UNIT 10  DISASTER PREPAREDNESS: ROLE AND RESPONSIBILITIES OF INTERNATIONAL AGENCIES, NON-GOVERNMENTAL ORGANISATIONS, COMMUNITY-BASED ORGANISATIONS, COMMUNITY AND MEDIA

Structure
10.0 Learning Outcome
10.1 Introduction
10.2 Role of International Agencies
10.3 Role of Non-governmental Organisations
10.4 Role of Community-based Organisations
10.5 Role of Community
10.6 Role of Family and Individuals
10.7 Role of Media
10.8 Conclusion
10.9 Key Concepts
10.10 References and Further Reading
10.11 Activities

10.0 LEARNING OUTCOME
After studying this Unit, you should be able to:
• Discuss the role of international agencies in the field of disaster preparedness
• Highlight the non-governmental organisations' and community-based organisations' contribution towards disaster preparedness
• Appreciate the role of community in disaster preparedness
• Orient yourself and your family in handling disasters; and
• Examine the role of media in disaster situation

10.1 INTRODUCTION
Disaster by definition is an occurrence of an event of severity and magnitude that normally results in deaths, injuries, and property damage which cannot be managed through the
routine procedures and resources of government. It usually develops suddenly and unexpectedly and requires immediate, coordinated, and effective response by government, voluntary and private sector organisations to meet human needs and ensures speedy recovery.

One traces the legacy of international assistance in disaster management, Red Cross has been the first transnational organisation which provided relief to the war affected, in the Battle of Solferino in 1859. It was J.H. Durant, a Swiss Philanthropist and Humanitarian, who founded the International Committee of Red Cross in 1863 in Geneva. Gradually, increasing frequency and magnitude of damages resulting from disasters, has made disaster assistance an important part of the international relations. The increasing interdependence of nations has also provided a boost to several international agencies, to come forward and provide needed resources. In this Unit, we shall discuss the role of International Agencies, Non-governmental Organisations (NGOs), Community-based Organisations, Community, Family, Individual, and the Media.

10.2 ROLE OF INTERNATIONAL AGENCIES*

With the world becoming a global village, the interdependence of nations has increased. In such a scenario, disaster assistance has got a respectable image and makes it an acceptable part of international relations. The overall concept of international disaster assistance is recognised by most nations as being valid, practicable and productive and has been accepted both by the victim and donor countries.

The most significant example of this is the earthquake in Bam in Iran in December 2003, in which most part of the town constituting around 50,000 population was totally destroyed with hardly any survivors. The international agencies, UN organisations, Red Cross and Red Crescent, foreign governments and other agencies rushed emergency assistance, with search and rescue operations, medical aid and relief supplies. The important point is that even USA which did not have diplomatic relationship with Iran for over twenty years, provided assistance.

International agencies render assistance at various stages from pre-disaster, response operations to recovery programmes as well as capacity building. The assistance encompasses all forms, including, formulation of plans at national and other levels, standard operating procedures, institution building, monitoring and warning systems, disaster assessment surveys, search and rescue, provision of emergency equipment and supplies, emergency communication facilities, medical teams, medical equipment and supplies, transport facilities, food, water purification plants, logistic facilities, expert guidance, training, shelter material, and financial grants or credits.

During sudden catastrophic disasters, assistance is needed and the affected recipient country is usually in some form of post-impact shock. In such a situation, the recipient countries may have difficulty in identifying the assistance needs. In some circumstances, the affected community may become totally or over-dependent on aid. In such situations, generally, the traditional practices of combating disaster get eroded and self-coping mechanisms of rehabilitation have to be strengthened.

