

Unit 4

Disaster Management Cycle – Phases III and IV: Response and Recovery

Introduction

Disaster response is the sum total of actions taken by people and institutions in the face of disaster. These actions commence with the warning of an oncoming threatening event or with the event itself if it occurs without warning. The focus in the response and recovery phases of the disaster management cycle is on meeting the basic needs of the people until more permanent and sustainable solutions can be found.

Developmental considerations contribute to all aspects of the disaster management cycle. One of the main goals of disaster management, and one of its strongest links with development, is the promotion of sustainable livelihoods and their protection and recovery during disasters and emergencies. Where this goal is achieved, people have a greater capacity to deal with disasters and their recovery is more rapid and long lasting. In a development oriented disaster management approach, the objectives are to reduce hazards, prevent disasters, and prepare for emergencies.

Upon completion of this unit you will be able to:



Outcomes

- *Define* disaster response and recovery.
- *State* the aims of disaster response.
- *Explain* typical disaster response activities.
- *Explain* the difference between modern and traditional response.
- *Give* examples of modern methods.
- *Explain* activities of disaster recovery.



Terminology

Development:	A step or stage in growth or advancement in society, economics or in politics for a better lifestyle.
Evacuation:	Removal from hazardous place to another that is safe.
Humanitarian	The act of promoting the welfare of humanity, especially through the elimination of pain and suffering.
Logistics	The branch of civil defence or agency that have to do with procuring, maintaining, and transporting materiel, personnel, and facilities
Recovery:	The return of buildings and infrastructure to a normal or improved state after a setback or loss.
Relief:	Private or public help in the form of money, food, clothing, shelter, or medicine, provided to people who are temporarily suffering from the effects of disaster and are at the time completely helpless.
Remittance:	Sending of money to pay for resources or services to help people in need after a disaster.
Reconstruction:	A community or structure that has been reorganized, reformed, or restored after being impacted by a disaster or other hazard.
Rehabilitation:	To restore buildings, or parts of towns, to their former condition or better.
Response:	Actions taken in reaction to a disaster or similar hazards.
Security:	Safety measures that provide a sense of protection against loss or harm from disaster or uncertain circumstances.
Volunteerism:	The practice of using volunteer workers, especially in community service or disaster organizations and programmes.
Warning:	Advice given to somebody or persons to be careful of impending danger.

Disaster Response

The aim of emergency response is to provide immediate assistance to maintain life, improve health, and to support the morale of the affected population. Such assistance may range from providing specific but limited aid, such as assisting refugees with transportation, temporary shelter, and food, to establishing semi-permanent settlement in camps and other locations. It also may involve initial repairs to damaged infrastructure. The focus in the response phase is on meeting the basic needs of the people until more permanent and sustainable solutions can be found. Humanitarian organizations are often strongly present in this phase of the disaster management cycle.

During a disaster, humanitarian agencies are often called upon to deal with immediate response and recovery. To be able to respond effectively, these agencies must have experienced leaders, trained personnel, adequate transportation and logistic support, appropriate communications, and guidelines for working in emergencies. If the necessary preparations have not been made, the humanitarian agencies will not be able to meet the immediate needs of the people.

This section identifies the principal activities of disaster response. Each activity is (formally or informally) governed by a set of policies and procedures, typically under the auspices of a lead agency. In the end, disaster response activities are implemented by multiple government organizations, international and national agencies, local entities and individuals, each with their roles and responsibilities.

Aims of disaster response

The overall aims of disaster response are:

- To ensure the survival of the maximum possible number of victims, keeping them in the best possible health in the circumstances.
- To re-establish self-sufficiency and essential services as quickly as possible for all population groups, with special attention to those whose needs are greatest: the most vulnerable and underprivileged.
- To repair or replace damaged infrastructure and regenerate viable economic activities. To do this in a manner that contributes to long-term development goals and reduces vulnerability to any future recurrence of potentially damaging hazards.
- In situations of civil or international conflict, the aim is to protect and assist the civilian population, in close collaboration with the International Committee of the Red Cross (ICRC) and in compliance with international conventions.
- In cases involving population displacements (due to any type of disaster) the aim is to find durable solutions as quickly as possible, while ensuring protection and assistance as necessary in the meantime.

