UNIT 3  DISASTER PREPAREDNESS PLAN

Structure
3.0 Learning Outcome
3.1 Introduction
3.2 Planning in the Context of Disaster Preparedness
3.3 Disaster Preparedness Plan: Concept and Significance
3.4 Preparedness During Bhuj Earthquake: A Case Study
3.5 Disaster Preparedness Plan: Essentials
3.6 Conclusion
3.7 Key Concepts
3.8 References and Further Reading
3.9 Activities

3.0 LEARNING OUTCOME

After going through this Unit, you should be able to:

- Highlight the importance of planning in the context of disaster preparedness
- Discuss the concept and significance of disaster preparedness plan
- Comprehend the key facets of disaster preparedness plan through the Bhuj earthquake case study; and
- Describe the essentials of effective disaster preparedness plan.

3.1 INTRODUCTION

The word ‘planning’ with reference to disaster generally entails two entirely different approaches. One is that of land-use or physical planning. It involves, for example, the regulation of the development processes in urban and rural areas through imposing limits on building heights and the use of land, the amount of land that can be built upon, etc. In urban areas that are declared to be ‘development areas’, laws and development regulations are accepted and are generally recognised as being helpful. However, outside the urban areas and especially in the rural flood plains, zoning and planning regulations are difficult to be enforced. If it does exist, it is mostly in the form of providing some positive directions, rather than precise law, setting out ‘what ought to be’. In such cases, planning raises awareness and sets certain standards.

The other form of planning is advocacy planning. In this approach, the planning team acts as a catalytic agent, presenting choices to various organisations such as local self-government, non-governmental organisations (NGOs), and community-based organisations (CBOs) with a view to bringing most benefits to a wide range of beneficiaries at an affordable cost.

Planning results in clear allocation of responsibilities and consequently improves coordination between agencies. Accordingly, the planning process should never be regarded as one in which some specialist or a team acts in isolation. The planning process
essentially needs to be action-oriented, involving a wide range of people and organisations to produce an end result which has the agreement and support of all those involved. In this Unit, we shall be discussing the significance and essentials of disaster preparedness plan.

### 3.2 PLANNING IN THE CONTEXT OF DISASTER PREPAREDNESS

Planning in the context of disaster preparedness is holistic. It needs to keep in view the developmental concerns, disaster policy, the disaster scenario, organisational structure and administrative arrangements and resources. A Disaster Preparedness Plan is to be formulated and executed at all levels from national to the grass roots or community level. In geographical terms, the nation, state, province, district and a village – all could have a Disaster Preparedness Plan. Individual organisations too, have such plans.

An effective basis of planning and the maintenance of relevant plans gives a clear and coherent approach in dealing with disasters. Within cities, planning is generally practiced at the level of the local government, either by a department of that government or by an authority separately established to execute delegated powers.

The advocacy approach is often propagated by presenting a well-publicised plan, but not one that necessarily has been formally approved. By stages, it becomes accepted as the appropriate way ahead. The planner using an advocacy approach is all too aware that householders have other considerations as well as disaster mitigation. For example, being near to their place of work, school or marketplace is of considerably greater interest to the average householder. On the other hand, when it is supported by existing planning laws and by administration of development control, physical planning is credible and likely to be implemented. The planning process will then have the status to lead and guide development in particular locations within the zones of concern.

The purpose of planning is to anticipate future situations and requirements, thus ensuring the application of effective and coordinated counter-measures. This is a useful definition for disaster management officials because it indicates the wide nature of requirements for counter-disaster planning. In other words, planning is not confined merely to preparedness to respond to specific disaster events. It should cater, as far as possible, to the various phases of the disaster management cycle. Therefore, requirements for planning involve a considerable flexibility of approach.

**Disaster Preparedness Plan for Health Services**

We shall now discuss the various aspects of health services preparedness plan in disasters with the help of an illustration of planning done by Regional Offices of World Health Organisation (WHO).

Olito Espinoza (1991) states that whether disasters are of natural origin or man-made, their effects in a country’s life can be detected for months, and sometimes even years. It is therefore, essential that any support operation be designed and implemented with a long-term perspective. This is why all the interventions originating in the Regional Office to meet such situations extend from a preparedness phase i.e., adoption of adhoc action plans and development of adequate human resources to a post-disaster support programme that includes preparing and carrying out jointly with national and international counterparts – medium and long-term rehabilitation plans for the health-sector.

