

The State Disaster Management Plan

Section- V

"The Roles and Responsibilities of & Guidelines for Government Departments & Other Stakeholders"

12. The Roles and Responsibilities of & Guidelines for Government Departments & Other Stakeholders

Disaster Management is not an individual but a team exercise – a team not of individuals but of a variety of organizational setups and community clusters whom we know as Stakeholders. They are stakeholders because, directly or indirectly, their interests are somehow affected by the impact of a disaster.

Government Departments are stakeholders by their very executive concern and responsibilities towards the people in general and the victims of a disaster in particular, stakeholders other than the government departments are so because of their organizational interests and objectives or their organizational social responsibility, or organizational concern for the welfare of the people.

The stakes being different both in nature and kind, it becomes essential to place them in a position where they serve their own interest and, in the process, serve the larger interest of communities in disaster management.

The Government Departments playing lead or support roles in disaster management are :

A. Government Departments :

Out of 44 government departments presently in the State Government, 26 departments by very nature of their work, either primarily or secondarily, directly or indirectly, have to contribute in disaster management. Those departments are:

- i. Department of Home
- ii. Department of Disaster Management
- iii. Department of Water Resources
- iv. Department of Agriculture
- v. Department of Food & Consumer Protection
- vi. Department of Panchayati Raj
- vii. Department of Health & Family Welfare
- viii. Department of Education
- ix. Department of Labour
- x. Department of PHED
- xi. Department of Transport
- xii. Department of Social Welfare

- xiii. Department of Building Construction
- xiv. Department of Energy
- xv. Department of Environment & Forest
- xvi. Department of Industries
- xvii. Department of Animal Husbandry
- xviii. Department of Finance
- xix. Department of Road Construction/Rural Works
- xx. Department of Rural Development
- xxi. Department of Urban Development
- xxii. Department of Cabinet Coordination
- xxiii. Department of Rural Works
- xxiv. Department of Information & Public Relations
- xxv. Department of Planning & Development
- xxvi. Department of Minor Irrigation

In the State Disaster Management Plan the roles and responsibilities of the State and its Departments have been shifted from that of a mere **Provider** to those of a **Doer**, a **Provider** and a **Facilitator**. This has been necessitated because of the creation of specialized institutions to work on disaster management and to share most of their workload at the formulation, planning and implementation stages.

The Bihar State Disaster Response Force (BSDRF), on the pattern of the National Disaster Response Force (NDRF) and the Bihar State Institute of Disaster Management, (BSIDM) on the pattern of the National Institute of Disaster Management has been included in the Plan. These two organizational setups together shall share the Pre-and during disaster period work with the Departments. As a result, the departments shall feed them with their respective requirements in the form of programme and activities together with fund allocations and approve the final form in which they have been included in the State Plan by BSIDM.

As the Disaster Management Act, 2005 provides for the making of disaster management plan by each Government Department based on which the annual disaster management of the State shall be prepared, a provision in the Plan has been made for each department to have a Disaster Management Cell (DMC) manned at least by two Deputy Director level personnel and headed by Joint Secretary level officer. The roles and responsibility of the Cell shall be:

- To deal with disaster management related issues of the Department.
- To participate on behalf of the department in the Disaster Management related programme and activities.
- To work out annual disaster management related programme and activities of the department along with estimated budget for the same.
- To incorporate disaster management related inputs in the developmental projects of the department.
- To co-ordinate with Disaster Management Department, BSDMA, BSIDM and BSDRF on disaster issues related to department.
- To follow up with DMD and BSIDM and provide inputs in integrating its programme and activities, hazard wise or disaster related activities wise, with those of other departments.
- To monitor the implementation of programme and activities of the department.
- During disaster the officers of the Cell shall remain present at the State Emergency Operation Centre (SEOC) and shall provide required support in disaster response related requirements.
- Review the enactment administered by the department along with its policies and rules and regulations with a view to incorporate therein the provisions necessary for disaster prevention, mitigation or preparedness related inputs.
- To provide assistance as required by the Bihar State Institute of Disaster Management for –
 - a. drawing up mitigation, preparedness and response plans, formulation of capability building, training programmes, data collection and dissemination and identification and training of personnel in relation to disaster management.
 - b. assessing the damages caused by any disaster.
 - c. carrying out rehabilitation and reconstruction work.
 - d. In consultation with the BSDMA/ DMD working out the total budget out lay for the annual programme and activities.