Disaster Response Activities

The following are typical activities of emergency response:

1 Warning

Warning refers to information concerning the nature of the danger and imminent disaster threats. Warnings must be rapidly disseminated to government officials, institutions and the population at large in the areas at immediate risk so that appropriate actions may be taken, namely, either to evacuate or secure property and prevent further damage. The warning could be disseminated via radio, television, the written press, telephone system and cell phone.

2 Evacuation and migration

Evacuation involves the relocation of a population from zones at risk of an imminent disaster to a safer location. The primary concern is the protection of life of the community and immediate treatment of those who may be injured.

Evacuation is most commonly associated with tropical storms but is also a frequent requirement with technological or industrial hazards. For evacuation to work there must be:

- A timely and accurate warning system,
- Clear identification of escape routes,
- An established policy that requires everyone to evacuate when an order is given,
- A public education programme to make the community aware of the plan.

In the case of a slow onset of a disaster, for example severe drought, the movement of people from the zone where they are at risk to a safer site is not, in fact, evacuation, but crisis-induced migration. This movement is usually not organized and coordinated by authorities but is a spontaneous response to the perception by the migrants that food and/or security can be obtained elsewhere.

3 Search and rescue (SAR)

Search and rescue (SAR) is the process of identifying the location of disaster victims that may be trapped or isolated and bringing them to safety and medical attention. In the aftermath of tropical storms and floods, SAR usually includes locating stranded flood victims, who may be threatened by rising water, and either bringing them to safety or providing them with food and first aid until they can be evacuated or returned to their homes. In the aftermath of earthquakes, SAR normally focuses on locating people who are trapped and/ or injured in collapsed buildings.



4 Post-disaster assessment

The primary objective of assessment is to provide a clear, concise picture of the post-disaster situation, to identify relief needs and to develop strategies for recovery. It determines options for humanitarian assistance, how best to utilize existing resources, or to develop requests for further assistance.

5 Response and relief

When a disaster has occurred response and relief have to take place immediately; there can be no delays. It is therefore important to have contingency plans in place.

Relief is the provision on a humanitarian basis of material aid and emergency medical care necessary to save and preserve human lives. It also enables families to meet their basic needs for medical and health care, shelter, clothing, water, and food (including the means to prepare food). Relief supplies or services are typically provided, free of charge, in the days and weeks immediately following a sudden disaster. In the case of deteriorating slow-onset emergency situations and population displacements (refugees, internally and externally displaced people), emergency relief may be needed for extended periods.

6 Logistics and supply

The delivery of emergency relief will require logistical facilities and capacity. A well-organized supply service is crucial for handling the procurement or receipt, storage, and dispatch of relief supplies for distribution to disaster victims.

7 Communication and information management

All of the above activities are dependent on communication. There are two aspects to communications in disasters. One is the equipment that is essential for information flow, such as radios, telephones and their supporting systems of repeaters, satellites, and transmission lines. The other is information management: the protocol of knowing who communicates what information to whom, what priority is given to it, and how it is disseminated and interpreted.

8 Survivor response and coping

In the rush to plan and execute a relief operation it is easy to overlook the real needs and resources of the survivors. The assessment must take into account existing social coping mechanisms that negate the need to bring in outside assistance. On the other hand, disaster survivors may have new and special needs for social services to help adjust to the trauma and disruption caused by the disaster. Participation in the disaster response process by individuals to community organizations is critical to healthy recovery. Through these appropriate coping mechanisms will be most successfully developed.

9 Security

Security is not always a priority issue after a sudden onset of disasters. It is typically handled by civil defence or police departments. However, the protection of the human rights and safety of displaced populations and

refugees can be of paramount importance requiring international monitoring.