During severe and widely publicised disasters, over supply of aid itself becomes a problem. The transport, communication and infrastructure facilities which get severely

*Some portions of this Unit are adopted from the Report of the High Powered Committee on Disaster Management, Government of India, Ministry of Agriculture, New Delhi, 2001
disasters. Many of the international Urban Search and Rescue Teams, which handled Gujarat earthquake, were trained by INSARAG/OCHA. UNOCHA has standing Memoranda of Understanding (MoU) with international agencies for "environmental emergencies" e.g., for chemical weapons related emergencies, they
have an MOU with Organisation for Prevention of Chemical Warfare (OPCW) and another for chemical/industrial accidents with United Nations Environmental Programme (UNEP) and for nuclear emergencies they have standing arrangements with International Atomic Energy Agency (IAEA). The role of international agencies is critical to the functioning of the above systems.

UN Disaster Mitigation Team (UNDMT) in India has an inter-agency working group consisting of United Nations Development Programme (UNDP), United Nations Children’s Emergency Fund (UNICEF), Food and Agriculture Organisation (FAO), International Labour Organisation (ILO), United Nations Educational, Scientific and Cultural Organisation (UNESCO), United Nations Family Planning Agency (UNFPA), United Nations Industrial Development Organisation (UNIDO), World Food Programme (WFP) and World Health Organisation (WHO) (Interested learners may visit the websites of respective UN agencies to know about their role in disaster preparedness). These agencies with a concern for disaster management are known as the Humanitarian Agencies in the UN family.

**UNDP Disaster Risk Management Programme**

A Disaster Risk Management Programme has been taken up by India with the assistance from UNDP, United States Agency for International Aid (USAID) and European Union in 169 most hazard prone districts in 17 States including the North Eastern States during 2002-07. The programme aims to minimise losses of development gains from disasters and reduce vulnerability. Disaster preparedness is the important component of this project. Other activities include awareness generation and public education, preparedness, planning and capacity building, developing appropriate institutional, administrative, legal and techno-legal policies at state, district, block, village, urban local body and local levels for vulnerability reduction.

UNDP’s Emergency Response Division sponsors activities in two main areas. The first is preventive development, which includes:

- Assessing vulnerability to crises and natural disasters
- Establishing early warning systems
- Developing and maintaining a framework of development responses and other contingency disaster plans to be used if a crisis erupts
- Forming and strengthening UN Disaster Management Teams
- Integrating disaster preparedness, mitigation, prevention and response programmes into national development programmes; and
- Preparing National Human Development Reports.

The second activity is training in order to contribute to human resources development by improving capabilities in:

- Risk and vulnerability analysis
- Planning for contingencies
- Designing responsive structures
- Implementing prevention and mitigation strategies for disaster and crisis (Lynch and Unnikrishnan, 2000).
Disaster Preparedness: Role and Responsibilities of International Agencies, Non-governmental Organisations, Community-based Organisations, Community and Media

World Bank

International Bank for Reconstruction and Development (IBRD) popularly known as World Bank offers project loans for reconstruction and development to developing countries. In July 1998, a Specialist Disaster Management Facility (DMF) was set up at its headquarters in Washington, D.C. The World Bank has also posted Disaster Management Specialists in some of its offices. Realising the importance of disaster management in development projects, World Bank now incorporates disaster management component in many of its projects. World Bank has financed rehabilitation projects after the Latur earthquake (1993), Orissa super cyclone (1999), and Gujarat earthquake (2001). The main objective of setting up DMF is to promote disaster risk management. The World Bank’s central assistance strategies include preventive and mitigation measures, enabling communities to reduce the vulnerability to any disaster.

Asian Development Bank

Asian Development Bank, which is in Manila, is a Philippines-based regional development bank for Asia and the Pacific. It provides long-term project financing. ADB has also financed rehabilitation projects in India mostly in conjunction with IBRD. ADB also does research on disaster management and has brought out some useful publications. Thus, international agencies play a key role in all activities of disaster management cycle. Their activities encompass areas pertaining to preparedness, response, recovery and rehabilitation.

