
UNIT 19 DISASTER MANAGEMENT STRATEGIES

Structure

- 19.0 Learning Outcome
- 19.1 Introduction
- 19.2 Changing Complexion of Disaster Management
- 19.3 Disaster Management Strategies: An Overview
- 19.4 The Path Ahead
- 19.5 Conclusion
- 19.6 References and Further Reading
- 19.7 Activities

19.0 LEARNING OUTCOME

After studying this Unit, you should be able to:

- Analyse the changing complexion of disaster management;
- Provide an overview of the disaster management strategies; and
- Project the path ahead for disaster management.

19.1 INTRODUCTION

Disasters wipe out years of development by destructing economies and causing extensive damage to lives and properties. Tsunami in Asia in 2004, Hurricane Katrina in USA in 2005, Muzzaffarabad Earthquake in 2005, to name a few, resulted in serious social and economic costs. Though a United Nations Report titled '*Living with Risk*' indicates that there has been a decline in the number of loss of lives from natural disasters, yet the prevalence of disasters is on the rise. The detrimental consequences of disasters on society, economy and environment cannot be overemphasised. The question that arises is whether the devastation and destruction are inevitable? As we have been reiterating in the Units of this Course, a certain amount of it cannot be avoided, but can be minimised through enhancing the national disaster management capacities to address the various aspects of prevention, preparedness, mitigation, response, rehabilitation and recovery. Over the last two decades, efforts towards evolving multifaceted disaster management strategies have been taken up, globally about which you have been acquainted with in the previous Units.

We have reached the Final Unit of this Course. By now you must have acquired sufficient grasp over the various facets of disaster management. In this Unit, we shall orient you about the changing complexion of disaster management and provide an overview of important disaster management strategies. Finally, we shall attempt to project the path ahead for the disaster management.

19.2 CHANGING COMPLEXION OF DISASTER MANAGEMENT

Disasters pose a threat to the development strategies of nations as they destroy the productive capacity, interrupt economic and social activities and create irreversible changes in the natural resource base. Hence, disaster management has been viewed traditionally as a strategy for preparing and managing the aftermath of the sudden events. It was always felt that disasters overwhelm the capacity of the nations and communities by causing severe hardships and loss. Gradually by 1990s, a change in the perception about disasters was visible. They are no longer considered as sudden occurrences that can be handled by emergency response and rescue services. Disaster prevention, which earlier was not a development priority, added a new dimension to disaster management. A general awareness is beginning to be generated that disaster impact can be minimised through improved development planning and implementation.

Risk reduction as a significant disaster management strategy is gaining importance. Disaster policies, it was perceived, can identify the probable risks the community faces and its capacity to withstand these. Hazards, it was realised need to be looked upon as an integral part of development process. The developmental perspective to disasters, as we have already discussed in Unit 16 of this Course, views disasters as not random acts of nature but as an outcome of poor risk management that has occurred over time. Hence risk reduction strategy is being embarked upon for achieving sustainable development and protection of people and livelihoods. Disasters currently are being seen as opportunities to capitalise on the inflow of resources for relief to promote long-term development. In a traditional sense, disaster relief and development were looked at as two distinct entities. The affected communities were considered helpless and passive receivers of aid without being involved in the process of relief and rehabilitation.

There is a distinct change in disaster management trends now as reflected in the Table below:

Table - 19.1

From	To
Helplessness of the victims	Awareness of the ability to cope
International response	National reliance
Outside response	Community self reliance
Emergency agency responsibility	Everyone's responsibility
Individual aid	Restoration of social system
Victims as receivers	Victims as actors
Good dole out	Training and Institution building
Donor focused	Victim focused

Source: *Proceedings of Third Disaster Management Practitioners Workshop for Southeast Asia, 2004.*

There is thus a paradigm shift from the traditional relief and disaster preparedness towards a developmental approach that is multidimensional incorporating a combination of strategies aiming at the institutional and community levels. The earlier emergency management approach has given way to disaster risk management. It is increasingly realised that one needs to be aware of the risks involved with disasters and handle them. According to Jerrilos (1999), this strategy focuses on the underlying conditions of risk generated by unsustainable development, which lead to disaster occurrence. Its objective is to increase capacity to manage and reduce risks and hence the occurrence and magnitude of disasters..... A disaster risk is the probability of injury, loss of life, and damage to property, disruption of services and activities and negative environmental effects.

Transformation in the Disaster Management Model

The traditional model of disaster management tends to regard it as a combination of a number of phased sequences of action or a continuum as indicated in the figure 19.1 below:

