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# UNIT 7 DISASTER RELIEF AND RESPONSE\*

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## 7.0 OBJECTIVES

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After reading this Unit, you should be able to:

- Understand the concepts of disaster relief and response;
- Examine disaster relief measures and methodologies;
- Assess response mechanism; and
- Understand the role of Government and Non-government bodies involved in the process of disaster response and relief.

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## 7.1 INTRODUCTION

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A disaster is an event that occurs, in most cases, suddenly and unexpectedly, causing severe disturbance to people and objects of environment, resulting in loss of life, property and health of the population. Such a situation causes disruption in the normal pattern of life, generating misfortune, helplessness and suffering and affecting the socio-economic structure of a region or country or continent to such an extent that there is a need for assistance or immediate external intervention from within the country or outside.

Disasters threaten sustainability of economy worldwide. In the past twenty years, earthquakes, landslides, floods, tropical storms, tsunamis and other calamities have killed around three million people, inflicted injury, disease, homelessness and misery on about one billion others, and caused damage worth billions of rupees. Developing countries, especially the most densely populated regions suffer the brunt of natural disasters. Between 1990 and 2015, more than 97 per cent of all natural disaster related deaths were in developing countries. The world's worst natural disasters have claimed many lives and have caused damage to property in millions. Poverty and unsystematic development amplify the adverse effects of natural disasters. Developing countries are particularly vulnerable because they have limited capacity of preventing and absorbing these effects.

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Disasters destroy decades of human effort and investment, thereby forcing demand on society for reconstruction and rehabilitation. However, the impact of disasters in terms of loss of life and property, and damage to the environment can be minimised by appropriate mitigation and preparedness plans, commensurate with level of resources and technologies available. India is one of the most disaster prone countries in the world. A major disaster occurs in India almost in every 2-3 years and 50 million people are affected annually from these disasters. On an annual basis, around 1 million houses are damaged along with human, social, economic and other losses.

In the aftermath of a disaster, the immediate need is that of relief to be provided to the victims. This falls within broad parameters of response that gets into being after the disaster has caused enormous devastation. The response is ensured so that at the immediate instance some relief is made possible.

Relief work is about the bottom line of ensuring basic minimal necessities that relief must secure. Basic relief attempts to secure survival by ensuring that people have access to four things:

- Sufficient drinking water and sanitation
- Sufficient food
- Basic medical care; and
- Shelter from extreme weather conditions.

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## **7.2 DISASTER RELIEF MEASURES AND METHODOLOGIES**

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Disaster relief is a systematic effort carried out through a number of actions. These are discussed here under.

### ***Evacuation***

In the event of the impending disaster the first step towards relief to be provided in the area concerned is through evacuation. It is carried out for the purpose of ensuring safety of people. Thus, it involves shifting of population from the risk areas of the concerned disaster to safer place, which could be a cyclone shelter, a concrete building, and higher altitude for a temporary shelter.

Evacuation is of different types namely:

- Preventive (done much before the disaster actually strikes);
- Protective (done as a precautionary measure to guard against spread of diseases or an impending disaster);
- Rescue-oriented (focusing on rescue operation whereby in the aftermath of disaster the inhabitants are to be moved to identified places in safe areas).

For evacuation to be effective, there is requirement of timely and accurate warning, clearly identified escape routes, arrangement for transportation, cooperation of the people of affected area and coordination amongst various stakeholders involved in the process. Evacuation could be of great relevance, if carried out effectively. It gets proved by the example of cyclone Phailin wherein large scale evacuation was carried out leading to a minimum death toll, though the region suffered damage,

worth million of dollars and affected the livelihood of 13 million in October, 2013 (World Bank, 2013).

Past experiences and lessons learnt from the past also play a substantive role in making evacuation a success. It gets proved from the view expressed by an official in Odisha, “zero causality became the war cry of the state government. We took cyclone 1999 as a benchmark to develop policies to reduce risk, and the reference to 1999 was used to persuade people to evacuate. We knew from 1999 that one of the main reasons the cyclone killed so many people was that few people evacuated. (Interview with high-level official in charge of district of Ganjam, Bhubaneswar, November 2014)” (Walch, 2018). Evacuation process comprises number of steps each leading to required action as shown in the Table 7.1 below:

**Table 7.1: Steps in Evacuation Process**

<b>STEP</b>	<b>ACTION</b>
Determine the need	Determine whether there is need for total or partial evacuation.
Identify a relocation area	Select an area that is free of hazards and easily accessible.
Communicate	Communicate to everyone involved about the need to evacuate and update them on the locations of shelters.
Pre-designate routes	Designate routes from the area to be evacuated to be the area of location. Consider alternatives.
Verify routes periodically	Make sure that the evacuation is proceeding smoothly, and that during evacuation, no bottlenecks are created along the evacuation route.
Report the evacuation	Be sure to inform governmental emergency management personnel about the evacuation to avoid unnecessary duplication of efforts and risks.