The Disaster Management Cell shall at least have following infrastructure facilities :

- *An independent room or enclosure with sufficient space to have :*
 - i. *a computer set with all accessories like scanning, internet etc.*
 - ii. *a fax machine*
 - iii. *a photocopier*
 - iv. *an LCD TV for monitoring news*
 - v. *a dedicated phone line*
 - vi. *a fire-proof record keeping almirah*
 - vii. *a computer operator to assist the officers.*

Keeping the above multidimensional functions in view, the roles and responsibilities of each government department have been viewed and demarcated. The functions of each department have been presented from two angles: **Disaster Phase wise**, and **Hazard wise**.

1. Department of Home

The activity area of the Department of Home is whole of the State. As such, any disaster of any size touches and involves the department. The Police, the Home Guard, the Fire department, the Citizen Council and STF have to take charge of a situation and enforce and maintain law and order. The Department of Home, therefore, has to play crucial supportive roles in case of all disasters caused by any hazard.

However, in case of disaster caused by earthquake and floods all the three wings—Police, Fire & Home Guard etc.— of the department shall play major supportive role. As such, the three phases of disaster wise roles and responsibilities of the departments shall be:

A. Disaster Phase Wise

A.1 *Pre- Disaster:*

- Orientation and training of district-wise selected team of Police, Home Guard, Special Task Force and Fire departments in search and rescue, providing security in emergencies and being available where support services are required e.g. carrying of the injured, identification of the dead, keeping record of the same and handing over of the dead bodies to relatives etc.
- Training and mock drills related programmes for the selected team of police, STF, Fire, Citizen Council and Home Guard personnel.
- Co-ordination with Urban Development Department on fire safety measures in buildings and about certification of the same by Fire Department.
- Formulating policies for the creation of Fire Safety Centers and taking fire safety related measures with community level accessibility in mind and implementation of the same in focus.
- Organizing inspection of the building by the Fire Department and sending inspection report with recommendations to the party concerned and with a copy to BSDMA & DMD.
- Pressing teams of Home Guard to monitor the observance of building code, fire safety, disaster preparedness & provide support in the same.
- Enforcement of fire related measures in the existing buildings, specifically Govt., multistoried and other strategic ones.

- Purchase and distribution of Fire Safety related equipment and machinery and organize orientation and training to promote self-help and mutual help in making use of them.
- Reviewing the functioning of Disaster Management Cell and monitoring the participation of those manning the Cell in the orientation and training programmes and bringing their leanings into practice.
- To let the team of trained personnel manning the Cell continue for as long a period as possible.

A.2 During Disaster

- Chief of Police, Home Guards and Fire services to provide assistance to the State Emergency Operation Centre.
- Provide assistance of the police, home guards and fire services to the District Magistrate of the affected districts for support in search & rescue, security and other services.
- Reviewing the situation at the Department level and organizing reinforcements if required.
- Maintenance of law and order and enforcement of traffic rules and regulations at the disaster site.
- Organizing security at the Relief Camps.

A.3 Post Disaster

- Maintenance of law and order situation at the disaster site and other related places.
- Organizing security at the Relief Camps.
- Managing Enquiry Centre
- Providing Escort Services.

B. Hazard Wise

Since all disasters are basically disturbances causing loss of life and property, the Department of Home shall play major supportive roles in varying proportions. Hazard-wise roles and responsibilities of the Department, therefore, shall be

B.1 Earthquake: In Joint lead with Urban Development Department & DMD in Pre- and during the disaster phases.

- Managing security, safe-keeping of victims.

