation measures
- Prediction and warnings
- Preparedness
- Response capability
- Public, government and NGO participation in management

4. Quantify Risk

- Tabulate data on hazards, vulnerabilities and manageability
- Apply scoring
- Apply weighting
- Determine final scores

8.0 Reducing vulnerability and building resilience

Vulnerabilities are generally not just the given circumstances, but rather unsafe conditions which have developed by human actions or inactions. It is essential to be aware of the root causes of these vulnerabilities in order to mitigate whenever possible the underlying causes and not merely the consequences. The goal of reducing vulnerability is to reduce the susceptibility of people, livelihoods and infrastructure to floods. Many of such

root causes can be found in aspects of poverty, this is why sustainable vulnerability reduction will in many cities be closely linked to measures of poverty reduction. Moreover, the factors that render people vulnerable to floods are often the same, which cause vulnerability to other hazards. Measures for vulnerability reduction, therefore, should be addressed through a multi-hazard approach. One possibility to structure the numerous facets of vulnerability is to distinguish between physical, constitutional-economic and informational-motivational aspects of vulnerability.

Mapping in Risk Reduction plays an important role, communities should be able to take inventory of the background of their community.
 The following risk analysis activities can be done:

- Hazard/Risk Mapping
- Capacity Mapping
- Transect walk
- Seasonal Calendar
- Historical Profile

The effective DRR Practice must involve the following thematic areas of good practice:

a) social awareness and empowerment e.g. through street drama
b) Bottom up DRR planning
c) The establishment of emergency and maintenance funds
d) The innovative development of information
e) Information, Education and Communication (IEC) material
f) Search and Rescue (S&R)
g) Local resource-based bio-engineering interventions
h) Cross-cutting issues (gender and social inclusion)
i) Capacity building, school safety and young rescuer clubs
j) Community-based Early Warning Systems (EWS).

Task 3: Hazard/Risk Mapping

1. **Identify all Hazards/Risks in your community**
2. **When do these hazards/risks pose problems?**
3. **Who is vulnerable to these hazards/risks?**
4. **Is the community able to cope with the hazards/risks? If yes, how? If no, why not?**
5. **Can you quantify the hazards/risks?**

Task 4: Community Disaster Preparedness

How vulnerable are you and your household?

In your opinion is your community prone to disaster? No ☐ Yes ☐

If yes, to which types of disasters is your community exposed?

Floods ☐ Fires ☐ Strong winds ☐ Droughts ☐ Diseases ☐

Is your house

☐ Built to withstand any of the disasters listed above

☐ Insured against losses due to disasters

☐ Properly maintained to minimize losses due to disasters

Is your house

☐ Close to a dambo ☐ In a low lying area ☐ Near steep slopes ☐ Close to a stream/river

Are you or someone in your household or neighbourhood

Elderly ☐ Pregnant ☐ Disabled ☐ Ill ☐ Mentally handicapped ☐ 0-5 years old ☐

If so, is someone identified to take care of them in case of disaster?

No ☐ Yes ☐ if Yes, give one or two names

Does the community in which you live have an emergency management committee?
No ☐ Yes ☐

Do you and your family have a plan of what to do in the event of a disaster?

No ☐ Yes ☐

If yes, how would you receive a warning about an impending disaster?

Radio ☐ Television ☐ Newspaper ☐

Do you know what to do if there is a flood/cholera warning?
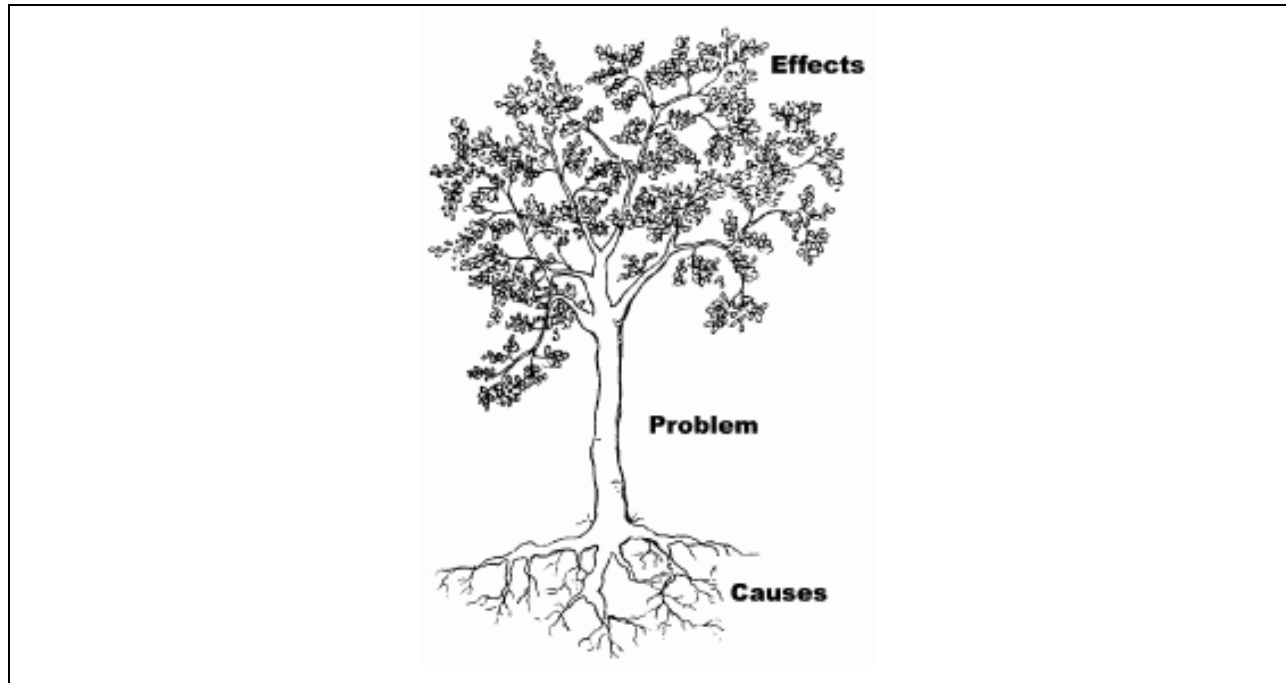
No ☐ Yes ☐