10.3 ROLE OF NON-GOVERNMENTAL ORGANISATIONS

Non-governmental organisations (NGOs) occupy a place of prominence in establishing a vital link between government and the community. They perform varied roles in pre-disaster, during-disaster and post-disaster stages. They can contribute in a positive manner in establishing closer and informal links with the community, providing dedicated, motivated personnel, mobilising financial and natural resources and professional and technical services.

Abhiyan

Abhiyan, as the Kutch Nav Nirman Abhiyan is known, is a network of grass roots organisations that was set up DMF in the aftermath of the devastating cyclone that hit Kutch in May 1998. It is a network of 29 voluntary organisations which has undertaken coordination, planning, lobbying and capacity building activities. It is not a directly implementing organisation, Abhiyan galvanised highly effective disaster relief operations by ensuring close coordination between NGOs, the district administration, health services, donor agencies and the disaster-affected people. The main objective is to foster rehabilitation of the individual communities and ensure that local capabilities are built and the resources are maximised to avoid dependency. As Abhiyan was already operating in the field, during the Gujarat earthquake of January 2001, they were able to provide effective and efficient services. Abhiyan with help from Gujarat State Disaster Management Authority (GSDMA) and UNDP has published at least four editions of “Coming Together”, which gives interalia, details of 211 NGOs which have worked or are working in the Kutch area.

VASUDEVA

Voluntary Agencies for Sustainable Universal Development and Emergency Voluntary Action – VASUDEVA network was formed with the intention of creating a bridge between the NGOs and the Government sector as also within the NGOs working in the field of disaster management. Five elements to sustain VASUDEVA were recognised
which include donation, grant, cooperation, skill application and offering services. One of the principles of VASUDEVA was that development must be such that it protects from calamities, not such that it becomes a calamity itself. It was envisaged to become a people's movement for disaster management.

**Indian Red Cross Society**

In India, Red Cross Society functions at the national, state and district level. This is an organisation that provides relief to the people when they are in dire need of it. Since this is an offspring of an international movement, it is a non-political organisation. It is the image of the Red Cross that makes it one of the most acceptable institutions in providing relief to the people in distress. Till 1995, the Red Cross was working primarily as a relief organisation. From 1996 onwards, it has shifted its focus from relief to disaster preparedness and started developing community-based disaster preparedness plans. This is a unique feature of the training programmes being organised by the Red Cross. It is basically concerned with relief distribution including first aid and transporting/shifting the victims of disaster to hospital or other safer places. It has around 650 branches. The International Federation of Red Cross and Red Crescent Societies (IFRCRCS) is the coordination body of national Red Cross and Red Crescent Societies. It publishes World Disasters Report every year on different themes.

The lack of a well-coordinated network between the NGO sector and the government and also between the NGOs themselves is well known. The general perception is that lack of coordination among the NGOs is responsible for dearth of information about most of the exemplary work done by NGOs at the grass roots level, and duplication of efforts in some areas and near total absence in other areas.

NGOs are of different sizes, origins, with different areas of operations and varied expertise. They can be those working at field level, associations of local occupation groups, residents' associations, religious and charitable bodies etc. NGOs cover a whole range of activities. Some are international in character, some national, some regional and some times the outcome of efforts of an individual. Some NGOs work in a professional way, some have full time paid staff, and others do activities voluntarily.

By and large, NGOs have well-delineated priority areas. These include:

- Developing personnel capabilities, with inputs from organisations like Church’s Auxiliary for Social Action (CASA) and Cooperative for Assistance and Relief Everywhere (CARE).
- Identifying the feasible areas from the long list of disaster management needs.
- Reducing relief duplication and wastage.
- Coordinated access to donors (UN agencies, embassies, bilateral aid agencies etc.).
- Communication avenues and hardware (telephone, fax, radio, wireless recovery etc.) (Sharma V.K., 2001).