Of course, the main thrust of the action is focused immediately after the disaster itself, during the so-called disaster phase. First of all, both the extent of the disaster and its
potential consequences on the health of the population have to be assessed. This is usually done by a field mission, which is sent within hours. A second step is to provide technical advice to solve the most urgent problems, and avoid stumbling blocks, which could originate from lack of coordination. Only then can we most efficiently mobilise relief assistance, either by relying on our own readily available but limited resources, or by calling upon potential donor countries and/or relief agencies, whether within the United Nations system or among non-governmental organisations. It may look like a complex process, but this sequence is essential in order to achieve coordination of efforts.

As soon as the report of a disaster reaches and sometimes before the disaster itself when it can be anticipated, for instance in an international crisis situation – an internal task force is activated within the Regional Office. All relevant specialists from the Regional Office are involved who participate in both the assessment of the emergency situation and the assistance measures. A group of external assessors is also kept on twenty-four hours notice, which is of priceless support to the task force; its members’ competence ranges from seismology to environmental pollution, and includes all the psycho-social aspects involved in emergency situations. Besides the fact that there are invaluable resource persons who can provide technical advice and support, these assessors are ready at any time to accompany a WHO field mission. There is also a network of WHO collaborating centres, usually national institutions which have signed an agreement to carry out a variety of activities at national level for the development of programmes on disaster preparedness, relief and rehabilitation. They also collect and analyse data on disasters, and frequently participate in the training of personnel.

Planning to be effective needs to take into account certain important aspects as discussed below:

Involvement of Professional Planners

It is virtually important for the planner, throughout the planning process to keep certain critical points in consideration. Being a person trained in a wide range of abilities ranging from administrative procedures to elementary structural engineering, he/she occupies a unique position as being able to perceive, from various standpoints, conflicting issues that might arise from time to time. Such a skill comes in most handy to settle the contentions of disputing professionals. Hence, there is a need to bring professionalism in the planning process.

Clear-cut Objectives

The planner has to take on the responsibility of keeping the plan objectives clear. After the aim has been initially drafted, it is useful to refer it to the minister concerned for confirmation, together with any major planning guidelines which may apply. This confirmation then provides an official basis on which the detailed drafting can proceed. It is also useful for the planner during the drafting to refer back occasionally to the ministry and keep it informed of the progress and raise with it any points on which further guidance is necessary.

Memorandum to Explain the Rationale of Planning

On the planner also rests the responsibility, at an early stage in the planning process and prior to detailed discussion, to circulate a memorandum to all departments and organisations involved. This memorandum also clearly states the aim of the plan, the general outline of the planning programme and the anticipated time-frame leading to governmental approval of the plan.
Wide Consultation to make Planning Fruitful

The planning process is a co-operative and collaborative in nature. There should always be full consultation with all concerned, particularly to ensure that mutual agreement is reached on the responsibilities designated within the plan. This consultative process is best carried out, from a practical as well as psychological perspective. After an agreement is reached as to the responsibilities, the planners are required to submit to the department or organisation concerned a written draft of the proposed plan input into the plan, for confirmation. There is a need for a good format of plan to encompass all components.

Monitoring

The question of how planning process is to be monitored is a matter of individual circumstances. Usually, planners, after their initial consultative discussions submit a draft outline of the plan to the concerned official or council. They then give an overall direction on the general scope and shape of the plan. Subsequently, the planners draft sections of the plan in detail and arrange periodic meetings with the council. This process is useful because it directly involves the council of ministers and helps to ensure that redrafting is progressive. This avoids drastic revisions when the draft plan is eventually completed. The planning process, and the plan itself, should include provisions for legal authorisation, thus making the plan a lawful instrument of the government.

Authenticity of Plan

Obviously, the responsibility carried by disaster management planners is an onerous one. If the planners get the plan wrong, then the repercussions can be very severe and widespread, possibly involving the loss of many lives. On the other hand, accurate and meticulous planning not only produces an effective plan, it also provides the focus for successful disaster management.