*Source:* IGNOU-NDMA, 2012.

### ***Search and Rescue (SAR)***

Search and Rescue (commonly known as SAR) is of utmost importance in ensuring People’s safety. The process needs to be carried out after the disasters strike an area. It is carried out by the locals, who are the first responders; NGOs; voluntary organisations and the emergency agencies. Search and Rescue operations are meant to save as many trapped people as possible. It aims at survival of the maximum number of affected persons. It is normally and preferably carried out with the help of people as they are familiar with the area concerned and also have the assessment of the trapped victims. Primarily Search and Rescue operations are undertaken by trained personnel who normally follow the following three key principles:

- **LOOK:** See physically the incidents and make a thorough visual perception.
- **LISTEN:** Listen to all sources of information from the community and government records etc. Assess the community data regarding people in danger.
- **FEEL:** Feel convinced regarding the facts, the gravity of the dangers involved and one’s own capacity to respond (IGNOU-NDMA, 2012).

The Search and Rescue kits, ideally available in central location of vulnerable areas, contain required tools. A typical SAR kit comprises the following.

**Disaster Management:  
Concepts and Institutional  
Framework**

- Evacuation map of the building or area
- Hammer
- Screw driver (6" flat)
- Axe
- 24" Crow bar
- Spade
- Pickaxe
- 50-foot rope
- Torch
- Spare battery cells
- Hard shoes or Gum Boots
- Helmet
- Hand gloves
- Dust Mask

There are number of techniques and ways of rescuing affected individuals and carrying victims. These could be listed as:

- i) One-Person Arm Carry
- ii) One-Person Pack-Strap Carry
- iii) Two-Person Lift
- iv) Chair Carry
- v) Blanket Carry
- vi) Improvised Stretchers
- vii) Drag
- viii) Ropes, Knots and Techniques
- ix) Double Sheet-Bend
- x) Chair Knot
- xi) Lashings (Tie something firmly to something else)
  - Square Lashing
  - Diagonal Lashing
  - Figure of Eight Lashings
  - Round Lashing

xii) Improvised Swimming and Floating Aids

- Raft
- Breast-Line (Life-Lines)
- Rules of Breast-Line-Throwing

***Shelter***

Disasters like, Earthquake, Landslide, Cyclone, Flood cause destruction and serious damage to buildings and infrastructure. Besides, in case of cyclones or floods, people are asked to move out of the dwelling units to earmarked shelters.

Shelter is also one of the relief measures as it provides place for people in the event of either impending disaster or in the post-disaster situation. Thus, it means interim housing to meet basic immediate needs of disaster victims. The prime purpose of a temporary or designated shelter is to safeguard peoples' lives from exposure and further suffering. Temporary shelters are either in the form of tents or specifically assembled structures made of variety of material including wood, plastic, tin, etc.

A 10 point guideline for temporary shelter provisions prepared in the aftermath of Kashmir Earthquake of 2005 by Ian Davis is as follows (IGNOU, 2006).

1) **Monitor what is going on**

Use this disaster to inform the coordination agencies about what goes on in this sector, at micro and macro levels, such as, who is deciding on shelter approaches; where is the expertise; what the popular wisdom on shelter is; what are the dilemmas and conflicts? etc.

2) **Tents**

The likelihood is that a wide variety of tents, with varied specifications will arrive, some very appropriate, while others are hopelessly unsuited for the climate or cultural conditions. Who adopts what specifications and, is there any quality control or standardised specification? If families tear their allocated tent to use the canvas in creative ways this can be highly effective, yet in some contexts, some 'tidy minded' officials have been known to ban this adaptive process.

3) **Standards**

Minimum standards of shelter provision are given under the Sphere Project, and are accepted around the world. These should be adhered to, and adapted where there is a need for modifications. The basic principles of the standards should be ensured in all temporary shelter programmes.