- Coordination with support organizations through District Administration.
- Providing security during visits of the incident site by authorities and VIPs
- Monitoring restoration of communication and transport services
- Providing escort services to the victims
- Identifying & maintaining records of the deceased
- Maintaining law & order

B.2 Flood: *Major Support Providing Department*

- Support in search and rescue operations being carried out by NDRF and BSDRF
- Escort services to the victims to Health Centers and Hospitals
- Organizing safe keeping of the dead bodies
- Identification and recording of the deceased ones
- Taking charge of those separated from their families
- Organizing security at the relief camp
- Maintaining law & order in the area
- Providing support in relief distribution
- Manning Enquiry Counter
- Escort Services to visitors

B.3 Fire: *Lead Department together with DMD*

- Fire extinguishing services
- Undertaking search and rescue operation
- Escort services to the injured
- Identification and safekeeping of the dead bodies
- Support in debris clearance and relief distribution
- Maintaining law & order

B.4 High Speed Wind /Gail: *Support Providing Department*

- Support in search and rescue operation
- Escorting injured to Hospitals
- Identification and safekeeping of the deceased

- Support in relief distribution
- Maintaining law & order

B.5 Traffic Accidents: *Support Providing Department*

- ***Road***

- ***Boat***

- Providing support in rescue operation
- Escorting injured to hospitals
- Identification and safekeeping of dead bodies
- Support in relief distribution
- Maintaining law & order

B.6 Human Induced Climatic Change: *Support Providing Department*

- ***Lightening***

- ***Heat***

- ***Cold Waves***

- Escorting the victims
- Identification and safe keeping of the dead
- Support in relief operation

B.7 Epidemics: *Support Department*

- Escort services to the serving team members
- Security at hospitals and health services centre
- Identification and handing over of the dead bodies.
- Supervising quick and safe disposal of dead bodies

B.8 Industrial Disaster: *Support Department*

- Sealing off the area
- Evacuation of the population in the neighborhood
- Escort service to the injured
- Identification and safe keeping of dead bodies

2. Department of Disaster Management

Department of Disaster Management is the nodal department for disaster management at all levels: State, District & Communities. All disaster management related initiatives emanate and culminate here. As such, disaster prevention, mitigation, preparedness, response, restoration and rehabilitation in all matters the department is either in the lead or in the catalytic role.

The roles and responsibilities of the department are largely three dimensional : co-ordination with the State Departments; interaction with the specialized institutions like BSDMA, NDRF, BSDRF, BSIDM, SDMA/DDMAs and engagements with multilateral agencies, NGOs, professional bodies, corporate houses, armed forces and media. These three dimensional roles and responsibilities get further primed into Disaster phase wise and, Hazard- wise.

A. Disaster Phase Wise

The Department of Disaster Management has the following roles and responsibilities in Pre-, during – and Post Disaster Phases:

A.1 *Pre- Disaster:*

As stated earlier, disaster phase wise roles of responsibilities of the department has to be viewed at three levels:

- i.** Co-ordination with the Departments of State Government
- ii.** Interaction with specialized institutions, &
- iii.** Rapport with stakeholders other than the government ones.

A.1.i. *Co-ordination with Departments of State Governmentf:*

- To Follow-up with Departments for the formation and manning of Disaster Management Cell (DM Cell)
- Orientation and training of DM Cell personnel in disaster preparedness & response
- To get Hazard-wise GIS mapping of vulnerable areas done
- To provide support to departments in preparing prevention, mitigation & preparedness measures.
- To get integrated the measures formulated by each department to make those mutually compatible and supportive initiatives for prevention, mitigation and preparedness.