Utility of Planning

Planning is one of the most efficient tools available to deal with disaster. It can be applied in the physical aspects like land-use and infrastructure as well as in its advocacy form, which involves policies and proposals. Proper planning ensures that damages from disasters are considerably reduced in the long term. It also prepares people and officials to cope better in disaster situations. In the process of the preparation of a disaster preparedness plan, the planner plays the crucial role of facilitating coordination with the administrative authorities as well as among the different interest groups involved. On the planner lies the responsibility of keeping the ultimate aim and format in mind and accordingly guide the draft plan preparation process. A judicious combination of long-term and short-term planning measures is the best possible way to achieve the mitigation of disasters. Long-term and short-term planning techniques should ideally be applied after a sensible cost-benefit ratio has been arrived at. Long-term measures are sometimes not given their due importance as disaster management is often not of a high priority in the national development agenda.

3.3 DISASTER PREPAREDNESS PLAN: CONCEPT AND SIGNIFICANCE

A Disaster Preparedness Plan is a plan of action that indicates the objectives to be fulfilled, the preparedness and mitigation measures to be taken before, during and post-disaster phases. The plan provides a checklist of activities, responsibilities of various
government agencies, officials, NGOs, and international agencies at various stages, post-disaster review and assessment and also a schedule with procedures for reviewing and updating the plan. It is a comprehensive plan that enables the authorities take prompt action in disaster situations.

The High Powered Committee (HPC) also emphasised on formulation of preparedness plans at the national/state and district levels. It was desired that nodal plans should reflect some of the emerging paradigms in disaster management, principal of which is the increasing emphasis on prevention and preparedness as means to reduce risks. A significant aspect of HPC recommendations is the incorporation of trigger mechanism as an emergency quick response mechanism.

Trigger mechanism has been envisaged as preparedness plan whereby the receiving of a signal of an impending disaster would simultaneously energise and activate the mechanism for response and mitigation without loss of critical time. The trigger mechanism in essence is the Standard Operating Procedure (SOP) in which the implementation of the efforts on ground is well laid. Activities such as evacuation, search and rescue, temporary shelter, food, drinking water, clothing, health and sanitation, communications accessibility and public information, which are the components of disaster management would follow on the activation of the Trigger Mechanism. We shall be discussing this in detail in the Unit on Trigger Mechanism in the Course MPA-005 on Disaster Response of our PGDM Programme.

A Disaster Preparedness Plan made at any level:
- Provides for hazard identification and risk analysis
- Indicates basic information about the resources, demography, existing organisational set up, administrative facilities at that level, be it state, district and local levels
- Lists preparedness and mitigation measures and response mechanisms
- Defines specific roles and responsibilities for various actors at various levels; and
- Ensures networking/coordination with media, NGOs, international agencies and other stakeholders.

A Disaster Preparedness Plan facilitates the following:

**Clarifying Authority, Responsibility and Relationships**

Clarifying as to who is responsible for ensuring that the work gets done, distributing decision-making authority among the team members and the existing organisational units, and establishing formal lines of communication.

**Obtaining Resources**

Obtaining the funds, personnel, supplies and equipment necessary for doing the project activities.

**Establishing the Control System**

Determining the nature of information, which is necessary for carrying out the activities, identifying sources of such information and setting up reporting systems for the project.

**Directing and Controlling**

Motivating project staff, executing project activities, and obtaining information for control and taking corrective action as necessary.
Disaster Preparedness

Monitoring, Evaluation and Updation

The plan needs to be monitored from time to time and updated. The Case Study discussed in the next section reflects the various components, issues and problems involved in the management of earthquake.

3.4 PREPAREDNESS DURING BHUJ EARTHQUAKE: A CASE STUDY

We shall throw light on various aspects of management of disasters with the help of a case study of Kutch, (Gujarat) where earthquake struck in 2001 (26th January). These components, which are important in management of disasters, constitute the key facets of any disaster preparedness plan. The plan needs to reflect these measures.

Kutch district is spread over 45,932 sq. km. and covers about 22 per cent of the total area of Gujarat State. On 26th January at 8.46 A.M., the state of Gujarat was hit by an earthquake of 6.9 intensity on the Richter scale (according to IMD while the US Geological Survey puts the intensity at 7.7). The epicentre of the earthquake was located 20 kilometers north east of Bhuj. The damage was most severe in Kutch. The districts of Rajkot, Ahmedabad, Jamnagar, Surendranagar, Patan and Surat also suffered large-scale damages while other districts experienced relatively minor damages. Several areas of the state continued to experience aftershocks many days after the quake. The whole district of Kutch suffered a crippling loss in terms of life and property. The Eastern talukas of Rapar, Anjar, Gandhidham, Bhachau and Bhuj were totally destroyed while Mundra, Mandvi, Lakhpat, Abdasa and Nakhatrana suffered medium losses. All the 884 inhabited villages have suffered damages.