Traditional Model –Sequences of Action

Pre-disaster Risk-reduction Phase

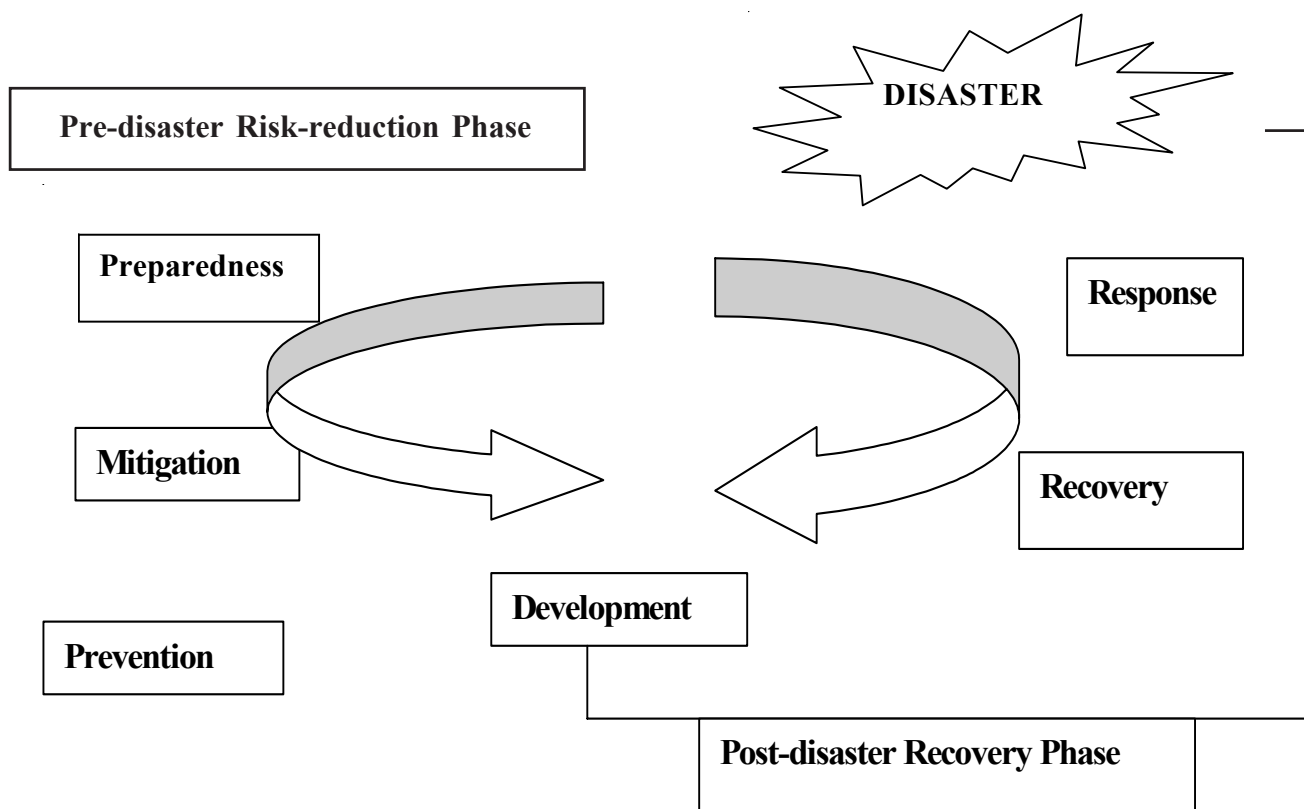


Fig. 19.1

Source: *Green Paper on Disaster Management, Department of Provincial and Local Government, South Africa.*

As you are aware, there are different phases of managing disasters from development to recovery, which have been discussed in this Course. The new model of disaster management namely the 'expand-contract' model (Fig. 19.2) explains disaster management as a continuous process. Disasters, it is felt, are managed in a parallel series of activities rather than in a sequence of action. For example, in case of any disaster such as cyclone,

the 'relief and response' strand expands to cope with the immediate effects of the disaster. Gradually, the 'recovery and rehabilitation' strand – including prevention will expand to address the rehabilitation needs of the affected community. The significance of the different strands depends on the relationship between the hazard event and the vulnerability of the community that is involved. This approach is based on the premise that disaster management includes a number of interventions and actions that may be occurring simultaneously and not always in a phased manner.

Expand-Contract Model

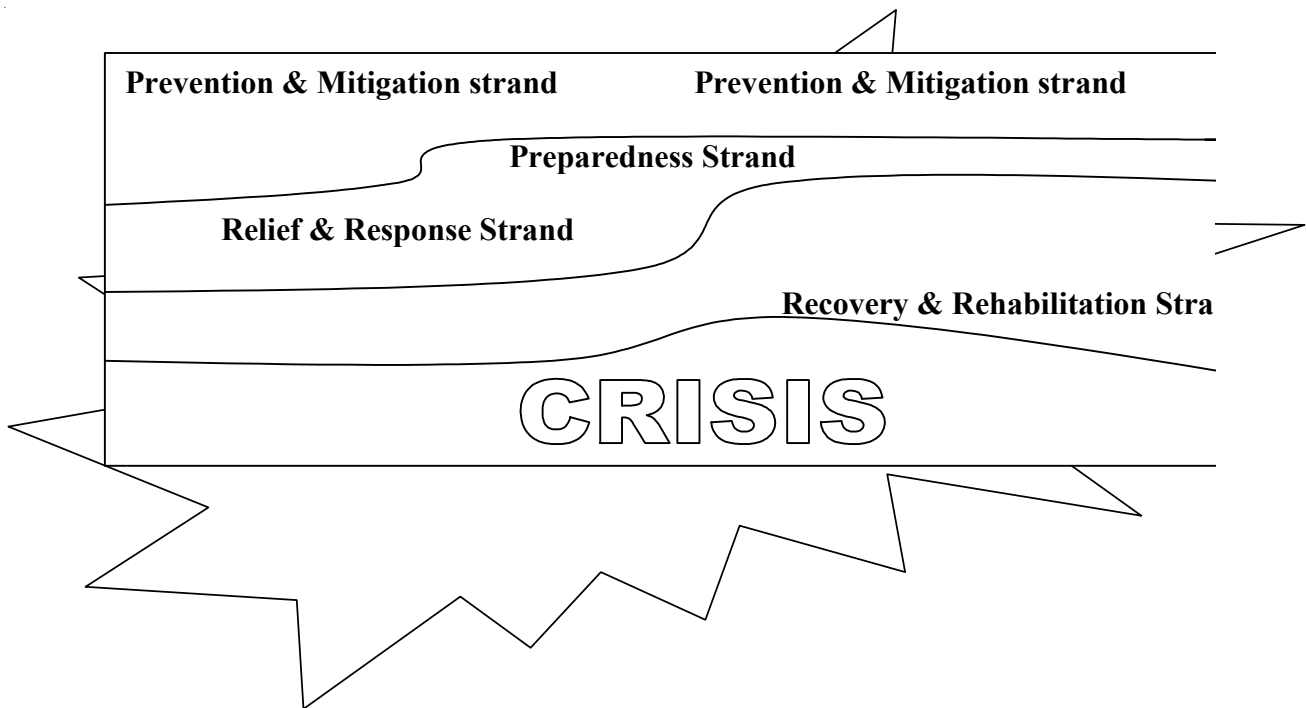


Fig. 19.2

Source: *Green Paper on Disaster Management, Department of Provincial and Local Government, South Africa*