Are you aware of what to do to survive various disasters? No ☐ Yes ☐

What can you do to reduce the vulnerability of your household and community?

Task 5: Problem Analysis

Using flip charts apply the *Problem Tree* Analysis Tool (where the *roots* of the tree represent the causes of the main problem, the *trunk* represents the main problem and the *branches* represent the effects of the main problem) to your current situation in your community regarding hazards and risks you are exposed to.

TASK 6: Vulnerability Analysis:

How vulnerable are you in your community?
1. **Using the table below evaluate the main vulnerabilities in your community.**
2. **What actions can you take to prevent them?**

Household

Zone ☐   **Adults** ☐   **Children** ☐   **Male** ☐   **Female** ☐

Risk	Strong storms	Fire	Earth tremors	Floods	Cholera
Houses					
Streets					
Drainage					
Trees					
Electricity power lines					
Contingency plans					
Evacuation routes					
Telephone access					
Information flow					
Frequency of events in 10 years					
Magnitude of events					

9.0 Mainstreaming Gender & HIV/Aids in DRR

By definition, gender refers to the opportunities, roles, responsibilities, relationships and personal identities a particular society prescribes as proper for men and women. These attributes are socially constructed and learned both individually and collectively. In looking at Disaster Risk Reduction, it is important to look at gender issues.

Only a gender- and socially-inclusive approach guaranteeing equal participation by men, women and marginalized groups can mitigate hazards, reduce social vulnerability and build disaster-resilient communities. DRR interventions can succeed only when the capacity, knowledge and skills of all groups are recognized and utilized at each stage of the disaster management cycle. Mainstreaming of gender in DRR should be based on strengthening the disaster preparedness and response capacity of whole communities but gave special attention to the participation of women and socially-marginalized groups.

There is need to foster gender and HIV/AIDS and social inclusion is a community empowerment process that can change the mindset of communities as well as of important stakeholders. This could help to form were inclusive and representative of a wide variety of occupations and positions these core decision-making groups took the lead in identifying and planning various DRR initiatives and in mobilizing community.

Why women in DRR?

Women carry biological, emotional and economic responsibilities associated with their roles of mother, wife, nurturer, provider, and community spokespersons or representatives. Women play a key role in maintaining the family unit, keeping ties with community structures, obtaining access to assistance and entitlements, and meeting basic family needs. e.g. in case of floods, women are preoccupied with the responsibility of ensuring that all the family members are safe in terms of food and other requirements at the expense of their own safety .

Women are often more vulnerable for a variety of reasons. In many societies:

- Do not have the same socio-economic standing as men, both in terms of their ability to gainfully provide for their families and access to necessary resources.

- Have considerably less decision-making power and control over theirs or their children's lives.
- Have a special role in taking care of the sick.
- In developing countries it is more likely that women are poor, and subsequently vulnerable to the impacts of natural-physical hazards.
- Typically lack political influence due to inequality, marginalization and disempowerment.

Gender and Social Inclusion

In many countries, Zambia inclusive, the majority of women and socially-marginalized groups, including people with disabilities (PWDs), have comparatively less access to educational resources and income-generating opportunities but shoulder heavier economic and social burdens, they are disproportionately vulnerable to the impacts disasters. Only a gender- and socially-inclusive approach guaranteeing equal participation by men, women and marginalized groups can mitigate hazards, reduce social vulnerability and build disaster-resilient communities. Women and socially-marginalized groups need more exposure to DRR initiatives through cross visits and interactions with other communities.

It should be recognized that relief aid may have bearings on the productive activities of women and men and their potential to earn incomes, and implications on their possibilities to participate in community activities and decision-making. Full community involvement, including women's active participation, improves the efficacy of prevention, relief, reconstruction and transformation efforts.

