

MODULE 3 BALANCE

DISASTER RISK MANAGEMENT

- The systematic process of using administrative directives, organisations, 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 is called Disaster Risk Management.
- Disaster risk management ultimately aims to decrease risk by reducing exposure to hazard, lessen vulnerabilities and increase capacity, and hence build resilience to disaster. When disaster risks are assessed, the next step is to consider a wide range of options available to prevent the disaster from occurring, protect people, their assets, and the environment, in the event that it occurs. The knowledge gained from the assessment allows individuals and communities to anticipate the types of disaster that are likely to affect them, and to think of ways to reduce the impact, or prevent it altogether.
- Disaster management functions are generally consisting of four stages of action.
- The four stages or phases widely accepted are mitigation, preparedness, response and recovery.
- Mitigation and preparedness are phases prior to the occurrence of a disaster. Response and recovery are post disaster phases.

Disaster Management Cycle

- Disaster management is a continuous and integrated process. It involves planning, organising, coordinating and implementing, and evaluating actions which are required for:
 - Preventing threat to the community due to any emergency or disaster
 - Mitigation or risk reduction from any likely disaster or its consequences
 - Capacity building, including research and knowledge management, to reduce vulnerability
 - Preparedness of individuals and communities to cope with any disaster
 - Immediate response to any threatening situation or disaster

- Assessing the severity and consequent effects of any disaster
- Undertaking evacuation, rescue and relief

Measures for Disaster Risk Reduction

PREVENTION

- Disaster Prevention is defined as those activities taken to prevent a natural phenomenon or potential hazard from having harmful effects on either people or economic assets. Broadly, disaster prevention refers to measures taken to eliminate the root causes that make people vulnerable to disaster

The Basis of Disaster Prevention

- For disaster prevention to be successful, a priori planning is required. Planning of prevention hinges on two (2) issues:
 - hazard identification (identifying the actual threats facing a community) and
 - vulnerability assessment (evaluating the risk and capacity of a community to handle the consequences of the disaster).
- Once these issues are put in order of priority, emergency managers can determine the appropriate prevention strategies.
- Primary prevention is to reduce, avert or avoid the risk of the event occurring, by getting rid of the hazard or vulnerability, e.g. to avoid overcrowding, deforestation, choked drainage and to provide services.
- Secondary prevention means to recognise promptly the event and to reduce its effects, e.g. by staying alert to possible displacements of population; by being ready to provide immunisation, food, clean water, sanitation and health care to the affected population

MITIGATION

- Mitigation refers to all the measures taken to reduce the risk from disasters.
- This can be done through many actions that are aimed at increasing the capacity and resilience of the individuals and community.
- A number of steps like hazard mapping, vulnerability analysis, building codes for structural mitigation,

alternative economic models to prevent economic vulnerability, etc. are required.

- Personal mitigation is a key to national preparedness. Individuals and families are trained to avoid unnecessary risks.

- The objectives of mitigation are to:
 - Reduce the risk due to natural and man-made disasters
 - Take steps like hazard mapping and vulnerability analysis for risk management
 - Prepare and enforce structural mitigation measures like building regulations and their implementation
 - Reduce risk by exercising control over development
 - Help vulnerable populations putting in place measures for crop planning, urban planning and land use regulations.

PREPARDNESS

- Disaster preparedness encompasses the knowledge and capacities developed by governments, professional response and recovery organisations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions
- Preparedness is the second phase of the disaster management cycle.
- This basically indicates the measures required for facing disasters that are likely to occur in the region.
- If mitigation measures as outlined earlier are taken, the community is better prepared to cope with disasters.

• The objectives of preparedness are to:

1. Ensure public awareness and preparedness for disasters
1. Prepare and be ready to implement a disaster management plan
2. Ensure standard procedures for evacuation and immediate relief
3. Prepare sheltering plans and ensure physical availability of shelters
4. Have plans for warehousing of relief materials and logistics of operation

5. Ensure availability of healthcare services by identifying teams, and availability of medicines and other essential materials

- Disaster preparedness can be studied under three specific categories:

- 1) Target-Oriented Preparedness: Preparedness plans may be target specific, for instance, we may require different types of planning for the vulnerable groups of women, children, elderly and disabled.
- 2) Task-Oriented Preparedness: Specific groups jointly develop activities based on one of the community’s plans to evaluate the community’s capability to activate the preparedness plan in a real emergency. Eventually, these tasks enable the development of plan revisions, employee training and material resources to support readiness.
- 3) Disaster-Oriented Preparedness: This addresses the likelihood of occurrence of a specific disaster. Emphasis is placed on structural and non-structural mechanisms