10 Emergency operations management

None of the above activities can be implemented without some degree of emergency operations management. Policies and procedures for management requirements need to be established well in advance of the disaster.

11 Rehabilitation

Rehabilitation consists of actions taken in the aftermath of a disaster to enable basic services to resume functioning, assist victims' self-help efforts to repair dwellings and community facilities, and to facilitate the revival of economic activities (including agriculture). Rehabilitation focuses on enabling the affected populations (families and local communities) to resume more-or-less normal (pre-disaster) patterns of life. It may be considered as a transitional phase between (i) immediate relief and (ii) more major, long-term reconstruction and the pursuit of ongoing development.

12 Reconstruction

Reconstruction is the permanent construction or replacement of severely damaged physical structures, the full restoration of all services and local infrastructure, and the revitalization of the economy (including agriculture). Reconstruction must be fully integrated into ongoing long-term development plans, taking account of future disaster risks. It must also consider the possibilities of reducing those risks by the incorporation of appropriate mitigation measures. Damaged structures and services may not necessarily be restored in their previous form or locations. It may include the replacement of any temporary arrangements established as a part of the emergency response or rehabilitation. Under conditions of conflict, however, rehabilitation and reconstruction may not be feasible. For obvious reasons of safety and security, activities in rehabilitation and reconstruction may need to wait until peace allows them.

Modern and traditional responses to disasters

The responses to disasters may employ a mix of approaches from traditional to modern with these approaches moving back and forth depending on the nature of disaster in term of their scope. The scope of disasters has influenced responses in the following ways:

- Humanitarian (aid to relieve pain and suffering),
- Remittance (Cash sent to victims),
- Relief assistance (food, medication, tents),
- Networking (contacting organizations),



- Volunteerism (internal and external groups of people volunteering help or community- based approach) and
- Mutual aid agreements (pre-drawn up agreements to provide resources)

As disasters continue to occur, people affected by them sometimes need external assistance in order to survive and recover. Response can be either modern or traditional to the extent that assistance is transferred to individuals in the disaster. The assistance can either be provided in-kind, in the form of food aid, shelter materials, seeds or blankets, or it can be provided in cash, enabling people to decide for themselves what they most need, and to buy in local markets.

A striking means of response to disasters has been remittances where people residing outside the disaster area channel sums of money or goods over long distances to those affected. The terms used to describe this response are most commonly understood to refer to transfers between migrants and their places of origin.

In many countries the community-based approach to emergency response has been the Community Emergency Response Team (CERT), organized in communities to work closely with the local government and the community members themselves to identify community needs and priorities for any disaster situation.

Other examples of response are:

Local Partnerships: One charitable organization, (World Vision) has a rich network of local partnerships with churches, community organizations and government agencies that come to us when families in their community suffer a disaster. Local police precincts and politicians' offices often call on World Vision to assist them after an emergency.

Gifts-in-Kind: Charitable organisations actively solicit corporate partners to donate needed new products to assist disaster survivors in their recovery and supervise the distribution of these products. Their goal is for every Storehouse to have a constant supply of emergency resources to be distributed at a moment's notice. Products will include such things as water, blankets, medical supplies, latex gloves, and kits containing enough hygiene and paper products, and other necessities to supply a family of four for up to four days.

Civil Service: World Vision as one of the charitable organisations works to be a voice in the community by serving on planning committees such as National and State Volunteer Organizations Active in Disasters (VOAD), Office of Emergency Management (OEM), FEMA, Red Cross, Salvation Army and Habitat for Humanity (H4H). These relationships allow organisations to serve as a liaison to the community and be a voice for the children and families they serve.

Specific Needs: In the aftermath of an emergency, families have many needs. Because of the large variety of donations that are received and distributed, World Vision is able to meet these special needs. New clothes, shoes, furniture, mattresses, school supplies, building materials and

cleaning supplies are only a few of the unique offerings that it is able to offer.