There are some interest groups NGOs, such as Rotary Club, which also come forward for help during disasters. Professional societies, like those of doctors, managers, engineers, chartered accountants, lawyers, which are well organised bodies of professionals could be of immense help in disaster preparedness. However, their potential in disaster preparedness has not yet been channelised. Local Residents' Associations which cater to the welfare
of local people come to help when there are localised problems. Religious and charitable bodies become very active during any disaster and are able to raise resources and a large number of volunteers. They have capabilities to cater to feeding mass gatherings, which are required during disasters. This was witnessed during the floods in Mumbai in August 2005. Educational Institutions can spread the basic tenets of disaster preparedness from early childhood. They can get students and their parents involved in disaster preparedness activities.

10.4 ROLE OF COMMUNITY-BASED ORGANISATIONS

Affected communities always are the first responders to disasters. Hence emphasis is being laid on Community-based Disaster Preparedness (CBDP). For example, after the Orissa super cyclone, NGOs involved in rehabilitation work initiated steps to strengthen community level preparedness as a necessary component of their humanitarian intervention. UNDP and Orissa State Disaster Mitigation Authority (OSDMA) have jointly undertaken Community-based Disaster Preparedness Programmes in 144 vulnerable blocks of Orissa under the Disaster Risk Management (DRM) Programme being coordinated by the Union Home Ministry. DRM involves preparation of contingency plans based on local resources and hazard mapping, risk and vulnerability assessment, formation of disaster task forces at Village, Gram Panchayat, and Block levels involving key stakeholders, and training these task forces in search and rescue operations, relief and emergency shelter management, regular mock drills, etc. Women self-help groups, farmers, fishermen, schoolteachers, anganwadi workers actively participate in this process (Sanyal, 2004). We have discussed in detail about this in Unit 6 of this Course.

Community-based organisations have an important role in expediting the recovery process including personal recovery of individuals, repair or replacement of physical assets. These organisations:

- Offer mutual support and solidarity
- Strengthen people's ability to face crisis
- Generate consciousness, awareness, discussion, analysis of issues of common concern
- Enable people demand an access to services offered by government agencies; and
- Organise collective acquisition of skills and knowledge in varied spheres (Medury, 2001).

In the aftermath of earthquake in Maharashtra in 1993, the Maharashtra Earthquake Emergency Rehabilitation Programme (MEERP) was started. Under this, the 'Samvad Sahayaks' or village communication assistants and women's groups acted as an interface between the people and the administration. They initiated efforts to strengthen the capabilities of all those involved in the programme such as women's groups, representatives of gram panchayats, bankers, house owners and community through information, education and training. This programme has the following components:

- Information dissemination
- Education and skills on earthquake-resistant construction

Motivating house owners to build earthquake-resistant houses

- Forming collectives for construction management
Settlement planning exercises and resources mapping

Problem-solving of individual beneficiaries (SPARC-SSP, 1998).

The community-based organisations play a vital role in working with people at the grass root level and build their cooperation. Efforts need to be made to orient these organisations towards certain key aspects of disaster management such as vulnerability analysis, risk assessment, disaster mapping, preparation of community-based disaster preparedness plans, methods of community resource mobilisation and utilisation and post-disaster rehabilitation. In Orissa, after the super cyclone, self-help groups have been formed in some districts where the members have been given training in livestock management and fodder cultivation. Also, revolving funds have been created to initiate livestock related and other economic activities.

10.5 ROLE OF COMMUNITY

Community as an institution in itself is emerging as the most powerful entity in the entire mechanism of disaster management. In the event of actual disasters, the community, if well aware of the preventive actions it is required to take, can substantially reduce the damage caused by the disaster. It is the community especially at the grass roots level, which faces the wrath of disasters. Hence mitigation, preparedness efforts, and emergency response system need to be strengthened at the community level. Awareness and training of the community is particularly useful in areas that are prone to frequent disasters. The efforts of people in certain areas are laudable, where communities have formed their own organisations that take initiative in such situations.