Lessons learned about mainstreaming gender in DRR reveal that interventions and life saving strategies are made more efficient and timely when gender differences and inter-dependencies have been properly understood and addressed. A gender approach can assist in the understanding and profiling of vulnerable groups, in channeling resources to those most in need, and in the mobilization of the capacities of a significant proportion of the population that is often under-estimated.

10.0 Community Disaster Plan

A community- level disaster plan helps to consolidate the community's efforts to prepare for, respond to and recover from hazards. The plan provides guidelines for operations and clarifies roles and responsibilities before, during and after disasters happen. A disaster plan links preparedness, mitigation and rehabilitation efforts with short term and long term community development initiatives.
Based on the results of the hazard, vulnerability and capacity assessment, the community should be able to develop a disaster plan.

The plan should contain the following elements:

1. List of the most frequent hazards
2. Identification of pre, during and post disaster community requirement to vulnerabilities.
3. Identification of available resources and capacities the community can build on or has to mobilize from outside (boats, vehicles, communication equipment, evacuation site, food etc.)
4. The organization structure of the community (Community Based Teams, if any) roles and responsibilities of the leaders and communities.
5. Policies , decision- making mechanisms and operational guidelines
6. warning systems
7. Evacuation Protocols and routes
8. Evacuation Centre management Plan
9. Mitigation measures such as reinforcement of houses, improving drainage, additional maintenance on footbridges, or crop diversification

The Community Based Disaster Inventory should contain the following items:

1. Database of houses, buildings and construction types
2. Time table of activities to implement the plan or schedules to conduct drills to test the efficiency and effectiveness of the plan
3. Master list of community members (names, family composition, age and gender)
4. List of volunteer teams
5. Hazard, vulnerability and capacity Assessment summary plus the hazard map.
6. Directory of key – people, NGOs, local officials, church groups that can be contacted.
7. Organizational functions including functions and responsibilities of all committees.

TASK 7: Community Disaster Plan

Based on the results of the hazard/risk and vulnerability assessment develop as Disaster Plan. Elements of the plan should include the following elements:

1) **Most frequent hazards**
2) **Community requirements to address vulnerabilities pre, during and post disaster**
3) **Identification of available resources and capacities in the community or to be mobilized from outside**
4) **Community-based teams if any**
5) **Roles and responsibilities of leaders and committees**
6) **Policies and operational guidelines**
7) **Warning systems**
8) **Evacuation protocols and routes**
9) **Evacuation centre management plan**
10) **Mitigation measures such as reinforcement of houses, improving drainage etc.**

11.0 Community Early Warning and Information

Early Warning Systems (EWSs) reduce vulnerability by providing individuals and communities with the information they need to act in a timely and appropriate manner to avoid flood-related risks. Formed EWS sub-committees in each community to provide accurate information build the capacity of the committee members to understand the significance of river and rainfall levels. Put in place communication equipment_ Used gauges to measure river and rainfall levels and record their trend Installed wooden posts with yellow (warning—get ready) and red (danger—need to evacuate) bands along riverbanks. Used local FM radio broadcasts to disseminate warnings Prepare evacuation plans incorporating early warning and Perform simulations

A complete and effective early warning system comprise of four elements:-

> a) Risk Knowledge
> b) Monitoring and warning service
> c) Dissemination and communication
> d) Response capability

a) **Risk Knowledge:** Systematically collect data and undertake risk assessments by asking:

- Are the hazards and the vulnerabilities well known?
- What are the patterns and trends in these factors?
- Are risks maps and data widely available?

b) *Monitoring and warning service:*

- Develop hazard monitoring and early warning services.

Questions
- Are the right parameters being monitored?
- Is there a sound scientific basis for making forecasts?
- Can accurate and timely warnings be generated?

c) *Dissemination and communication:* Communicate risk information and early warnings by asking:

- Do warnings reach all those at risk?
- Are the risks and the warnings understood?
- Is the warning information clear and useable?

d) Response capability: Build national and community response capabilities by asking:

- Are the response plans up to date and tested?
- Are local capacities and knowledge made use of?
- Are people prepared and ready to react to warnings?

In order to have effective implementation of the early warning , the major players concerned with the different elements must meet regularly to ensure they understand all the other components and what other parties need from them. Risk scenarios are constructed and reviewed. Specific responsibilities throughout the chain must be agreed and implemented. Past events are studied and improvements are made to early warning system. Manuals and procedures are agreed and published. Communities are consulted and information is disseminated. Operational procedures such as evacuations are practiced and tested. Behind all these activities lies a solid base of [political support, laws and regulations, institutional responsibility and trained people. Early warning systems are established and supported as a matter of policy

TASK 8: Closing Circle

Based on what you have experienced during the last two days, ask yourself:

Where do I want my community to go from here?

What future do I see for my community?

How can I make a difference?

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