As you all know, the national governments, non-governmental organisations, and the various agencies of United Nations have made significant strides in pursuing strategies for disaster reduction. We can say that the governance approach that is gaining importance in all spheres of activity is permeating the area of disaster management. Governance, which is wider than government, comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests. The social networks and multilevel governance processes that include public, private and community partnerships have proliferated at an accelerated pace.

Norio Okado (2005) terms the involvement of citizens, private sector, and other participatory groups in the process of disaster risk management as “Novel Public Management”. This is considered a new trend in the 21st century. Its features are:

- An emerging role of NGOs
- Innovative schemes of public-private partnership

- Increasing importance of citizen initiatives
- Institutional participatory process for multiple stakeholders
- Public information as common good and its release to society and stakeholders; and
- Growing concerns for public risk and increasing need for integrated risk management.

This new trend is considered to be a turning point in disaster prevention. The emerging role of NGOs in civil society, increasing significance of government private sector partnership and extending spectrum of social services are the characteristics of this perspective which is required to be integrated within the framework of disaster risk management.

The contemporary challenges are to manage the human safety and security. A strategy that provides for identification, assessment and management of risks arising out of disasters is gaining importance. It is a prerequisite for sustainable risk reduction in developing countries. New strategies for crises management in the present day globalised world are emerging. What is required is to bring in appropriate institutional reforms, building the capacities of human resources, enhancing the government's ability to govern and manage effectively in the transformed environment. We need to examine the strategies being evolved at different levels of governance from the national to local level. In the next Section, we shall provide you with an overview of the key strategies.

19.3 DISASTER MANAGEMENT STRATEGIES: AN OVERVIEW

It is being realised that disaster management ought to be given a proper policy direction and any strategy needs to adhere to the following principles:

- Fostering a culture of prevention
- Identifying the key issues to be addressed especially in the development process
- Permeating the concern for disaster risk reduction across all levels of government
- Evolving equitable, consistent and fair mechanisms of provision of disaster assistance
- Providing transparency, participation and exchange of information
- Taking cognisance of local conditions and environment
- Devising efficient, effective, flexible, adaptive and sustainable strategies; and
- Introducing a multidisciplinary and integrated approach to manage disasters.

To recapitulate, a beginning in evolving a disaster management strategy was made in May 1994, with the Yokohama Strategy emanating from the International Decade for Natural Disaster Risk Reduction. The Yokohama strategy emphasised that disaster prevention, mitigation and preparedness are better than disaster response in achieving the goals and objectives of vulnerability reduction. The Yokohama Strategy for Disaster Reduction centered on the objective of saving human lives and protecting property. The strategy focused on:

- Development of a global culture of prevention

- Adoption of a policy of self-reliance in each vulnerable country and community
- Education and training in disaster prevention, preparedness and mitigation
- Development and strengthening of human resources and material capabilities and capacities of research and development institutions
- Involvement and active participation of the people
- Priority to programmes that promote community-based approaches to vulnerability reduction
- Effective national legislation and administrative action
- Integration of private sector in disaster reduction efforts
- Involvement of non-governmental organisations; and
- Strengthening the capacity of the United Nations system in disaster reduction

As you all know, the International Strategy of Disaster Reduction (ISDR) pronounced in 2001 as a follow up to the International Decade for Natural Disaster Reduction (IDNDR), intended to enable all societies to become resilient to the effects of natural hazards and related technological and environmental disasters to reduce human, economic and social losses. The ISDR considered that appropriate disaster reduction strategies and initiatives at the national and international level, as well as the implementation of United Nations Agenda 21 can strengthen the likelihood of reducing or mitigating the human, economic and social losses caused by disasters and thereby facilitate sustained growth and development. It called for participation of communities as an essential element for successful disaster reduction policy and practice. Vulnerable communities, especially in developing countries demonstrate extraordinary capacities to prevent such losses. The strategy emphasised on the need to create disaster resilient societies and prevent human, economic and social losses through public participation at all levels of implementation of the strategy.

The World Conference on Disaster Reduction held in January 2005 at Hyogo, Japan identified the specific gaps arising out of the Yokohama strategy. These are:

- Governance: organisational, legal and policy frameworks
- Risk identification, assessment, monitoring and early warning
- Knowledge management and education
- Reducing underlying risk factors; and
- Preparedness for effective response and recovery

The Conference adopted the framework for Action for 2005-2015 as *Building the Resilience of Nations and Communities to Disasters*. It promoted a strategic and systematic approach to reducing vulnerabilities and risks to hazards. The Conference identified the following strategies:

- Effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness, and vulnerability reduction.

- Development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards; and
- Systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.