- To get the initiatives classified and categorized into hazard wise and district wise.
- To supervise and monitor the implementation of the programme and activities for disaster management.
- To keep the DM Cell of each department informed/involved
- To constitute hazard-wise Incident Management Team consisting of Lead & Support Departments.
- To constitute hazard-wise Damage Assessment Team

A.1.ii. *Interaction with Specialized Institutions :*

- Staffing and operationalising State Disaster Response Force (SDRF), Bihar State Institute of Disaster Management (BIDM), State Emergency Operation Centre (SEOC), Districts Disaster Management Authority (DDMAs) and District Emergency Operation Centres (DEOCs).
- To formulate Standard Operating Procedure (SOP) to combat disasters and oversee its compliance.
- To have periodic co-ordination meetings of DM Cell, specialized institutions and other stakeholders.
- To update and refresh the networking with specialized institutions at the national and international level.
- To create and update disaster management related databank, phone nos., name and address for use during response period.
- To position and strengthen Civil Defense modalities at appropriate levels and equip them to work as Disaster Management Support Force (DMSF).
- To get organized mock drills at the State and district level to cultivate in all concerned the habit to respond in a well prepared manner.
- Through concerned DM Cells to get the ground level information and data gathering and delivery system installed, periodically checked, repaired and maintained so that Early Warning System could really be early in sending warnings.
- To get the hazard wise and departmental need wise GIS mapping done and make the same available to concerned DM Cell for the need based formulation of prevention,

mitigation and preparedness related programme and activities.

A.1.iii. Rapport with other Stakeholders:

During disasters a host of multilateral, bilateral, international NGOs, professional bodies, corporate houses, local bodies and civil societies extend their helping hand in relief and disaster response related operations so much so that most of the materials and resources remain unused and subsequently become problematic to keep them properly for future use. But, during Pre-disaster days these stakeholders remain dormant perhaps because either they are not approached with proper proposals or do not visualize any role for them to play.

Thus, the vast pool of material and human resources in the form of other Stakeholders are required to be tapped and mainstreamed. In the mainstreaming of other stakeholders the Department of Disaster Management shall keep in view some of the needs noted below:

- Strengthening of EOCs.
- Strengthening of Early Warning System
- Awareness generation programme and activities
- Capacity building of stakeholders and responders
- Vulnerable area adoption for the implementation and maintenance of disaster prevention, mitigation and preparedness measures

A.2 During Disaster

During disaster caused by any hazard the Department of Disaster Management shall be the main lead organization with following roles and responsibilities

- To command and coordinate the disaster response operation
- To dispatch NDRF & BSDRF to the incident site
- To call the hazard wise concerned Incident Management Team
- To alert the higher authorities
- Media briefing and information dissemination.
- Resource allocation to the districts for combating disaster situations.
- To organize/coordinate the setting up of Relief Camps, Health Camps, Livestock Shelters, Distribution of Relief etc.

- To organize the restoration of communication, transportation
- To organize clearance of debris
- To organize receiving of relief materials
- To send reinforcements at the incident site if required
- To organize relief distribution
- To hold meeting with donor agencies
- To organize disposal of dead bodies both human and livestock

A.3 Post Disaster

- To select the sight for resettlement of victims
- To get the resettlement plan prepared
- To firm up resources
- To deactivate the response operation but continue with relief and other support services operations
- To start rehabilitation
- To dismantle relief camp and support services in a phased manner

B. Hazard Wise

Hazard wise roles and responsibilities of the Department of Disaster Management shall be at two levels: at the level of Lead Department and at the level of Support Department.

B.1 Earthquake:

- To form the Incident Management Team
- To form the Damage Assessment Team
- To organize orientation and training of responders including community in disaster management
- To coordinate with relevant departments regarding enforcement of Building Codes, Fire Safety Rules and Certification of Building etc.
- To follow-up with Road & Building Construction Department about the availability of heavy duty cutting, debris clearing machines, their specifications, placement, storage and their operators & upkeep of the same for ready use.