On 26.1.2001, as soon as the earthquake hit the state, the district authorities contacted the army, which started its operations immediately. In addition, teams consisting of top level officials of the state government also reached Bhuj. They reviewed the situation and initiated their efforts to set up the machinery for starting the relief and rescue operations in spite of the collapse of district administration. Moreover, the communication network had collapsed totally making the government machinery non-functional. Although the (as also most of the employees) administrative infrastructure suffered losses, the administration immediately tried to mobilise rescue efforts. It has been reported that at a great personal risk, an official wore a helmet and went into the collapsing Collectorate to retrieve the only satellite phone available and tried to establish communication with the outside world. In the absence of any intact structure, control room, other counters were set up under the trees in the Collectorate compound.

1,66,087 people were provided with shelters at 473 different community centers, which were later, supplemented by tents and tarpaulin/polythene sheets. All the affected families were provided with hot cooked meals through the volunteers of national and international non-government organisations. Government supported them through supply of free foodgrains and relief materials.

Relief Administration

On 6th February, four bureaucrats were posted as Coordinators for each of the worst affected talukas of Gandhidham, Rapar, Bhachau and Anjar. An officer of the rank of Principal Secretary to Government was posted at Bhuj as Chief Co-coordinator for overall coordination of all relief operations with full powers of all the departments of the state government. The staff of other departments such as the Roads and Buildings,
Irrigation, RTO, Civil Supplies, Forest, Health, Water Supply, State Transport and Telecom, etc., were also requisitioned to restore basic facilities as soon as possible.

**Department for Rescue and Relief Operations**

Considering the magnitude of the task, the government also decided to create a separate department of earthquake relief under the general administration department and elevate the administrative structure in the 15 worst affected talukas to the level of districts to take up the relief, rehabilitation and reconstruction works speedily for the next six months.

**Police Administration**

A Police Control Room was set-up in the premises of SP’s office to direct rescue and relief operations. As people started coming to this Control Room, a detailed information register was maintained, that had information about the nature of damage, the number of persons trapped, dead or injured persons, the type of machinery required (Crane, Gas Cutter etc.), the place of incident and action taken. Because of this information, as the rescue teams and machinery started arriving, they could be immediately despatched to the worst affected areas without loss of time with a local police guide. In the initial few days, only the police carried out all the coordinating functions between various security agencies by establishing a strong communication system.

Because of the massive quake, the police were faced with a situation of protecting the houses and shops. To instil a feeling of security and to give physical protection to individual’s property with the limited resources on the 26th January itself, check points were established in all the affected areas of the district. The movement of people was restricted at night and access to localities was only permitted after the verification of identity.

**Armed Forces**

Within 45 minutes of the disaster, 14 and 6 columns were sent out from two military stations of Bhuj and Gandhidham respectively. On the first day, army recovered 110 survivors and 116 dead from Bhuj and 108 survivors and 58 dead from Gandhidham. The General Hospital collapsed and the Military Hospital, being the only hospital in Bhuj and adjoining areas, treated nearly 50,000 civilians including performing 1500 operations on the first day itself.

Heavy equipment like bulldozers (43), excavators, dumpers (26), cranes, air compressors (11), generators (29), gas welding plants (6), welding generators (5), water purification plants (6), light recovery vehicles (18), pumps, hydraulic and pneumatic tools were deployed. In addition to this, a large number of heavy equipment was provided by the Government of Gujarat and deployed by the Army. The units also restored the arterial road communications of all the major towns and villages.