The prevailing disaster management approaches and strategies are propagating a comprehensive approach towards handling disasters. Effective, holistic, and proactive disaster management strategies focusing on disaster risks, vulnerability of communities, and multilevel and multidimensional coordination among all stakeholders are emerging. We have already acquainted you with the basic tenets of Total Disaster Risk Management Approach (TDRM) in Unit 2 of this Course. This approach builds on the gains of the International Decade of Natural Disaster Reduction (IDNDR), the International Strategy for Disaster Reduction (ISDR) and other existing endeavours. It integrates the existing knowledge and techniques on disaster reduction and response and risk management. Inherent to this approach is effectively communicating the knowledge techniques at all levels and facilitating the appreciation of governments of the relevance of disaster risk management in achieving sustainable development objectives. We have discussed in detail the strategies of the approach in Unit 2 of this Course.

USAID's Disaster Mitigation Strategic Objective emphasises preparing for and responding to natural disasters. This strategy targets the following broad sets of beneficiary groups:

- At-risk population for example, women, children, scheduled castes and tribes in high-risk disaster prone communities
- Service providers, for example, first responders
- Public and private partners for example, banks, insurers, NGOs, business aid
- Government of India, public policy makers, military, police and disaster management officials.

This strategy has the following components:

Increased Community Preparedness to Mitigate and Manage Disasters

This encompasses:

- Community level disaster planning
- Drought Mitigation
- Public awareness and Information campaigns
- First responder training
- Hospital preparedness
- Exposure to “best practices” opportunities (in-country, regional and international)
- Building code enforcement
- Weather and flood forecasting; and

- Early warning systems

Improved Capacity of Public and Private Partners to Meet Critical Needs of Vulnerable Groups in Disaster Situations

This includes:

- Incident command systems training
- Search and rescue operations
- Stockpiling of relief supplies
- Partners training for capacity building; and
- Coordination of international relief resources

Facilitated and Expedited Reconstruction and Rehabilitation in Accordance with Sound and Equitable Standards

This involves:

- Retrofitting of public buildings
- Support for materials stockpiling for reconstruction inputs
- Microfinance support for affected small-scale enterprises or the informal sector
- Training programmes for construction engineers and masons on how to build more disaster-resistant structures; and
- Information system support to promote transparency and equity in Government of India and private sector disaster response

It is evident that the major goal is to reduce disaster risk. In tune with this, the strategies veer around:

- Institutionalising National Systems and Capacities for Disaster Management
- Constitution of Disaster Management Authorities at National, State, and District Levels
- Strengthening Governance Mechanisms at the Local Level
- Building Community Resilience
- Reducing the Vulnerabilities of the Communities at Risk; and
- Fostering Public Private People Partnership.

We shall examine these strategies in brief now:

Institutionalising National Systems and Capacities

The Government of India has adopted mitigation and prevention as essential components of the development strategy. The Tenth Five Year Plan document incorporated a detailed Chapter on Disaster Management. The plan indicated that to move towards safer development, development projects should be sensitive towards disaster mitigation. The design of development projects and the process of development should take the aspect

of disaster reduction and mitigation within its ambit; otherwise the development ceases to be sustainable and eventually causes more hardships and loss to the nation.

The terms of reference of the Twelfth Finance Commission were modified and it was mandated to look at the requirements for mitigation and prevention apart from its existing mandate of looking at relief and rehabilitation. The Government of India has issued guidelines that where there is a shelf of projects, those addressing mitigation will be given a priority. It has also been mandated that each project in a hazard prone area shall have disaster mitigation / prevention as a term of reference and this needs to be reflected in the project document.

Constitution of Disaster Management Authorities at National, State and District Levels

The National Disaster Management Authority (NDMA) has been constituted in December 2005 consisting of the Prime Minister of India as the Chairperson and other members not exceeding nine to be nominated by the Chairperson. The National authority subject to the provisions contained in the Act shall have the responsibility for laying down the policies, plans and guidelines for disaster management for ensuring timely and effective response to disaster.

Every state government also is to establish a State Disaster Management Authority consisting of the Chief Minister of the State as the ex-officio Chairperson and other members not exceeding eight to be nominated by the Chairperson of the State Authority. This authority has the responsibility for laying down policies and plans for disaster management in the State.

A District Disaster Management Authority for every district is to be constituted by the state government. This is to consist of the Collector or District Magistrate or the state government may prescribe Deputy Commissioner as the Chairperson in ex-officio capacity and members not exceeding seven as.

Strengthening Governance Mechanisms at the Local Level

The modern disaster management practice recognises the strengthening of disaster management capacities at the district level and below, as this is the cutting edge of governance. There are efforts made to reach out to local governments to help them build local capacity, acquire knowledge and resources and provide them with decision-making authority.

The formulation of District Disaster Management Plan (DDMAP) can serve as an effective strategy to address the district's response to disaster situations. It can act as a multi-hazard response plan for the disasters and provide for the institutional framework required for managing such situations. The DDMAP can serve as an effective tool to:

- Improve preparedness at the district level through risk and vulnerability analyses
- Ascertain the inventory of existing resources and facilities available with the various agencies at the district level
- Use scientific and technological advances in Remote Sensing, Geographical Information System, etc., in preparation of the plan; and
- Develop a framework for proper documentation of future disasters in the district.

The 73rd Constitutional Amendment has conferred Constitutional Status on the Panchayati Raj Institutions (PRIs) in India. Sensitisation, training and orientation of the PRI members can go a long way in effective disaster management. The Eleventh Schedule of the Constitution identifies key areas for developmental schemes for PRIs. These include land improvement, minor irrigation, education, poverty alleviation programmes etc. The PRIs can incorporate mitigation component in every development project in these areas. The primary responsibility for managing any kind of disaster at the local level lies with the local governance institutions apart from the community organisations and NGOs. The local governments are best positioned to provide the necessary leadership and direction and shoulder responsibility for providing succour to the victims and also contribute in ensuring long-term risk reduction.