- To follow-up with concerned agencies about the arrangements for putting up stop gap bridges on emergency basis & formation and training of the team for the erection of temporary bridges.
- To follow-up with BSNL about the arrangements for the restoration of communication system & act accordingly
- To follow-up with Health Department about facilities available, both in private & public sector, for health services in emergencies in vulnerable areas and act accordingly
- To follow-up with PHED about the drinking water facilities created in the vulnerable areas and Department's readiness to provide the same in emergencies & act accordingly
- To follow-up with Energy Department about arrangements for the restoration of power supply and providing for supply of power through alternative sources of energy & act accordingly
- To follow-up with DDMA's about the implementation of mitigation, preparedness and response measures and present status of the same & act accordingly
- To organize the orientation and training of personnel to undertake earthquake resistance constructions and retrofitting on a large scale
- To follow-up with Fire Department about the reach and capacity of their fire-extinguishers, fire safety policy and plan to increase their spread and improve their capacity and policy to train security guards, habitants of high rising building, civil defence, Home Guards personnel and volunteers in fire safety measures & act accordingly
- To follow-up with Armed Forces about the emergency support services available with them and keep in regular touch with them.

B.2 Flood:

Twenty eight out of 38 districts of the State being flood prone this is one major disaster for which the concerned departments have to remain specifically prepared. The Department of Disaster Management has to be specifically in readiness on the following counts:

- To follow-up with Water Resources Department about the repair and maintenance of the embankments & act accordingly

- To follow-up with Water Resources Department about the status of prevention, mitigation and preparedness related programmes and activities & act accordingly
- To follow-up with DMs/DDMAs about the shelters and the facilities available there & act accordingly
- To follow-up with Food & Civil Supplies Department for the positioning of supply of grains and fast food stuff etc. in the area & act accordingly
- To follow-up with Department of Transport and Department of Cabinet Coordination (Civil Aviation wing) about the availability of transportation facilities & act accordingly.
- To make arrangement for the storage and packaging of the relief materials.
- To follow-up with Department of Science & Technology and Indian Meteorology Department about the functioning of the gadgets and equipments at the ground and EOCs level and do the needful.
- To follow-up with NDRF & BSDRF about their preparedness & organize periodic meetings with them.
- To form the Incident Management Team consisting of officers from the Lead and Support Departments.
- To form Damage Assessment Team.

B.3 Fire:

- To follow-up with Home Department about Fire Safety Policy, Measures, Equipments and Machinery and orientation and training programme of firemen and team of youth(s) from vulnerable communities both for the urban and rural areas.
- To organize survey and study of Fire Safety in Urban areas, where high rise buildings are in abundance.
- To strategize the putting up of Fire Safety measures in government, multistoried and strategic buildings in particular and other places where concentration of large population is likely to be there.
- To strategize the installation of easy to operate fire safety devices at the Police Station, Gram Panchayat and vulnerable community level and get orientation & training conducted in

operating the same and get repair/ maintenance/replacement of the same organized both in urban & rural areas

- Encourage the Urban Development Department and Municipal Corporations to strategize the widening of roads and lanes, removal of encroachments etc. for the movement of fire fighting engines during disaster
- Encourage Urban Development Department to take a policy decision and enforcement of the same in the construction of high rise buildings for which appropriate fire fighting devices are available
- Encourage Urban Development Department to make it mandatory for apartments to have underground water storage tank etc. for use in fire emergencies
- In case of widening of roads and lanes being not possible, then get the decision to equip Fire Department with compatible fire extinguishing vehicle etc.

B.4 Drought:

- Drought being a slow on-setting hazard, response to it may be coupled with mitigation measures to hold it from further intensification
- Drought has to be viewed from flood point of view, on the one hand, and from rain harvesting point view, on the other
- Encourage Water Resources Department, Department of Minor Irrigation, Department of Agriculture & PHED and other specialized agencies to take up drought prevention and mitigation measures.
- To coordinate with Urban Development Department/Panchayati Raj Department/PHED/Rural Development Department/ Building Construction Department/ Education Department/ Health Department etc for promotion of rain water harvesting measures as a drought prevention measure and encourage them to incorporate rain harvesting measures in all building construction works undertaken by the State Government.
- In association with Department of Agriculture, Rural Development Department and Department of Environment and Forest & through other specialized agencies work out drought prevention, mitigation and preparedness measures from crop

management and social forestry point of view and get the same implemented.