**Health and Medical Services**

Emergency medical services were immediately restored. A team of 36 experts from the All India Institute of Medical Sciences, New Delhi reached Bhuj on 26.1.2001 at 11:00 P.M. and a medical team from Rajkot reached Anjar on the same day. Medical teams were formed by pooling resources of the Health Department from all over the state to provide first aid to the injured. As the health infrastructure of the district had collapsed, around 4000 seriously injured persons were evacuated by air and road to hospitals outside Kutch in Gujarat as well as to hospitals in Mumbai and Pune. To provide complete health and medical services to the earthquake affected, expert teams started doing regular rounds.
To prevent epidemics in earthquake hit areas of Kutch, teams of experts from National Institute of Communicable Diseases, New Delhi, were sent to all the affected areas. Experts from WHO provided support to these teams. Based on their assessment and advice, preventive steps were taken to prevent any outbreak. A surveillance system was also put in place to give early warning to ensure effective intervention to prevent any such problem at the initial stage itself. About 60 lakh Chlorine tablets and over 70,000 Oral Rehydration Solution (ORS) packets were distributed till 7th March, 2001. This is in addition to chlorination of the water supply to prevent any water borne disease. As a result of all these steps, there was no threat of any epidemic.

The medical teams with a large quantity of medicines for providing medical assistance came from France, Japan, South Korea, Mexico and other countries. The International Red Cross Society and Israel Army established field hospitals at Bhuj. While Denmark set up a hospital at Gandhidham, Government of Ukraine set up a hospital at Bhachau and a medical unit from Japan was working in Madhapar and Kukma. Voluntary organisations, corporate houses, army, state government, international agencies, and foreign countries came forward to provide mobile medical equipment and medicines, ambulances and hospitals, which supplemented the government's resources to ensure that there was complete control over the health situation in the disaster area.

**Power Supply**

The earthquake destroyed or severely damaged all the sub-stations of the district, thereby causing total failure of power supply in entire Kutch district. Gujarat Electricity Board could resume power supply to Bhuj city within a short span of three days by working round the clock. Within 14 days, electric supply could be restored in all the villages and towns.

**Water Supply**

The earthquake extensively damaged all water supply systems in Anjar, Bhuj, Bhachau, Rapar and Gandhidham and most of the systems in rest of the Talukas. All urban centres in the above five Talukas, 693 villages covered under 121 group schemes and 191 villages having individual systems were severely affected.

The temporary restoration work was carried out to the damaged systems for immediate resumption of water supply. Medium and long-term measures for installing a new system in place of affected systems were initiated on a priority basis through the following measures:

i) Drilling and developing new tubewells.

ii) Repairs and replacement of pumping machinery.

iii) Reconstruction of treatment and storage facilities with balancing reservoirs in long distance pipelines.

iv) Replacing and strengthening of distribution pipelines with metallic strong-impact proof material.

v) Repairs, upgradation and replacement of captive power generating sets in major rural/ regional water supply and urban systems.

Provision of water through tankers started from 27th January and by 30th January almost all the villages and urban towns were served disinfected water.

**Foodgrains Supply**

For meeting the survival needs of affected people, the relief administration, on 28
February, Kutch, decided to distribute 10 kgs of wheat, 5 kgs of rice and 5 litres of Kerosene free of cost through Public Distribution System (PDS) wherever possible, and where this was not possible, it was undertaken through voluntary organisations. The normal functioning of the PDS was restored and stabilised within two weeks. In addition, flour and food kits were distributed in the affected areas. 56 Mobile vans of Kalpataru were put into operation to distribute food kits to the areas where fair price shops were not functional. A food kit consisted of 50 kgs. of floor, 3 kgs. of rice, 1 kg. groundnut oil, 1 kg salt, 2 kgs. potatoes, 1 kg. onion and 700 grains of masala. 1,13,788 kits had been distributed through these vans till 3 March, 2001.

Telecommunication Services

The earthquake destroyed 147 Telephone Exchanges all over the district affecting about 1 lakh telephone connections. Optical fibre cable and copper cables were broken at innumerable places due to building collapse and falling debris. To restore communication facilities, 23 satellite PCOs and 90 free STD/PCOs were installed at different locations providing free of cost services to people. Twelve teams from outside Kutch district and Gujarat were deployed for the restoration of the telecom network in the minimum possible time. Wireless sets and local loop had also been used to provide the services to the rescue teams as well as the administration for speedy transmission of information. Optical Fibre Terminus was procured from Bangalore and far off places in a very short period. All the 147 exchanges were revived, within a month, with some of them functioning in tents and temporary structures. Gujarat Telecom Circle has planned to make Kutch district as a model telecom district by inducting state of the art technology, wireless and local loop for urban and rural areas separately.