Osborne and Gaebler, who propagated the concept of entrepreneurial government, are of the view that the right kind of government redefines its role to be a catalyst and facilitator. Such governments will tend to define problems and assemble resources for others, while at the same time improve coordination between NGOs and the community. In the wake of this paradigm shift, one important strategy could be to build the capacities of local governments. This can be through the following ways:

Human Resource Development: This will include equipping the local government officials with an understanding of prevalent hazards, vulnerabilities and capacities in their local area of operation, the necessary risk assessment skills and knowledge of risk management approaches.

Institutional Development: This will entail improving management structures to strengthen capacity to act as a facilitator for coordination between the organisations and communities involved in disaster management and encouraging information dissemination for increased disaster awareness amongst the communities.

Legislative Development: Making legal and regulatory changes to enable local governments to enhance their capacities to allocate financial resources for disaster management, develop disaster plans, integrate mitigation strategies into the development process and involve business community, neighbourhood associations; builders and media in risk reduction planning (Mehta, 1999).

Building Community Resilience

Resilience is the capacity to cope with unanticipated dangers after they have become manifest, and learning to bounce back. All individuals have resilience but the degree to which one is able to cope with an adversity varies. Whenever a disaster occurs, the portrayal by media indicates or reflects that the communities are helpless and can be saved only through aid from outside. Though initially some assistance is required, later the way people pull together and rebuild their lives is quite amazing. So the people have the capacity to survive, adapt and bounce back after a crisis. Hence over time, strengthening or building the resilience of communities has become a key strategy at the global level.

There is a shift from vulnerabilities to capacity assessment and building, particularly of the community. The approach is more community-based about which we have already discussed in Unit 9 of this Course. The following table indicates the features of traditional and community-based approaches:

Features	Traditional	Community-based
Locus of concern	Institution	Community
Participation	Token	Dominant to control
Decision making	Top down	Bottom up
Main actors	Programme staff	Community residents
Resources	Programme based	Internal resources
Main method used	Extension services	Community organising
Impact on local capacity	Dependency creating	Empowering

Source: *Proceedings of Third Disaster Management Practitioner's Workshop for Southeast Asia, 2004.*

The building of disaster resilience at community level is only the beginning of the strategy. To ensure a wider impact on managing disasters, the message of risk reduction needs to be broadened. In Andhra Pradesh the efforts made by the rural community in the drought affected village Zaheerabad in Medak District reveals how with the right help, communities can build their resilience. Low rainfall and deforestation have left the soils arid and eroded. Also much of the crops viz., wheat, rice and cotton are prone to pests and require expensive fertilisers and pesticides.

A Local NGO, viz. Deccan Development Society (DDS) employs various strategies to help increase local resilience. These are:

- Forming women's collectives and encouraging collective farming by women
- Initiating programmes to restore arid land back into a productive asset
- Promoting afforestation and mini-watershed management; and
- Creating community gene and grain fund

DDS works with local communities to enable them cultivate idle land and reintroduce customary farming practices. Local food grains, which are drought resistant and less dependent on expensive and external inputs, are grown. The grain, which is grown, is stored in each village and it is the Community Grain Fund (CGF). Each community identifies poorest households who buy the grain at the subsidised rates. The money earned becomes a revolving fund. Three principles - local production, local storage and local consumption distinguish DDS's strategy from the government managed public distribution system.

To further boost the capacity of farming families to withstand drought, DDS promoted the innovative idea of a seed bank to rescue traditional crop varieties that thrive in arid conditions. Seeds of different varieties were collected from villages and the community gene fund has grown into a movement across the region. As the change brought about in these villages are based on knowledge, skills and resources largely internal to the community, rather than being dependent on large investments of external money or technology, this is a path that other communities in semi-arid regions may follow to create a more resilient future (*World Disasters Report, 2004*).

Globally there are several programmes and projects being taken up to strengthen community resilience. What is important to ensure its sustainability is to forge partnerships with local governance institutions, focus on mitigation measures, Information Education and Communication (IEC) activities and integrate the programmes into development plans.

Reducing the Vulnerabilities of the Communities at Risk

Vulnerability in a way implies that there is a deficit of capacities amongst the people who are at risk. What is required is to identify the different types of vulnerabilities at various levels. Efforts are being made by several organisations including the national governments to analyse the capacities and vulnerabilities.

Livelihoods are the most to be affected by disasters. Agriculture being the primary livelihood in many countries, this gets disturbed and there is always lack or under-development of secondary or tertiary sectors such as agro-based industries, processing units, etc. The traditional and crafts industries also receive a setback. Strategies to strengthen the livelihoods and provide sustainability are occupying a prominent place in disaster management.

In the development field, the sustainable livelihoods (SL) approach first promoted by Chambers and Conway (1992) has become an important organising framework for the efforts of a wide range of multilateral agencies, donors, NGOs, and government bodies. SL is concerned with the potentials, competence, capacities and strengths-rather than weaknesses and needs of the communities. It recognises a range of strengths or assets – called ‘capitals’ to sustain a livelihood. These include:

Natural Capital: This includes water, land, rivers, forests and minerals necessary for the survival of both rural and urban population.

Financial Capital: Access to financial capital such as income, savings, remittance, and credit is a critical resilience factor.

Human Capital: Human capital in the form of knowledge, skills, health and physical ability determine an individual’s level of resilience more than any other asset.

Social Capital: In the sustainable livelihoods context, it is taken to mean the forms of mutual social assistance upon which people draw. These include networks such as clan or caste; membership of more formalised groups such as women’s associations etc.