B.5 High Speed Wind/Gail:

- Analyse the data regarding high speed wind/gail received from IMD and take necessary measures
- Coordination with the Electricity supply companies and BSNL for organizing restoration of power & communication linkages in vulnerable areas
- Work out a strategy to combat the impact of high speed wind/gail.

B.6 Traffic Accidents:

- *Road accidents &*
- *Boat Capsizing*

- In both the cases—road and water transportation— in association with Transport Department and District Administration monitor mitigation and preparedness measures taken to prevent accidents.
- Depending upon the nature of accident and magnitude of disaster, respond effectively and carry out relief operations promptly.

B.7 Industrial Disaster:

- In association with the Department of Labour and Department of Industries, DMD shall get formulated, Disaster Mitigation and preparedness measures
- DMD, in association with Home Department, Industry Department & Labour Department, shall form the Incident Management Team and the Damage Assessment Team for support in Response and Damage Assessment.

B.8 Epidemics :

- In association with Health Department, Municipal Corporation, PHED, Bihar State Health Society and Urban & Rural Development Departments, DMD to identify specific disease wise vulnerable areas and encourage the concerned agencies to take up prevention, mitigation and preparedness measures for each identified and formulated for implementation.

- DMD shall formulate Incident Management and Damage Assessment Teams of officers and professionally qualified representatives of these departments for respective purposes.

3. Department of Water Resources

The Department of Water Resources shall be the lead organization for working out floods related prevention, mitigation and preparedness measures. In the process, the department in association with Department of Agriculture, Department of Minor Irrigation and PHED, shall survey, study and explore the options to integrate the flood management with drought management so that excess of water resources in one case meets the dire requirements in the other.

A. Disaster Phase Wise

A.1 Pre- Disaster :

- Formation of Disaster Management Cell and man the same with senior personnel drawn from key sections of the Department.
- GIS mapping of the flood prone areas and condition of embankments and other structural flood prevention and mitigation measures
- Developing Early Warning System to disseminate timely information regarding impending floods to the people of the area likely to be inundated
- Developing Flood Management Information System for all river basins of Bihar
- In view of the findings, formulation of further prevention, mitigation & preparedness related programme and activities along with budget for integration with those of other departments
- Co-ordination with DMD for the finalization of programme and activities and for implementation of the same
- Providing support in the implementation of the programme and activities
- Supervision and monitoring of the implementation of flood prevention/mitigation/preparedness schemes
- Working out long-term remedial measures for intensively flood prone areas in consultation with BSDMA, DMD, BSIDM and other specialized institutions in the country
- Keeping in view drought prone areas in its purview so that intensively flood-prone areas and intensively drought prone areas may become mutually supportive in the long run

- While giving due weightage to anti-erosion, spur protection and embankment strengthening, non-structural measures related specifically to siltation prevention and clearing shall also be kept in focus and given priority.
- While giving effective implementation of Bihar Irrigation Flood Management and Drainage Rules, 2003, it shall be kept in mind that the Rules have to include the development needs of the area, on the one hand, and the water needs of the drought prone areas, on the other
- Co-ordination with Nepal for the preparation of risk maps and techno-economic evaluation of the threat of flood on a regular basis.
- Installation of required number of rain gauge stations along the inundating rivers
- Keeping track of catchment area in Himalayas and take prevention, mitigation and preparation measures accordingly
- Systematizing Multi-Channel communication networking to support disaster management
- Form a team of trouble shooters drawn from key sections of the department for deployment during emergencies. The team may include, if needed, competent retired persons of the department.
- Since Flood is a calendar bound incident, the planning and execution of the flood related disaster management shall be done in four distinct phases :
 - From mid-October to November end field visit to formalize and finalize anti-erosion schemes for implementation.
 - From November and to December end inviting bids and awarding contracts for the implementation of the schemes.
 - From January beginning to May end completion of the contracts awarded.
 - From Mid June to Mid October depending upon factors beyond control, flood-fighting in particular and disaster management in general begins and ends.
- Effective implementation of Bihar Irrigation, Flood Management & Drainage Rules, 2003 shall be undertaken .