It is also known that local communities have an active part to play before and after disasters because:

- A good state of preparedness before a disaster strikes may reduce its impact.
- More number of lives can be saved during the first few hours after a disaster has occurred, before help arrives from elsewhere. The numerous problems of survival and health resulting from a disaster are dealt with more efficiently, if the community is active and well organised (Lotto, 1989).

One such community-based organisation is the Village Task Force formed in villages of Andhra Pradesh by the Church's Auxiliary for Social Action (CASA). The Village Task Force has been trained in emergency evacuation and relief within the village. The people themselves elect the members of task force and during disasters it serves as the nodal body at village level, which has to mobilise resources for the community and disseminate necessary information passed on by outside agencies.

In South Asia, the Bangladesh Red Cross has been successful in establishing a community-based early warning system in cyclone-affected districts in collaboration with IFRC. The Disaster Mitigation Institute in India is working with community in flood and drought-prone areas in the States of Rajasthan and Gujarat. Community-based Disaster Preparedness Programmes (CBDP) are being initiated in several countries. In India, with the active role being played by Panchayati Raj Institutions, in developmental activities, efforts are initiated to strengthen the capacities of these functionaries to enable them work with the communities.

A community-based disaster management approach enables the community to assess their vulnerability to disasters, examine their strengths, capacities, resources, set goals, draw suitable programmes, prioritise the activities, mobilise and distribute resources. While the
community as an effective institution is yet to take shape with low literacy levels and widespread poverty, considerable efforts are being made to form and strengthen community-based organisations at grassroots levels. Over time, the component of community preparedness has gained considerable significance in handling disasters. If human intervention can be listed as the cause for increase in the scale of destruction then it is through community preparedness that the intensity can be reduced. In such circumstances, adhering to building byelaws and standards could be crucial.

Creating awareness among the community through education and training and information dissemination about disasters and empowering them to cope with hazards constitute mitigation strategies. The objective should be to enable the community take action for itself. Disaster mitigation strategies aimed at reducing the scale of destruction need to focus on the section of the population that is vulnerable and is at a greater risk of being exposed to the adverse impact of disasters. Socio-economic, cultural practices etc., have made them weak and put them in a disadvantaged position. Most of the time, the measures and efforts taken by them go unnoticed such as the coping strategies adopted by women in disaster situations, which need to be brought to light.

Public-private-people Partnership

The role of Public-private-people Partnership (PPP) in disaster preparedness and mitigation cannot be over emphasised. Public Private Partnership involves a triangular partnership of Government-NGO-People with the involvement of the Gram Sabha especially at the grass root level for an "enduring partnership".

The PPP represents an opportunity for NGOs to "link the community to the permanent development agency", namely the government, and to enable people benefit from various government schemes through an organised effort. PPP entails transparency and accountability. It provides an opportunity for people to have a say in the activities. PPP generates better understanding with the government at different levels. It helps establish the NGOs' credibility in the government machinery.

The housing reconstruction programme following the aftermath of Gujarat earthquake is a participatory programme with emphasis on multi-hazard resistant construction and capacity building. The basic approach is owner-driven reconstruction. People themselves reconstructed their houses with the assistance of the government. In addition, NGOs have undertaken construction of some houses under the 'public-private partnership programme'. Under the public private partnership programme, 42,526 houses were to be reconstructed out of which 41,528 houses have been completed by October 2003. Thus NGOs have participated in twenty per cent of the houses to be reconstructed (Misra, 2004).

The private sector in India has always played an important role in disaster management. The corporate sector being a repository of resources in terms of personnel, materials, finance, mobilises efforts during crises. The Confederation of Indian Industry (CII) is playing a key role in areas of disaster preparedness and mitigation. The Ministry of Home Affairs, recognising the importance of safety of built environment, had initiated interaction with the construction sector organisations for integration of disaster-resistant and safe construction practices in upcoming constructions. It has held discussions with the Builders' Association of India (BAI) and the Construction Federation of India (CFI), with a combined membership of over forty thousand construction companies for seeking their association with the disaster management framework.
10.6 ROLE OF FAMILY AND INDIVIDUALS

During the disasters, the people have to act instantly. If a disaster occurs without any warnings or predictions or at a large scale than predicted, the first activity for an individual is to save the lives of dear and near ones, protect the valuable documents and properties, and later should join others in rendering all possible help to the unfortunate and the needy ones. All concerted action should be taken together to prevent the loss of lives and property of the society as a whole (Arunachalam, 2004).