Physical Capital: It comprises the basic infrastructure, goods and services needed to support sustainable livelihoods including secure shelter and buildings, clean water supply, sanitation, access to information and communications (*World Disasters Report*, 2004).

In India, there are attempts to reduce the vulnerability of communities through strengthening the employment and livelihood strategies. There are several schemes such as Food for Work, Integrated Child Development Scheme, Drought Prone Area Programme, etc. Micro-finance is increasingly being used to create safety nets. The Self Employed Women’s Association (SEWA) along with International Fund for Agricultural Development (IFAD), the World Food Programme (WFP), Government of India and Government of Gujarat, has launched a seven-year livelihood security project *Jeevika*. It organises women into Swashrayee Mandals and provides them loans, and also inculcates a culture of savings among the rural poor that helps them during crises.

The Food and Agriculture Organisation (FAO), realising the interdependence amongst poverty alleviation, development and disaster risk reduction, has initiated a programme on *'The Role of local level institutions in reducing vulnerability to natural disasters'*. It aims at promoting local capacities and local organisations to participate actively – in the design and implementation of locally adopted disaster risk prevention and management strategies. This is in operation in several developing countries such as Philippines, South Africa, Argentina, Vietnam, Iran, etc. Its key strategies include:

- Inclusion of disaster prevention and mitigation components in rural development plans
- Disaster preparedness and contingency planning at district and community levels
- Integrated land use and watershed management
- Social capital formation and enhancing social safety nets
- Recognition and enhancing the local knowledge specifically on risk identification and monitoring, early warning etc., and
- Improved vulnerability assessments and vulnerability monitoring.

Fostering Public-Private-People Partnerships

Public-private partnerships are presently an important strategy of public policy implementation. This is one of the new governance models, which is being experimented in public service delivery. In crises such as disasters that involve huge resources, this is an effective strategy of mobilising private funding and technology that provide gains to the public. It brings all the concerned stakeholders on one platform to share the resources, assets, and knowledge thereby fostering beneficial relationships.

In Gujarat, the Housing Reconstruction Programme taken up in the aftermath of earthquake is a participatory programme with people undertaking the construction of the houses with the assistance of the government. The Confederation of Indian Industry (CII) is playing an important role in eliciting the support from corporate sector in disaster management activities. The Ministry of Home Affairs is seeking the participation of the Builders Association of India (BAI) and Construction Federation of India (CFI) with a combined membership of forty thousand construction companies in the disaster management ventures.

Public-private-people partnerships foster horizontal relationships and networks in the governance process. For instance in USA, the Federal Management Agency (FEMA) was said to arrive generally after a disaster to provide emergency relief and financial assistance. In 1993, administrator James Lee Witt led a radical turnaround. FEMA officials focus more on preventing the damage from disasters through a public private and joint inter governmental effort. FEMA developed a “life cycle” mode of disaster management.

Disasters and their costs is the product of planning and mitigation that needs to begin far in advance of disasters and continue long after to prevent their recurrence. Instead of waiting for a hurricane to hit and dealing with the aftermath, FEMA officials worked closely with the state and local officials to improve evacuation plans. They built partnerships with the construction industry to design and build more houses that are hurricane resistant. FEMA, in short, moved from limited forms of direct service delivery to a complex network-based approach that stretched from federal government into state and local governments and the private sector (Kettl, 2000). Public-private-people partnerships is an

important strategy that brings about devolution of function, sharing of responsibility, extended social networks where there is sharing of administrative responsibilities.

As you would have observed, all the Units dealt with in this Course dealing with various facets of disaster management have identified specific strategies. The objectives or goals the different strategies intend to promote are more or less identical. Disaster risk reduction accompanied by creating community resilience, participation, empowerment, strengthening livelihoods and integrating risk reduction with development are the prime concerns. There are the global challenges too. Having reached the end of the Course, let us now visualise and chalk out the path ahead for disaster management.

19.4 THE PATH AHEAD

The current perceptions regarding disasters need to undergo further transformation. Disasters are no longer to be considered as occurrences that are to be managed through emergency response services. Disasters, natural or human induced, can take place any time, and what is required is awareness and shared responsibility for risk reduction. This needs to be integrated with the overall development of any nation. The vital link between development and disasters is increasingly being realised and was in fact the main theme at the World Conference on Disaster Reduction held in Kobe, Japan in 2005. Disaster reduction and mitigation efforts must be “woven into the fabric of a community’s overall development” noted Jan Egeland, the UN Undersecretary General for Humanitarian Affairs.

Globally, all countries presently are working towards the achievement of Millennium Development Goals (MDGs). It was in the year 2000, when the United Nations General Assembly noted with concern the abundant inequalities in human development worldwide and recognised “their collective responsibility to uphold the principles of human dignity, equality and equity at the global level”. The General Assembly has set the following eight goals for achieving development and poverty eradication by the year 2015. These include:

- Eradicating extreme poverty and hunger
- Achieving universal primary education
- Promoting gender equality and empowering women
- Reducing child mortality
- Improving maternal health
- Combating HIV/AIDS, Malaria and other diseases.
- Ensuring environmental sustainability
- Developing a global partnership for development

The UNDP Report on *Reducing Disaster Risks* (2004), focused on integrating disaster risk reduction and development planning to meet the MDGs. It addresses the MDGs 1,3,4,6,7 and 8 as being of primary concern to disaster risk reduction on the following grounds:

MDG 1. Eradicating extreme poverty and hunger

There are many opportunities for interventions that could simultaneously reduce disaster

risk and poverty and hunger. These include:

- Strengthening and diversifying livelihoods
- Encouraging responsible foreign investment and job creation
- A flexible and participatory approach to urban planning
- Building social security, including access to health and education
- The provision of risk / loss spreading mechanisms for those excluded from insurance cover.