4) **Location of Tents**

Where possible, families should be allowed to take a tent and put it near their house rather than on a centralised campsite. Reasons for this are obvious; it would provide for better care of domestic animals in rural settings, protection of household belongings that may remain within their ruined dwellings and maintenance or recovery of livelihoods that may be linked to the home.

5) **Shelter Materials**

Probably, one of the best policies is to distribute shelter materials, such as blankets,

roofing, sheeting, plastic sheeting, lengths of planed timber, building tools, wire, rope, nails, etc. Where possible, these can be sold where people have money to avoid dependency, but where people do not have resources, they can be donated. If the materials for roofing, sheeting, etc., can come with expertise and the support of skilled volunteers to assist in building, this will enhance the process.

#### **6) Shelter for Families with Damaged Dwellings**

Aftershocks can bring down damaged, but standing houses. Therefore, such families need to be advised to sleep outside their homes in tents or improvised shelters even if they spend time in the day in their homes. The risks are very high when they are lying flat, sleeping and a damaged structure collapses. Rapid damage surveys need to check on this issue as a vital measure to avoid further losses of lives from aftershocks.

#### **7) Local Advice Centres**

Repairs begin immediately, regardless of whether or not the government seeks to stop the process until structural safety surveys have been undertaken. Small teams can be assembled, comprising volunteer engineers/ architects/ builders who can be assigned different areas to offer advice concerning shelters and repair and rebuilding options.

#### **8) Transition Housing**

An effective strategy is to seek to help families to create a transitional dwelling that will eventually develop into a permanent dwelling. This is a preferable approach to providing expensive rehabs that will later be replaced by another permanent home (In effect this a wasteful double reconstruction approach). The aim is to use the sheltering process to accomplish three things: provide shelter, strengthen local livelihoods and aid the psychosocial recovery process.

#### **9) Debris**

In many disaster situations there is often large-scale destruction of building debris during the clearing and recovery process. Vital timber and masonry debris is destroyed in the process. It is essential to collect useful building debris for recycling purposes.

#### **10) Shelter Units**

Each disaster will attract a community of intrepid inventors or commercial opportunists who seek to convince officials to place big orders for their novel creations made of cardboard, plastic, polyurethane, etc. Such designs are essentially innovative answers seeking a problem. They often cost far more than tents and shelter materials; they can be culturally and climatically inappropriate and can take ages to deliver. There are better alternatives available as noted above.

It is not only human beings but also livestock which get affected by disasters. In fact the causality among livestock is very high because at time of disaster, they are left tied to their stakes leaving no means of escape. Thus, there is need for provision of shelter for livestock as well with focuses on the following, availability of fodder; maintenance of hygiene; and assistance of veterinary staff.

#### ***Distribution of Food, Water and Fodder***

Number of agencies, Government and Non-government, do take steps for the distribution of food, water, medicine and fodder, etc., to the victims after the disaster. However, the community needs to have its own stock of the said items

for the purpose of its consumption in between the time of disaster occurrence and arrival of the relief distribution teams at the affected places. Community is also to be prepared for assisting the relief distribution teams as they are working in the community interest. Nevertheless, the distribution teams should not take this act as that of charity or obligation and should ensure that the consumables are provided to as many as possible and in the shortest possible time.

### ***Clearance of Debris***

Debris of collapsed buildings, bridges and other structures, as well as uprooted trees, hoardings, etc., are the biggest hindrance to search, rescue and relief operations, as they lead to the disruption of communication service and transportation. As such, debris clearance is the first step towards re-establishment of transport and communication networks and setting up of a system to enable effective search, rescue and relief efforts.

Debris clearance in a post-disaster scenario is a complex task, not only due to high volumes and hampered accessibility, but because the nature of debris is also unique. It may comprise rubble from damaged buildings, bridges and other structures, uprooted trees, poles and hoardings, damaged vehicles, goods and even accumulated solid waste, which may be of biodegradable or non-biodegradable nature.

During debris clearance operations, care has to be taken so as not to cause further problems endangering lives or property. There is need to safeguard survivors trapped underneath debris and attention is also required not to tamper with any infrastructure and service networks in the process of debris clearance. Survivors can be first searched. Local community can help in carrying out this operation.

### ***Movement of Injured to Hospitals***

The Local People, NGOs, elected members of the Gram Panchayat, local officials need to help the rescue team to prioritise the victims who have sustained more injuries for their transportation to the nearby hospitals. The serious cases must be given precedence over the less serious ones and accordingly injured should be moved to the hospitals for proper treatment.