An individual is a basic unit of society, whose family comes next. If individuals and families are well prepared for disaster, the nation will be prepared for disasters. It is the individual attitude towards disaster preparedness which could reduce the risk to life and property. Each family should have a family disaster plan and family disaster supplies kit, ready at all the times. We give below guidelines for preparation of family disaster plan and a list of family disaster supplies kit. These are just guidelines and families should modify according to their special needs.

Family Disaster Plan*

- Be familiar with the types of disasters that are most likely to happen in your area and discuss with your family.
- Evolve ways of preparing for each type of disaster and discuss with your family.
- Find out how to help the elderly, expectant mothers, physically challenged or children, if needed.
- Enquire about the disaster plans at your work place, your child's school and other places where your family spends time. If they do not have plans, persuade them to have.
- Fix two places to meet:
  a) right outside home in case of sudden emergency, like a fire.
  b) outside neighbourhood in case you can't return home.
- Keep the addresses and phone numbers of important places.
- Have a friend from a place other than your place of living as "family contact."
- Discuss what to do in an evacuation.
- Always keep emergency contact numbers.
- Teach children how and when to call 100 or emergency medical service.
- Show each family member how and when to turn off water, gas, and electricity at the main switches.
- Have adequate insurance coverage.
- Have fire extinguishers and demonstrate its use.
- Conduct periodically a home hazard hunt.

Disaster Preparedness: Role and Responsibilities of International Agencies, Non-governmental Organisations, Community-based Organisations, Community and Media

- Get trained in first aid.
- Collaborate with your neighbours, and share information special skills.

**Family Disaster Supplies Kit**

1) **Water**: Store in plastic containers. Keep at least a three-day supply of water for each person in your household.

2) **Food**: Store at least a three-day supply of non-perishable food, that requires no refrigeration, preparation or cooking and little or no water. Select foods that are compact and are of light weight

3) First Aid Kit, including medication

4) **Tools and Supplies**: Battery operated small radio and extra batteries.
   - Cash
   - Compass
   - Screw Driver
   - Plier
   - Sanitary items
   - Tape
   - Matches in Waterproof Container
   - Plastic Sheet
   - Flash Light.

5) **Clothing and Bedding**: One complete change of clothing per person.

6) **Special Items for**
   - Women and children
   - Old persons
   - Physically challenged.

7) Important family documents in a waterproof portable container.

### 10.7 ROLE OF MEDIA

Media, which can be print, broadcast or display is an organised means of reaching a large number of people, quickly, effectively and efficiently. The suggestive, informative and analytical role of the media must form a key component of disaster education. It is the most potent way of educating the community on disaster prevention, mitigation and rehabilitation. These tasks can be carried out on the basis of the dual role of media related with imparting information and analysing disasters discerningly. The effects of disasters need to be examined not only in technical and scientific terms, but also in...
humanitarian, social and economic terms.' The media can play an important part in this direction (Sahni and Dhameja, 2004).

Media can play an important role to highlight the vulnerable conditions of the community that is acutely affected at the time of disaster and can become an active medium for community awareness. The Press Council of India celebrates the annual Press Day on November 16 each year. The Press Day on November 16, 2000 was observed with the theme of "Role of Media in Disaster Management - Preparing People to Cope with Disasters." The National Seminar which was organised emphasised that there is need for disseminating preparedness aspects of disaster management among all sections of society and making special provisions for the more vulnerable sections of the community viz., women and children.