In brief, the calamity, which had befallen Kutch, was of unprecedented magnitude and intensity. The property loss was gauged through non-technical survey teams despatched on 29 January, 2001 to affected areas. However, a survey of urban areas was carried out through a large number of composite teams consisting of technical and other staff for detailed damage assessment. An extensive survey was conducted of all affected areas by special teams of the Social Defence Department to get a correct estimate of the vulnerable groups requiring special attention such as orphans, widows, aged and physically challenged.

To protect these vulnerable groups, instructions were issued to pay compensation to be deposited in designated bank accounts to be operated jointly by the beneficiary/guardian and a government official. Only the interest due was to be paid every month to the beneficiary and no withdrawal was permitted without the approval of the designated authority.

In order to take care of the orphans, three shelters each for such boys and girls have been opened in the affected areas. To ensure that these children are brought up in familiar family surroundings, assistance under the Foster Family Scheme has been raised from Rs. 350 to Rs. 500 per month in the affected areas. Shelters for support-less senior citizens were set up in the affected areas of the district through NGOs with grants-in-aid by the government. Similarly, arrangements were made to rehabilitate the widows to enable them put together their lives again.

The government later took up the reconstruction and rehabilitation. Various government agencies both at the centre and the state have chipped in along with voluntary efforts and contribution by philanthropists and corporate houses. Substantial efforts have gone into the
rescue and rehabilitation activities, yet a more systematic and planned approach could perhaps have saved a few more lives.

This case study in brief brings out the important elements that the preparedness plan at the state or district level need to reflect. These include key components of disaster preparedness encompassing provision of food, water, restoration of power and telecommunication, etc., There are so many agencies and departments involved that the plan has to clearly indicate their roles and responsibilities. Disaster preparedness plan needs to take cognisance of the various activities.

The Disaster Management Act 2005, lays down that there shall be a plan for disaster management for the whole of the country to be known as the National Plan. This includes:

a) Measures to be taken for the prevention of disasters, or the mitigation of their effects
b) Measures to be taken for the integration of mitigation measures in the development plans
c) Measures to be taken for preparedness and capacity building to effectively respond to any threatening disaster situations or disaster
d) Roles and responsibilities of different Ministries or Departments of the Government of India in respect of measures specified in clauses (a), (b) and (c).

A properly devised disaster management plan facilitates the localising of a disaster and containing its adverse effects to a large extent. A formal plan needs to indicate:

- Inventory of existing resources
- Mechanisms for effective management of resources
- Role and responsibilities of the stakeholders
- Standard operating procedures for the involved organisations; and
- Linkages with the governments at the central, state and local levels for institutional support for managing disaster.

3.5 DISASTER PREPAREDNESS PLAN: ESSENTIALS

Disaster preparedness plan, to be effective, has to adhere to certain essential prerequisites as discussed below:

Creation and Strengthening of the Nodal Agency

The nodal agency at the central level is said to function devoid of much needed expertise in different areas of disaster management. The National Disaster Management Authority (NDMA) which was set up after the tsunami, it was felt, did not respond quickly in the aftermath of the recent-earthquake in Jammu and Kashmir. Insensitive as it may sound, the Jammu and Kashmir earthquake provided the perfect opportunity for the recently constituted National Disaster Management Authority to test its preparedness. Instead the seven member panel was left twiddling its thumb as it got no help from the Home Ministry, the nodal agency (The Hindustan Times, 2005). Creation of nodal agency is not sufficient to give importance to the activity of managing disasters. It needs to be strengthened with clear out specification of powers and responsibilities and autonomy. In addition it requires the following:
a) Experts in different areas who may meet at regular intervals of time to assess the situation and provide suitable suggestions.

b) Control room of nodal agency should be well furnished with the latest equipment and some key persons may be entrusted the task of supervision and guidance.

c) Documentation—historical, present plans, future design for disaster management must be systematically compiled to have easy access and availability.

d) Constant monitoring and evaluation should be done even after the disaster to ensure rehabilitation, even though disaster management is a state subject.

**Establishment of State Disaster Planning and Preparedness Management Machinery**

It has been seen in Kutch, that there was no well-defined and established disaster planning and preparedness management machinery. It was set up after the occurrence of the disaster in right earnest and its first meeting could take place only after a lapse of eight hours. During such a gap, there was great loss of life and property. It is suggested that:

a) Well-established machinery for disaster planning preparedness management at state level may be set up, as envisaged in the Disaster Management Act 2005, on a permanent basis as it is a state subject.

b) The disaster management machinery must be staffed by experts and bureaucrats responsible for implementation.

c) It should make use of latest technology such as Geographical Information System, remote sensing, etc.

d) An inventory of equipment required for different disasters should be kept ready.

e) A list of reliable and efficient NGOs must be kept alongwith their area of specialisation.

f) Special attention may be focused on the areas prone to disaster.

g) A permanent fund may be instituted so that immediate action may be initiated.

h) A roster of disaster management experts must be maintained.