At levels from the individual to the national, the impact of disaster takes away the means of generating income as well as any savings and assets. It is this aspect of disaster that emphasises on pro-poor development policy, which provides an opportunity for disaster risk reduction.

Many of the tools for delivering poverty-alleviation projects and programmes need simply to be modified to take account of disaster risk reduction. The added value of such work is to enhance the sustainability of poverty and hunger alleviation.

MDG3. Promoting gender equality and empowering women

Gender influences the types of hazard to which an individual is exposed and an individual's access to resources with which to build resilience to hazard and to recover from disaster. Where structural constraints in society result in the exclusion of women from decision-making or economic security, risk will be unevenly spread.

Highlighting gender in development and disaster risk reduction raises a broader issue of inclusiveness in decision-making. To promote resilience, inclusive and consultative processes are needed that engage those most at risk. Often those at risk are the most resourceful members of society, but also the least included in economic and political life. This will include women, but also child-led households, elderly people caring for grandchildren, ethnic and religious minorities, people weakened by chronic illness and social classes and castes with low social status.

MDG4. Reducing child mortality

Children are at greater risk of being affected, injured or killed by disaster impacts than adults. For example, an estimated 114,000 school-aged children were made homeless by the Marmara earthquake in Turkey in 1999.

It is perhaps the indirect impacts of disaster that have the greatest toll on children and affect the national mortality levels. Most important here is the loss of livelihoods that can lead to extreme poverty and homelessness for children left behind.

Appropriate safety nets, such as help for extended families with capacity to absorb orphans or well run orphanages, can support many children. But for those children born into families whose livelihoods and homes have been taken by disaster impacts, the chances of survival in the first years of life will be reduced.

MDG 6. Combating HIV/AIDS, malaria and other diseases

For many people, natural hazards' stress and shock is felt as one of many pressures. HIV/AIDS and other diseases can undermine individual and collective coping capacity,

just as disaster impacts can take away development gains and livelihoods, making people more vulnerable to illness.

Interventions to strengthen basic health care provision, family health care and preventive health planning can play central roles in strengthening society and building capacity with which to resist natural hazards.

Innovative development policy is required for those instances where natural hazard coincides with high rates of illness. Ways of providing subsistence, security and education for the children of families where adults may be dead or made weak from illness are difficult to find. This is even more so when rural livelihoods are under stress from drought conditions or crops and houses and tools have been swept away by floods.

MDG7. Ensuring environmental sustainability

One of the clearest signals of a crisis in environment-human relations is in natural disasters. Soil degradation, biodiversity loss, over-fishing, deforestation or drinking water scarcity undermine rural livelihoods and pave the way for vulnerability to environmental hazard.

In cities, pollution of waterways and the air and inadequate provision of safe drinking water, sanitation or solid waste management systems shape patterns of illness that run down resistance to everyday hazards. In rural and urban contexts, risk accumulation that ends in disaster is often tied to problems of environmental sustainability. Strategies to enhance environmental sustainability will make a contribution to breaking the chain of accumulated risk.

MDG8. Developing a global partnership for development

The most important components of this goal relate to trade, debt relief and aid. Success rests to a large extent on the willingness of developed countries to meet their commitments. The 2001 Ministerial Meeting of the World Trade Organisation (WTO) in Doha, Qatar placed the needs and interests of the developing countries at the heart of WTO negotiations. However, in 2003, the subsequent stalemate in the Cancun round of WTO negotiations showed greater political will, collaborative thinking and action is required at the international level to allow developing countries to trade on a level playing field.

Increase in financial assistance may reflect an evolving change in international donor priorities. As likely is a response to increasing disaster losses as the disaster-development relationship becomes ever more tightly connected, and human and economic exposure to disaster risk grows.

ISDR has succeeded in building regional and international partnerships for disaster risk reduction and in disseminating good practice. Similarly, negotiations around the United Nations Framework Convention on Climate Change (UNFCCC), most recently centred on the Kyoto Protocol, also provide a focus for international attention that can directly address the concerns of disaster risk reduction.

These goals hence are important in crises management also. The basic components of MDGs – poverty, health, gender equality, education, environment and holistic human development are closely associated with the ability of the population to respond to disasters. Any effort towards meeting these would have to:

- Respond to the local needs

- Understand the dynamics of the local situations
- Reflect a long-term perspective
- Foster development of local capacity instead of perpetuating dependency; and
- Ensure accountability to all concerned stakeholders.

The path ahead for managing disasters is to usher in a people-centered development strategy. This has to be supplemented by:

- Systematic assessment of what enables people to cope with, recover from and adapt to various risks and adversities – at household and community level
- Strengthening social capital as the key objective of all disaster interventions, whether in relief, recovery or risk reduction – rather a by-product
- People-centered approaches to development provide models that can improve humanitarian aid and disaster risk management
- New institutional strategies and cross-sectoral coalitions to boost the resilience of local livelihoods in the face of multi-dimensional risks
- Good governance to create the environment in which more resilient communities can thrive
- Scaling up strategies based on the aspirations and capacities of people at risk (*World Disasters Report, 2004 op.cit.*).

The tendency till now has been mostly to associate disasters with negativities. We need to broaden our vision and work on the positive aspects associated with disasters as reflected below:

	Negative Aspects	Positive Aspects
D	Damage	Development
I	Interruption	Innovation
S	Severe	Sharing
A	Antagonistic	Awareness
S	Scourge	Self-Sufficiency
T	Traumatic	Transformation
E	Emergency	Education
R	Risk	Resilience

Strategies for disaster management indicate several measures both long-term and short-term. But these can give some results only if accompanied by strong political will, keenness and commitment on the part of all concerned actors involved in the exercise. Any effort needs to be outcome and result oriented with a shared vision of future environment, Institutions, mechanisms and processes are always in place and what is to be associated with it is leadership and good governance. Any policy and practice that focuses on people's strengths instead of just vulnerabilities is proactive and it is a positive

paradigm shift to deal with the marginalised sections of society.