### ***Disposal of Dead Humans***

Quick disposal of dead bodies is very important for containing the spread of diseases due to their quick decay. Besides, decomposing human dead bodies on the site with fast spreading stench, present a very unpleasant environment for the rescue workers as well as surviving victims. This could have a telling effect on their mental health.

However, human dead bodies need to be disposed off with great care because sentimental values are attached to the dead and human dignity is to be respected even after death. As such, the means, process and the manner of their disposal are of great importance to their kith and kin. The first step in this regard has to be the identification of the dead bodies. This is also required for compliance with police formalities. Once the ethnic background of the victims has been identified, then the bodies should be suitably disposed in accordance with their religious and cultural practices.

Resources such as fuel need to be mobilised for cremation purposes. Whose ethnic background prescribes burial have to be buried accordingly. If the families of the dead are at hand and are willing to take charge of the bodies for individual

disposal, this may be done. In case where there are no claimants or where bodies cannot be recognised, they should be collectively disposed through mass burial or cremation. In certain cases, where formalities and legalities, such as post-mortem medical reports and filling up of forms are required, assistance is needed to be provided to the relatives of the dead for completion of these formalities.

### ***Disposal of Dead Animals***

In most natural disasters, particularly in rural areas, the number of animal deaths are very high in residential areas, due to the fact that most domesticated animals are kept tied up, and in event of a disaster while the people flee urgently, the animals are left tied up; they have no chance of voluntary escape and thus, often perish.

Disposal of dead animals is as important as that of humans because decaying dead bodies can be a potential health and environment threat. Still, this aspect is usually accorded lower priority, more so in case of stray animals. The rescuers are not willing to handle animals' carcasses. Yet, this must be done expeditiously by local volunteers till the authorities take charge and get the carcasses disposed off. Disposal is best done by burial, at some place outside the habitated area. Till such times, nobody should be allowed to hold on to the dead bodies for extraction of hides or bones or any other recoverable material, because the risk of disease and infection is very high, and quickest disposal of the dead bodies is desirable.

### ***Sympathetic Attitude towards Victims***

When people suffer from disaster, they undergo certain psychological problems. The psychological stress is seen in the form of:

- i) Shock
- ii) Anger
- iii) Fear
- iv) Helplessness
- v) Anxiety
- vi) Depression
- vii) Sadness

There is a need for proper psychological support to the victims. Listening to distressed persons and offering empathy and understanding enable them not to feel alone and come to terms with the reality. However, it is required of the supporting persons to be objective and non-judgemental and refrain from giving advice or commenting on their emotions. None else than the local people are more suitable for this task as they already know about the victim, the family, the socio-economic conditions of the family, etc.

### ***Assisting Rescue Teams***

Once the disaster strikes and the news reach the Government and NGOs concerned, these organisations gear up to rescue the victims. Large number of rescue teams attempts to reach the disaster site. It becomes imperative for the community to provide all kinds of physical assistance by way of information and help to the rescue teams so that they can efficiently and effectively perform the tasks undertaken by them.

**Property Security**

In the event of disaster like cyclone and floods, people are supposed to move to the safer places like cyclone shelters, concrete shelters, etc. It is being observed that many people refuse to leave their dwelling units for fear of thefts and misplacement of their belongings. The locals with the help of the elected members of the local body, local officials, etc., must ensure safety of property of the people who have moved to the safer structures. This will not only save the assets but will also help in managing the migrants to the safer structures to keep cool and have balance of mind as they will not be worried for their belongings and property.

**Information Dissemination and Checking of Rumours**

The area, which has been struck by the disaster, has people whose relatives may be staying at far of places. Furthermore, there is a need for exact information to be passed on to the block and district authorities about the severity of disaster, likelihood of the damage, loss of human lives, loss of livestock, number of injured human beings and livestock so that proper rescue operation could be planned and carried out. Community could play a vital role in checking the spread of rumours as this proves to be counterproductive and may stall the relief and response measures initiated by the response teams.

**Immediate Damage Assessment**

Damage assessment is a pre-requisite of all disaster management practices. Rapid damage assessment is required for emergency relief measures. This would lead to the amount of medical relief and food stocks to reach the disaster area. Rapid damage assessment needs to include area affected in Sq. Kms.; number of people affected in the village, number of households partially and fully damaged, number of injured persons and livestock, etc.