The Disaster Management Act 2005 provides for setting up a State Disaster Management Authority, with multifarious responsibilities.

**NGOs’ Participation in Disaster Preparedness Plan**

The government alone cannot meet the needs of the people in such a crisis. They should take the help of NGOs in their work. The following points may be kept in mind.

a) NGOs must be given specific task-based work suiting their specialisation in order to avoid duplication and overlapping.

b) Only those NGOs of long standing with proven track record may be allowed to function.

c) NGOs should work with dedication and without self-interest.

d) The financial health of the NGOs must be ascertained.

e) A protocol for government-NGO coordination be put in place.

**Preparation of Exhaustive Preparedness Plans at District and Levels**

The District is the focal point of administration from where all relief and rehabilitation work is ensured. At present, this is being done without exhaustive plans to mitigate the.
sufferings of disaster affected people. It is suggested that in a district all plans may be prepared separately for each type of disaster viz., earthquake, flood, drought, etc., indicating the actions on the basis of the presumptions derived from past experience and occurrences in previous years. The District should also involve local bodies both urban and rural, as envisaged in 73rd and 74th amendments of the Constitution. A planning machinery has been provided under the Act, which can be activated for this purpose.

To ensure effective preparedness of the state to handle disasters, efforts are initiated at the state level for State Disaster Management Action Plan to support, strengthen and complement the efforts of the district administration. The preparation by District Disaster Management Action Plan (DDMAP) by each district would prove helpful in the long-run.

Community-based Disaster Preparedness Plan

In addition to the plans prepared at the state, district and local levels, attempts are to be made to make the community participate in the preparation of plan at grass roots level. We shall be discussing about this in detail in Unit 6 of this Course.

Coordination

In the present set-up there is a need for perfect coordination between district, state and central government administration as well as with various ministries and organisations related with the response operations. From the experience gained from various natural disasters, it is felt that there is scope for improvement in coordination between various agencies/organisations, working for relief and rehabilitation. The role of coordinator/leader in disaster situation becomes very significant.

3.6 CONCLUSION

The concept of planning is undergoing transformation in present times. Planning is done not only at macro but micro levels. This is considered to be precise and realistic as planning attempted at grass roots levels takes into account the resources, and needs of the people. Disaster preparedness plan formulated not only at national, State and district levels, but percolating to the community level shall prove useful. As we have highlighted in the Unit, preparedness plans facilitate the immediate execution of needed mechanisms to handle the crisis and ensures clarity in roles and responsibilities of all involved stakeholders. Plans are to be based on the assessment of response and preparedness actions needed to handle the vulnerabilities and the existing capacities. Disaster preparedness plan has to ensure quick response to a disaster situation. This to a great extent determines the intensity of impact on the community.

3.7 KEY CONCEPTS

Community-based Disaster Preparedness Plan: These are plans prepared with the help of the community at the local level. The plans take stock of the existing resources, hazards the community is exposed to, prevailing infrastructure, coping mechanisms etc. The objective of preparing these plans is to strengthen the capacities of people and institutions at community level.
Standard Operating Procedures: It includes written guidelines or instructions describing in detail the carrying out of a particular task. The basic idea is to standardise the performance of any work procedure.

Trigger Mechanism: The concept of 'trigger mechanism' has been proposed by the High Powered Committee (HPC) in 2001. It has been conceptualised as an "emergency quick response mechanism", which when activated prior to or on occurrence of disaster event simultaneously sets into motion the required prevention and mitigation measures without any loss of time.

3.8 REFERENCES AND FURTHER READING


Goel, S.L and Ram Kumar (Eds.), 2001, Disaster Management, New Delhi, Deep & Deep.


The Hindustan Times, 21 October, 2005.


3.9 ACTIVITIES

1) Contact any government department and enquire about the disaster preparedness plan. Note the various aspects covered by such plan.

2) Attempt to formulate an outline of a disaster preparedness plan for the area where you are residing.