Modern methods of disaster response

New technologies can be very useful and powerful tool in disaster response, namely:

- 1 **Cell phones:** cell phones as warning devices can be very useful. Short messages can be sent to recipients warning of imminent threat of tropical storms, wind storms or any severe weather likely to cause damage.
- 2 **Spatial information** – use of satellite imagery. The emergency management community is keenly aware of the potential of mapping technologies such as geographic information systems (GIS), remote sensing (satellite imagery), and global positioning systems (GPS) in support of emergency response operations.

Increasingly, geographic technologies are being utilized for hazard mitigation as well as response efforts. These range from damage assessments mapping the event and affected areas to search and rescue, risk assessment, risk perception (Hodgson and Palm, 1992), and risk communication (Hodgson and Cutter 2001). There is more information on the role of technology for managing disasters in *Unit 8*.

- 3 **Social media and social networking** – social media and social networking can be used as a tool to emergency response communications. Text messaging such as Twitter and the social networking system such as Face book can be used as a channel of communication in disaster response.

Examples of suggested applications of social media and social networking include:

- ▣ Use blogs to rapidly publicize the need for assistance grants.
- ▣ Create geo-tagged photo groups to document damage.
- ▣ Publicize volunteers willing to share recovery-relevant expertise.
- ▣ Use map-based mashups (combinations of data in webpages) to display relevant local information.
- ▣ Immediately share “lessons learned.”
- ▣ Integrate volunteer directories with social networks to simplify information sharing.
- ▣ Distribute weather information via methods that support geographic targeting.
- ▣ Encourage sharing of resource information among corporations that will most likely be involved in recovery work.
- ▣ Use the assistance application process as basis for voluntary sharing of information among affected populations.

Disaster Recovery

As the emergency is brought under control, the affected population is capable of undertaking a growing number of activities aimed at restoring their lives and the infrastructure that supports them. There is no distinct point at which immediate relief changes into recovery and then into long-term sustainable development. There will be many opportunities during the recovery period to enhance prevention and increase preparedness, thus reducing vulnerability. Ideally, there should be a smooth transition from recovery to on-going development.

Recovery activities continue until all systems return to normal or better. Recovery measures, both short and long term, include returning vital life-support systems to minimum operating standards; temporary housing; public information; health and safety education; reconstruction; counselling programmes; and economic impact studies. Information resources and services include data collection related to rebuilding, and documentation of lessons learned. Additionally, there may be a need to provide food and shelter for those displaced by the disaster.

Recovery activities are classified as **short-term** and **long-term**.

During response, emergency action was taken to restore vital functions while carrying out protective measures against further damage or injury.

- a* **Short-term recovery** is immediate and tends to overlap with response. The authorities restore interrupted utility services, clear roads, and either fix or demolish severely damaged buildings. Additionally, there may be a need to provide food and shelter for those displaced by the disaster. Although called short-term, some of these activities may last for weeks
- b* **Long-term recovery** may involve some of the same activities, but it may continue for a number of months, sometimes years, depending on the severity and extent of the damage sustained. For example, it may include the complete redevelopment of damaged areas. The goal is for the community to return to a state that is even better than before the emergency.

This is an ideal time to implement new mitigation measures so that the community is better prepared to deal with future threats and does not leave itself vulnerable to the same setbacks as before. Helping the community to take new mitigation steps is one of the most important roles during the recovery phase.

The Recovery Plan

The recovery process should be understood clearly and it is important to have a general plan for recovery which should be appended to emergency operation plans.

The primary purpose of the plan is to spell out the major steps for managing successful recovery. For each step you will also designate key

partners and their roles and steps to mobilize them. The plan should have at least the following seven steps:

- 1 Gathering basic information
- 2 Organizing recovery
- 3 Mobilizing resources for recovery
- 4 Administering recovery
- 5 Regulating recovery
- 6 Coordinating recovery activities
- 7 Evaluating recovery

For the majority of disasters, local communities are able to provide the assistance needed for recovery. However, for a major disaster, it may be necessary to obtain assistance from the government and other sources. Therefore, preparations must be made to request outside aid if a major disaster occurs. This will mean informing and convincing decision makers, especially those outside the affected area. Documenting the effects of the disaster is the best way to carry this out.