By media, we generally imply the important channels of mass communication. This includes television, radio, newspapers, magazines, audio and videocassettes as well as movies. The electronic media have during recent times emerged as a major component of disaster management, as amply demonstrated in the aftermath of the Jammu and Kashmir earthquake in 2005. Special emphasis is laid on the role of electronic media and information technology as it is felt that this sector needs to be integrated not only the disaster response but the overall disaster management strategy.

Role of the print media is also important, as this continues to be the medium of mass media in many parts of the Indian society which are still unreachable by the electronic media. The print media have a major role to play in the pre-disaster prevention, mitigation and preparedness activities through appropriate community awareness generation.

India is heterogeneous and we have to use a mix of several forms of media including traditional public address systems, gram choupals, nukkad meetings, announcements by public address system, melas and fairs for disaster preparedness. Media can communicate the results of surveillance of the environment and could warn people of impending weather related disasters. If necessary and advised by the authorities, media could spread the message for evacuation and keep people updated with latest happenings in the event of disaster. They could also educate people for long-term preparedness.

Media need to be proactive in nature rather than reactive. They have to disseminate the right type of information at the appropriate time. For instance in India, the reach of radio and television to the masses, in providing information is getting organised. But there is a need to bring in professionals in these channels to enable people comprehend the information and accordingly respond and take action. For instance, the involvement of professional meteorologists or training of media experts in providing weather-related information would definitely make an impact.

10.8 CONCLUSION

In sudden and catastrophic disasters, role of international agencies is significant due to their having the expertise in their field of activity as the local government lacks the necessary expertise. A number of UN organisations are involved in disaster management. Since no government can manage a disaster effectively with the help of NGOs, CBOs and the local community it is in a better position to tackle disaster management. Many NGOs are doing a commendable work. Individuals, families and communities need to be trained for disaster preparedness. Media has an important role to play in informing and
educating people in this regard. Proper reporting during disasters by the media can help people in coping with disasters.

10.9 KEY CONCEPTS

Hazard Mapping: It is the process of determining geographically, where and to what extent, a particular disaster or hazard is likely to pose a threat to people, property, infrastructure and other activities.

Logistics and Inventory Management: It involves activities encompassing transportation, inventory, warehousing, material handling and packaging. Inventory includes the amount of raw materials, spare parts, semi-processed material etc.

Risk Mapping: Here an assessment of levels of expected losses likely to occur in specific areas, during a particular time period due to specific disaster hazards is done and results are presented on a map.

10.10 REFERENCES AND FURTHER READING


Arunachalam, N.V, 2004, ABCD...of Natural Disaster and its Effect on Intelligentsia, Proceedings Volume 1 of World Congress on Natural Disaster Mitigation, Institution of Engineers (India), Kolkata.


Medury, Uma, 2001, "Coping with Disasters: A Community Based Approach" in Pardeep Sahni, Alka Dhameja and Uma Medury (Eds.), Disaster Mitigation: Experiences and Reflections, Prentice of Hall India, New Delhi.

Misra, P. K, 2004, Transforming Adversity into Opportunity: Experiences from the Gujarat Earthquake Reconstruction Programme, Proceedings Volume 2 of World Congress on Natural Disaster Mitigation, Institution of Engineers (India), Kolkata.
Orissa State Disaster Management Authority, *Community Contingency Plan for Floods & Cyclones (Community Based Disaster Preparedness)*, Orissa, OSDMA & United Nations, Bhubaneswar.


Sahni, Pardeep and Alka Diameja, 2004, Role of Disaster Education and Training in Disaster Management, Background Material for Workshop on Disaster Management in Agriculture, National Academy of Agricultural Sciences, February, New Delhi.


Websites

http://www.ndmindia.nic.in

http://www.gsdma.org

### 10.11 ACTMTIES

1) Contact any NGO working in the area of disaster management in your local area and enquire about its activities.

2) Find out in your area about community-based disaster preparedness programme. Write a note about it and suggest ways of involving the community in a more effective way in disaster preparedness.