**Filing of Claims**

The process of filling the claims must start as early as possible. The local officials, NGOs, community could assist the affected people to file the claims.

**Check Your Progress 1**

**Note:** i) Use the space given below for your answers.

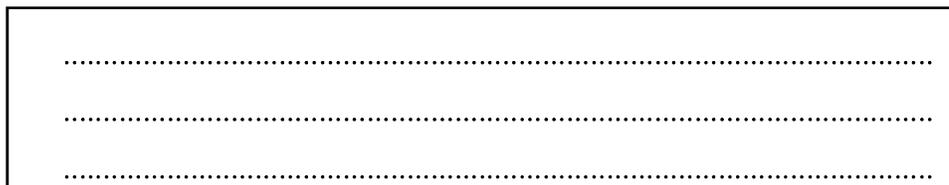
ii) Check your answers with those given at the end of the Unit.

1) What do you understand by disaster relief and response?

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2) List out the major steps initiated under disaster relief.

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### **7.3 RESPONSE MECHANISM**

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The National Emergency Operations Centre (NEOC) acts as the communication and coordination hub during this phase and it maintains constant touch with early warning agencies for updated inputs. It informs State Emergency Operations Centre (SEOC) and District Emergency Operations Centre (DEOC) through all available communication channels and mechanisms. The Disaster Management Division (DM Division) of the Ministry of Home Affairs (MHA) communicates and coordinates with designated early warning agencies, various nodal Ministries, and State Governments. It mobilises reinforcements from the National Disaster Response Force (NDRF), Armed Forces and the Central Armed Police Forces (CAPFs) and puts together transportation plans for moving resources. The National Disaster Management Authority (NDMA) supports the overall coordination of response as per needs of MHA. The NDMA provides general guidance, and takes decisions for the deployment of the NDRF. The NDRF is deployed as required depending on the request from State Government. They keep the force in operational readiness at all times.

At the national level, the Central Government has assigned nodal responsibilities to specific Ministries for coordinating disaster-specific responses. The National Executive Committee (NEC) coordinates response in the event of any threatening disaster situation or disaster. The State Government activates the Incident Response Teams (IRTs) at State, District, or block level and ensures coordination with the State Emergency Operation Centers (SEOC). The State Disaster Management Authority (SDMA) provides the technical support needed to strengthen the response system. It is essential that the first responders and relief reach the affected areas in the shortest possible time. Often, there are inordinate delays due to real constraints imposed by the location, nature of disaster and, most regrettably, due to inadequate preparedness. In many situations, even a delay of six to twelve hours proves to be too late or unacceptable. To make matters worse, relief tends to arrive in a highly fragmented or uncoordinated form with multiple organisations acting independently of each other without a cohesive plan, without mechanisms to avoid overlaps and without proper prioritisation of different aspects of relief such as shelter, clothing, food, or medicine. From an operational perspective, the challenges are similar across most hazards. The NDMA has formulated Incident Response System (IRS) Guidelines for the effective, efficient, and comprehensive management of disasters. The implementation of NDMA's IRS Guidelines by the States will help National Disaster Management Authority in standardisation of operations; bring clarity to the roles of various departments and other agencies, which are common to most disaster response situations. Disaster Ministries at the National level are assigned with the role of coordinating response for different disasters. The Table 7.2 below points out the designated ministries' role.

**Table 7.2: Central Ministries for Coordination of Response at National Level**

	<b>Disaster</b>	<b>Nodal Ministry/ Dept./ Agency</b>
1	Biological Disasters	Ministry of Health and Family Welfare (MoHFW)
2	Chemical Disasters and Industrial Accidents	Ministry of Environment, Forests and Climate Change (MoEFCC)
3	Civil Aviation Accidents	Ministry of Civil Aviation (MoCA)
4	Cyclone, Tornado, and Tsunami	Ministry of Home Affairs (MHA)
5	Disasters in Mines	Ministry of Coal; Ministry of Mines (MoC, MoM)
6	Drought, Hailstorm, Cold Wave and Frost, Pest Attack	Ministry of Agriculture and Farmers Welfare (MoAFW)
7	Earthquakes	Ministry of Home Affairs (MHA)
8	Floods	Ministry of Home Affairs (MHA)
9	Forest Fires	Ministry of Environment, Forests and Climate Change (MoEFCC)
10	Landslides and Avalanches	Ministry of Home Affairs (MHA)
11	Nuclear and Radiological Emergencies	Dept. of Atomic Energy, Ministry of Home Affairs (DAE, MHA)
12	Oil Spills	Ministry of Defence/Indian Coast Guard (MoD/ICG)
13	Rail Accidents	Ministry of Railways (MoR)
14	Road Accidents	Ministry of Road Transport and Highways (MoRTH)
15	Urban Floods	Ministry of Urban Development (MoUD)

*Source:* Government of India, 2016.