The UNDP Report on Reducing Disaster Risks (*op.cit.*) highlighted the need for governance for Disaster Risk Reduction. According to it, governance has economic, political and administrative implications.

- Economic governance includes the decision-making process that affects a country's economic activities and its relationships with other economies.
- Political governance is the process of decision making to formulate policies including national disaster reduction policy and planning.
- Administrative governance is the system of policy implementation and requires the existence of well functioning organisations at the central and local levels. In the case of disaster risk reduction, it requires enforcement of building codes, land-use planning, environmental risk and human vulnerability monitoring and safety standards.

It identified six emerging agendas within Disaster Risk Reduction. These are:

- Appropriate governance mechanisms
- Factoring risk into Disaster Recovery and Reconstruction
- Integrated climate risk management
- Managing the multi-faceted nature of the risk
- Compensatory risk management
- Addressing gaps in knowledge for disaster risk assessment

19.5 CONCLUSION

We cannot overemphasise the detrimental consequences of disasters on economies. Many countries globally are becoming increasingly vulnerable to disasters. The situation demands formulation of appropriate strategies for managing disasters. As discussed in the Unit, risk reduction as a significant disaster management strategy is gaining significance. This strategy, due to the emergence of new trends in the arena of disaster management, assumes varying forms. There is a paradigm shift from the traditional relief and disaster preparedness approach to a development approach. We have highlighted these trends and approaches in the Unit. The changing complexion of the discipline of disaster management is analysed in the Unit. Several strategies have been pronounced over time, aimed at disaster reduction. Many international organisations also are working towards developing an integrated risk reduction strategy. The Unit discussed a few such strategies. The major strategies which have gained prominence such as institutionalising national systems and capacities, strengthening governance mechanisms at local level, building community resilience, reducing the vulnerabilities of the communities at risk and public private people partnerships are highlighted. Disaster Management has to embark upon a strategy aimed at holistic human development integrating the millennium development goals, policies and practices that harness people's strengths instead of vulnerabilities. It is a challenging road ahead for disaster management.

19.6 REFERENCES AND FURTHER READING

Abarquez, Imelda and Zubair Mursheed, 2004, *Community-based Disaster Risk Management Field Practitioners' Handbook*, ADPC, Thailand.

Asian Disaster Preparedness Centre, United Nations Economic and Social Commission for Asia and the Pacific, International Federation of Red Cross and Red Crescent Societies and European Commission Humanitarian Aid Office, 2004, *Third Disaster Management Practitioners' Workshop for Southeast Asia Proceedings*, Bangkok.

Chambers, R. and Conway G.R, 1992, *Sustainable Livelihoods: Practical Concepts for the 21st Century*, IDS Discussion Paper No. 296, Institute for Development Studies, University of Sussex.

Government of India, Ministry of Home Affairs, 2002, *Disaster Management: The Development Perspective An Extract of the Chapter in the Tenth Five Year Plan Document (2002-2007)*, New Delhi.

Indira Gandhi National Open University, 2006, *Course Material of Post Graduate Diploma in Disaster Management*, New Delhi.

International Federation of Red Cross and Red Crescent Societies, 2004, *World Disasters Report*.

Jerillos, Sonny, 1999, "Fundamentals of Disaster Risk Management: How are Southeast Asian Countries addressing this? In *Risk, Development and Disasters: Southern Perspectives*, University of Cape town, Department of Environment and Geographical Sciences.

Kettl, Donald F, 2000, "The Transition of Governance: Globalisation, Devolution and the Role of Government, *Public Administration Review*, Vol. 60, November / December.

LeHuuti, 2004, *Community-Based Disaster Risk Management Integration to Socio-economic Development Process*, UNESCAP, Bangkok.

Mehta, Aman, 1999, "Local Governments in Disaster Management", *Asian Urban Disaster Management News*, Bangkok.

UNCHS (HABITAT), *Guidelines for Operational Programme Formulation in Post Disaster Situations A Resource Guide*, Nairobi, Kenya.

UNDP, 2004, *Reducing Disaster Risk: A Challenge for Development*, New York.

Websites

Norio, Okado, 2005, "Urban Diagnosis and Integrated Disaster Risk Management".

Cemp.Louisville.edu

"Green Paper" on Disaster management, Department of Provincial and Local Government, South Africa, www.gdrc.org/uem/dissters

Guzman, M. de, Z, "Total Disaster Risk Management Approach: Towards Effective Policy Action in Disaster Reduction and Response," www.adrc.or.jp/publications/TDRM

USAID India, “Strategic Objective 3 Reduced Vulnerability to Disasters in High Risk Areas,” www.usaid.gov/in/our_work/strategy6.htm

Caldwell, Zrrin T, “Global Trends: Reducing Disaster Risks, <http://us.oneworld.net/article>

“The role of local level institutions in reducing vulnerability to national disasters and sustainable livelihood development,” www.fao.org/sd.

19.7 ACTIVITIES

- 1) Go through the newspapers, magazines or journals and analyse the changing complexion of disaster management. Write a brief note reflecting your views.
- 2) Attempt to highlight a few strategies with reference to any particular disaster.
- 3) Browse some internet websites and collect material on emerging challenges in disaster management. Highlight a few striking trends in the form of a report after discussing it with your Academic Counsellor.