Documentation involves providing evidence of what happened. Photographs of the damage provide irrefutable evidence. Take pictures of the damage, the repair work, and completed restorations. You cannot take too many pictures.

There can be a good documentation if the following five simple steps are followed:

- 1 Take pictures of damages and repairs. More is better than too little. Private citizens may have excellent shots to supplement your own.
- 2 Take notes on damages and repairs. Again, more is better than too little. If there is too much to write at one time, dictate your notes into a tape recorder for later transcription.
- 3 Clip and file newspaper reports and stories. If you can get video footage from the television stations, do that also.
- 4 Record all expenditures carefully and keep all receipts and invoices.
- 5 Make sure anyone acting on behalf of the jurisdiction does the same.

Disasters as opportunities for development initiatives

Disasters can be a vehicle for major development programmes. The political impact of damage and disruption can be a real catalyst for change. Disaster inspired development initiatives are influenced in a number of ways, but two aspects are especially important. First, disasters can highlight particular areas of vulnerability, for example where serious loss of life has occurred, or where the economic damage is disproportionate to the strength of the impact. The outcome of this is usually to highlight the general level of underdevelopment. Second, for a few weeks or months, the political environment may favour a much higher



rate of economic and social change than before, in areas such as land reform, new job training, housing improvements, and restructuring of the economic base (note however that this may involve a transfer of resources from other areas and sectors). The value of direct international assistance given after disasters may partially compensate for economic losses, although the amounts are usually rather small in relation to the total loss.

There may also be longer-term benefits from a drastic restructuring of the economy as a result of a disaster. For example, small island economies which were previously dependent on a single crop may expand their economic base, often with international assistance. The extent to which development opportunities can be followed up after a disaster will usually be constrained or otherwise influenced by donor investment policy for emergency loans. It is illustrative to review the current World Bank criteria for emergency lending for post-disaster investment. (Stephenson and DuFranc, 2002)

Unit summary



Summary

Unit 4 provides information on disaster response and recovery likely to be made by institutions or agencies and residents during the management of disasters. The focus of the disaster response is shown to be the survival and medical assistance to disaster victims in a timely fashion to save lives. Disaster response is a sub-division of disaster management that takes into consideration acts of recovery and self-sufficiency; reconstruction and rehabilitation that can be carried out in the short and long term in the best interest of people involved before, during and after disasters.

Mitigative strategies such as evacuation, early warning, search and rescue have been methods of disaster response aimed at reducing the impact of disasters on people. They have been highlighted with the view to show the importance of their use in disaster management. Relationships between the disaster response and resources, security and communication in disaster management are highlighted to demonstrate the ways that people cope and survive disasters.

The modern versus traditional methods of responding to disasters are described to show distinctions and commonalities between the methods of humanitarian, remittance, networking, volunteerism and mutual aid agreements that disaster responders may choose to use, depending on the scope and magnitude of disasters experience by communities and the resource assessment made.

Assignment



Assignment

Research the disaster management response and recovery components of the disaster plan in your country. You are expected to discuss with appropriate resource people to answer this assignment.

Self-Assessment



Assessment

- 1 Protection of life and treatment of persons are reasons for evacuation. True or False
- 2 The traditional response to disaster can in some cases contribute to the modern method. True or False
- 3 Reconstructions after a disaster should be carried out so that they are better than before a disaster. True or False
- 4 Recovery measures are short term only. True or False.



- Solutions:
- 1 True
 - 2 True
 - 3 True
 - 4 False

References

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http://training.fema.gov/EMIWeb/downloads/is1_Unit5.pdf

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