RESPONSE

- Response is the stage immediately after a disaster
- The objectives of the response phase are to:
 - 1) provide immediate relief to reduce the suffering of the affected people
 - 2) Conduct search operations and rescue those stranded
 - 3) Provide food, water and accommodation in temporary shelters to displaced people
 - 4) Provide medical services as may be needed to people injured
 - 5) Take measures to prevent unhygienic conditions that can cause diseases, and their spread.
- Disaster response is aimed at providing immediate assistance to maintain life, improve health and support the morale of the affected population.
- It is focused at meeting the basic needs of the people until more permanent and sustainable solutions can be found.
- Disaster response depends on the adequacy of preparedness prior to the disaster, considering the scope of responses required.
- Disaster response preparedness are the pre-disaster activities that are undertaken to minimise loss of life, injury and property damage in a disaster, and to ensure that rescue, relief, rehabilitation and other services can be provided following a disaster.

- Preparedness for the first and immediate response is referred to as “emergency preparedness”

Factors that Determine the Nature of Disaster Response

- Disaster response is determined by the nature of disaster event which is mostly characterised by:

1) ***The type of disaster***: Disaster manifests in many forms, its onset may provide long warning, short warning, or no warning at all. The relative anticipation of the disaster event thus, would influence the effectiveness of activating preparedness plans, mobilisation, and application or response effort.

2) The ability to take pre-impact actions

Responses to disaster are operationalized in three main phases namely the “pre-, during and post-disaster” situation. Disaster early warning systems may provide timely warnings for anticipating impending disaster. Pre-impact responses (such as evacuation, shelter, and other protective measures) may be carried out if time and conditions are favourable.

3) ***The severity and magnitude of disaster*** The severity and size of the problem determines the response required. Particular effects could be seen in the ability of responses to cope with the problem; the urgency of response action and the priorities which are applied in terms of the scale of potential effects of no appropriate response as well as the requirements for external assistance.

4) ***The capability of sustained operations*** The capability of sustained operation is an essential ingredient of effective response. This is influenced by factors such as resource capability, management capability, community self-reliance, and availability of international assistance. It is important that these issues are clearly addressed in preparedness planning and response action plans.

5) Identification of likely response requirements

Knowing the likely response required to address specific disaster is important and ought to be identified in the preparedness planning stage of the disaster management cycle.

Requirement for Effective Response Information and resources are two (2) essential requirements for effective response without which plans and efforts at responding will not yield the anticipated results.

Information

- An early warning system provides vital information for effective response operation despite the unpredictability of some disaster events.
- An effective warning system must be robust to transmit warnings as early as practicable.
- Information gained from these systems could help in the planning and decision-making as well as inform the general public.
- Resources form an essential component of disaster response. The need for disaster management organisations to be resource ready cannot be over emphasised considering the untimely occurrence of disasters, which most often is on short notice.
- The ability to mobilise the needed resources on short notice is most often hampered by many factors. Its effect on systems gives little room for procrastination of actions.
- Disaster management requires a carefully drawn response plan which is often prepared in anticipation of emergency and activated in times of urgency.
- The response plan as a component of the disaster management plan includes ways of managing human and financial resources, response to supplies availability and communication procedures.
- This involves identifying, strengthening, and organising resources and capacities for timely and effective response to a potential disaster.

Disaster Response Planning

- In disaster response planning, roles and responsibilities are defined, policies and procedures are developed and generic tools for responses are identified and developed.
- The response plan is developed based on assumptions of risks and hazards, and does not address specific disaster scenarios - as is the case for contingency plans.
- Plans thus, must be monitored, evaluated and adapted to the specific situation in times of disaster.

Rationale of Disaster

- Responses are mainly directed at:

- 1) limiting casualties;
- 2) alleviating hardship and suffering;
- 3) restoring essential life support and community systems;

- 4) mitigating further damage and loss; and
- 5) providing the foundation for subsequent recovery.

Disaster Responses:

a. **Search and Rescue**

• Typically, in many disasters, this is the first step in response. • •As an example, in an earthquake, many people get buried under debris of their homes or other buildings. Some people may be alive under a collapsed building. Some of these people may survive if they are rescued and given medical help. • •Some people may be dead and it is necessary to remove those dead bodies as rotting bodies can become a health hazard. • •Specialised teams are involved in search and rescue. While the local community can also help, we need trained response forces having the necessary equipment to do the job. • Depending upon the geographical spread of the affected area, it may take time to reach the affected people. • •The transportation network may be damaged. In such situations, aerial search and location of affected people will be required. • •The local community can be trained for some of these activities. • •The survivors will be the first responders in disasters. They can help many other people so that they survive. • •If a proper disaster management plan and operating procedures are laid out, the search and rescue work can take place fast.