“The state and district administration identify sites for establishment of various facilities as mentioned in the IRS guidelines such as Incident Command Post, camp, base, staging area, camp, and helipad, for providing various services during the response. The state and local administration must widely disseminate and publicise information about these arrangements as mandated in the State Disaster Management Plan (SDMP) and District Disaster Management Plan (DDMP). Since disaster response operations are multifaceted, time sensitive, extremely fast-moving, and mostly unpredictable, it requires rapid assessment, close coordination among several departments, quick decision-making, fast deployment of human resources and machinery as well as close monitoring. In order to prevent delays and to eliminate ambiguities with regard to chain of command, the SDMP and DDMP must clearly spell out the response organisation as per IRS. These plans must clearly identify the personnel to be deputed for various responsibilities in the IRT at various levels of administration along with proper responsibility and accountability framework. Provision for implementation of unified command in case of involvement of multiple agencies such as Army, NDRF, CAPF, and International Urban Teams Search and Rescue must be spelt out in the SDMP. From time to time, the DM plan must be tested and rehearsed by carrying out mock exercises” (Adopted from NDMP, Government of India, 2016).

Catastrophic disasters like earthquakes, floods, cyclones and tsunami result in a large number of casualties and inflict tremendous damage on property and infrastructure. The Government of India has established a flexible response mechanism

for a prompt and effective delivery of essential services as well as resources to assist a State Government or Union Territory severely hit by a disaster. Disaster management is considered as the responsibility of the State Governments, and hence the primary responsibility for undertaking rescue, relief and rehabilitation measures during a disaster lies with the State Governments. The Central Government supplements their efforts through logistic and financial support during severe disasters as requested by the State Governments. Responding to such emergencies stretches the resources of district and State administration to the utmost and they may require and seek the assistance of Central Ministries/ Departments and agencies like the NDRF, Armed Forces, CAPF, and Specialised Ministries/ Agencies.

At times, the impact of disasters occurring in one state may spread over to the areas of other states. Similarly, preventive measures in respect of certain disasters, such as floods, etc. may be required to be taken in one state, as the impact of their occurrence may affect another. The administrative hierarchy of the Country is organised in to National, State and District level administration. This presents challenges in respect of disasters impacting more than one state. Management of such situations calls for a coordinated approach, which can respond to a range of issues quite different from those that normally present themselves – before, during and after the event. The National Crisis Management Committee (NCMC) plays a major role in handling such multi-state disasters. The NDMA will encourage identification of such situations and promote the establishment of mechanisms for coordinated strategies for dealing with them by the states and Central Ministries, departments and other relevant agencies.

While there are disaster-specific aspects to the post-disaster response, the emergency functions are broadly common to all disasters and there are specific ministries, departments, or agencies that can provide that emergency response. Besides, very often, there are multiple hazards and secondary disasters that follow a major disaster. Hence, response intrinsically follows a multi-hazard approach. Therefore, all the response activities have been summarised in a single matrix applicable to all types of disasters. The response responsibility matrix specifies the major theme of response. All agencies responsible for response should follow the NDMA's IRS guidelines, which will help in ensuring proper accountability and division of responsibilities. Different ministries and departments have to provide specialised emergency support to the response effort. Certain agencies of Central Government will play a lead role, while others will be in a supporting role. The SDMA, Commissioner of Relief (CoR), or the Dept. of Revenue is the nodal agency at the state level for coordination of response. The DDMA is the nodal agency for coordination of response at District level. Various central ministries, departments, agencies, and state governments have to prepare their own hazard specific response plans as per guidelines of the NDMA and in line with the NDMP. They need to ensure preparedness for response at all times and must carry out regular mock drills and conduct tests of readiness periodically, and the ministries/ departments must report the status to the NDMA (Government of India, 2016). The major tasks of response given in the responsibility matrix are:

- 1) Early Warning, Maps, Satellite inputs, Information Dissemination
- 2) Evacuation of People and Animals
- 3) Search and Rescue of People and Animals
- 4) Medical care

- 5) Drinking Water / Dewatering Pumps / Sanitation Facilities / Public Health
- 6) Food and Essential Supplies
- 7) Communication
- 8) Housing and Temporary Shelters
- 9) Power
- 10) Fuel
- 11) Transportation
- 12) Relief Logistics and Supply Chain Management
- 13) Disposal of animal carcasses
- 14) Fodder for livestock in scarcity-hit areas
- 15) Rehabilitation and Ensuring Safety of Livestock and other Animals, Veterinary Care
- 16) Data Collection and Management
- 17) Relief Employment
- 18) Media Relations

Planning and building capacity for responding to disasters has shown many positive effects. This begins with ensuring strong and standardised data collection capabilities at local and regional levels – in order to have access to up-to-date and accurate information during emergencies, to deploy aid efforts and assess losses. In addition, it is essential to assess risk levels and vulnerabilities of regions and populations towards a disaster as well as its aftermath.

These activities require continued and formalised local and community participation, and rely on non-government organisations and citizen groups to support government and defense organisations.

Emergency planning and preparedness also involves community-level preparedness – for which local, government, defence and private organisations must be provided training and resources. This can range from general safety procedures, guidelines for DOs and DON'Ts, chain of communication, guidelines on controlling emergency scenes, and evacuation and response drills.

With the involvement of multiple groups and at multiple levels of authority and expertise, it is also essential to establish a management mechanism to ensure all efforts and make it sure that communications are streamlined, and disaster assessments (in terms of damage occurred or medical assistance required) are accurate and timely. In the absence of such a mechanism, an emergency site can be overcome by chaos and confusion, further adding to risk and damage to life and property, causing wastage of relief materials and resources, and causing delays in response efforts.

It is thus, extremely critical to enable coordination among all parties involved at various levels of disaster relief and assign clearly defined and documented roles and responsibilities as well as reporting structures.

### **Check Your Progress 2**

**Note:** i) Use the space given below for your answers.

ii) Check your answers with those given at the end of the Unit.

1) Discuss the institutional structure for disaster response in India.

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2) What is the role of Emergency Operation Centre in disaster response?

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## **7.4 CONCLUSION**

In the post-disaster phase, the foremost relief operations which are undertaken are search and rescue. The untraced disaster victims are searched and rescued with the help of local communities. In accordance with Disaster Management Act, 2005, NDRF has been setup by the Government of India to ensure specialised response during disaster incidences. There is detailed discussion on various measures and methods of relief and response in the Unit. The disaster response is the actual implementation of the disaster plan. Disaster response is the organisation of activities used to respond to the events in post-disaster situation. The response phase includes the mobilisation of the necessary emergency services and first responders in the disaster areas. The mechanism of response is the activation of different components of response in accordance with the standardised emergency management procedures and protocols.

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## **7.5 GLOSSARY**

**Search and Rescue (SAR)** : Search and Rescue or SAR, as it is called, is a technical activity rendered by a group of specially trained personnel, who rescue and attend to the casualties under adverse conditions, where life is under threat. Search and Rescue is organised in close cooperation with the community with a team orientation. It is a procedure carried out immediately after a disaster to look for survivors and dead ones.

**Emergency Operations Centre (EOC)** : EOC is an off-site facility, which will be functioning from the State/District head quarters, and which is actually an augmented control room having communication facilities and space to accommodate the various officers.

**Disaster Relief and Response**

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## **7.7 ANSWERS TO CHECK YOUR PROGRESS EXERCISES**

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### **Check Your Progress 1**

- 1) Your answer should include the following points:
  - Disaster relief is the financial aid or services made available to individuals and communities that have experienced losses due to disasters such as floods, hurricanes, earthquakes, drought, tornadoes, and sociological terms as a major disruption of the social patterns of individuals and groups.
  - It is about the “bottom line” of ensuring basic minimal necessities to keep people alive.
  - Disaster response is the organised activities which are used to respond to the post disaster.
- 2) Your answer should include the following points:
  - Search and Rescue.
  - Evacuation.
  - Distribution of Food and Water.

### **Check Your Progress 2**

- 1) Your answer should include the following:
  - National Disaster Response Force and State Disaster Response Force
  - Armed Forces and Para Military Forces.
  - Nodal Ministries/Departments.
- 2) Your answer should include the following:
  - EOC is an off-site facility, which will be functioning from the State/District head quarters, and which is actually an augmented control room having communication facilities and space to accommodate the various officers.