b. **Medical Care/ First Aid** • An immediate requirement when rescue efforts are going on is medical help. • •Some people may have minor injuries that need first aid immediately. Some others may have serious injuries requiring hospitalisation. • •Many others may need heavy medication and surgical procedures to save their lives. All this requires well-planned and organised medical services. • •On-field care and ambulance services must be available. • •Many remote areas may not have facilities and equipment available locally. The patients will have to be shifted to nearby towns for healthcare. • •Also, the dead bodies recovered should be taken care of, till they are identified and disposed by relatives. It will also be necessary to monitor the health of survivors, particularly the children and the elderly. • The need for first aid and emergency medical care arise in most disasters and response in this direction is of essence. • First aid is the provision of initial care for an

illness or injury. • It is usually performed by non-expert, but trained personnel to a sick or injured person until definitive medical treatment can be accessed. • Emergency medical care is immediate paramedic attention to severe wounds and the rapid transportation of the ill or injured to a health facility

c. **Relief Aid:** • This relates to any provision of assistance during an emergency that is meant to attend to a person’s immediate requirements for survival or recovery. • It may include food, clothing, housing, medical care, necessary social services and security when a person is faced with circumstances beyond her or his control. • Relief aid must be targeted at the most vulnerable first: Vulnerable children or orphans, female or child headed households, pregnant or lactating women, sick or elderly populations.

d. **Humanitarian Relief** The Humanitarian Charter provided 4 (four) principles that must be followed in responding to emergencies based on the right to live in dignity, the right to receive humanitarian assistance, and the right to protection and security The principles are: 1) avoid exposing people to further harm as a result of your actions; 2) ensure people have access to impartial assistance; 3) protect people from physical and psychological harm due to violence and coercion; and 4) enable access to remedies and recovery from abuse

e. **Damage Assessment** • During the response phase, many government and private agencies will be at many sites where damage has occurred. • •Loss of life and damage to private and public property has to be assessed. • •Aftershocks of earthquakes can cause damages. • •There may be damage to buildings, roads, and water supply and sanitation facilities. Such damage will have to be assessed and work started on priority on some aspects like water and sanitation for the health of the public. • •People can live in temporary shelters for some days, but they would like to go back to their homes as early as possible. Reconstruction efforts should start as early as possible.

f. **Coordination** • Coordination is key to successful disaster response, and is essential in ensuring timely and appropriate scaling-up of resources. • Good coordination is crucial for combining resources

effectively and efficiently, in order to reach the disaster-affected more rapidly. • It contributes to better cooperation, reduces the level of duplication and helps to ensure a well-organised operation. • Coordination activities can take place at different levels and in different forms. • During the response phase, with multiple agencies offering their help, coordination of efforts is a key factor. • •Setting up of a control room and identifying the person in command, is a first step in coordination. • •For coordination of the response efforts, the following points are important: 1) Unified command: A person, most suitably a government official, should be identified as the person commanding the whole operation. He or she may allocate duties to others in case the geographical spread of the area is large. 2) Control room: The control room should be safe from the impact of the disaster. The control room should be manned 24 hours of the day with a good communication set-up to communicate with people at different locations. Key persons in command must be notified of all developments at frequent intervals as agreed upon.

RELIEF

- Disasters in most cases take away many essential subsistence needs and livelihood, making coping difficult for victims/communities affected. The victims end up needing help.
- It is defined as the provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. Relief can be of an immediate, short term, or protracted duration
- Relief, as a disaster management process, provides timely essential needs such as basic household items, shelter, food, water and sanitation, or health items.
- Relief activities provide goods and services to disaster-affected populations in the form of supplies, vouchers or cash transfers, so as to enable those populations to cover their essential needs. Relief measures differ, depending upon the nature of disaster. At certain occasions, money may have no value, but certain articles like food, clothes, etc. may be more important

- Relief, globally, is guided by fundamental principles which disaster organisations and NGOs engaging in disaster relief response ought to apply.

The principles require that:

1. Response to disasters must have humanitarian imperative
2. Aid is provided based on needs alone and must be done without discrimination of any kind (race, creed or nationality of the recipients)
3. Aid will not be used to further a particular political or religious standpoint
4. Aid agencies do not to act as instruments of government foreign policy
5. That culture and custom are respected in response and relief activities
6. Disaster response is built on local capacities
7. Ways be are developed to involve programme beneficiaries in the management of relief aid
8. Relief aid would reduce future vulnerabilities to disaster as well as meeting basic needs
9. Accountable to both those we seek to assist and those from who we accept resources
10. Information, publicity and advertising activities shall recognise disaster victims as dignified human beings and not hopeless objects