- Close coordination with National Water Commission and Ganga Flood Control Commission be done so that techno economic evaluation in coordination with Nepal, preparation of risk maps with the help of remote sensing and satellite imagery be prepared.
- Flood Fighting Force (FFF) consisting of engineers & support staff shall be constituted and placed in vulnerable areas to prevent/mitigate major disaster
- Number of rain gauges shall be increased to cover all the 534 blocks and gauge stations to cover all the major rivers causing inundation.
- Establishment of dedicated satellite based or radio based communication system for flood management.

A.2 During Disaster:

- Department of Water Resources shall be, along with Disaster Management Department, the joint lead department during disasters caused by flood
- Deployment of team of trouble shooters at the site of incident to take preventive measures

A.3 Post Disaster:

- Survey and study of the source of flooding for taking long-term preventive measures
- Providing for the upkeep and maintenance of the same

B. Disaster Wise

B.1 Earthquake:

- GIS mapping of the breaches in embankments caused by earthquake
- Repairing of the breaches and maintenance of other embankments

B.2 Floods:

- GIS mapping of vulnerable areas
- Coordination with Nepal and IMD for assessment of rainfall and floodwater flows in the catchment areas of Himalayas
- Placement of rain gauge stations along the flooding rivers

- Repair, maintenance and upkeep of the same for getting regular flow of information.
- Formation of trouble shooting team
- Placement of trouble shooting team at strategic places
- Take measures for flood protection/fighting at vulnerable spots of embankments/zamindari bunds; supervision and monitoring of the implementation of the programme and activities for flood protection/fighting.
- Providing support to DMD in disaster response as a joint lead department

B.3 Drought:

- In association with the Department of Minor Irrigation, integrate its preventive & mitigation measures with those of Department of Agriculture for prevention, mitigation and preparedness for drought

B.4 High Speed Wind /Gail:

- Take remedial measures for flash floods caused by cyclonic Storm/High Velocity Wind/Gail.
- Send team of trouble shooters to the affected areas

B.5 Traffic Accidents:

- **Boat**
 - To avoid boat accidents put up sign boards about depth of water, muddy bed etc. at ferrying points along the rivers.

B.6 Epidemics:

- In association with Urban Development Department, Municipal Corporation and Municipalities, Health Department and DMD coordinating the prevention of River pollution

4. Department of Agriculture

The Department of Agriculture shall be the lead department for disaster caused by Drought. Besides, the Department shall be one of the major support departments for disasters caused by earthquake, floods, fire and cyclonic storms.

The Department, through its Disaster Management Cell, shall coordinate with Indian Meteorological Department, ISRO State office, Water Resources Department, Minor Irrigation Department, PHED, DMD & other concerned departments/agencies for collection of data & based on that working out prevention, mitigation & preparedness measures for disaster caused by drought.

A. Disaster Phase Wise

Disaster phase wise roles and responsibilities of the department shall be :

A.1 *Pre- Disaster :*

- Formation of DM Cell and manning the same by drawing personnel for key sections of the Department.
- Facilitating the identification of drought prone areas through GIS mapping, rainfall estimation etc.
- Survey and study of identified drought prone areas
- Formulation of prevention, mitigation & preparedness measures along with budget allocations in association with Water Resources, Minor Irrigation and PHED departments
- In consultation with PHED, Minor Irrigations & Rural Development Department formulation implementation and monitoring of rainwater harvesting policies and programmes and activities
- Formulation of agricultural product policy for the area, working out contingency crop plan in case of delay in monsoon and strategizing the storage and supply of needs, fertilizers and pesticides in order to promote compatible agriculture practices in the area
- In association with the Department of Forest and Environment workout programme and activities for the ecological betterment of the area.
- In association with the departments of Water Resources and Minor Irrigation plan for providing irrigation facilities during drought.
- Formation of Damage Assessment Team

A.2 During Disaster :

- Crop damage assessment
- Working out alternative cropping for the drought as well as flood affected areas and organizing all the inputs required for the same

A.3 Post Disaster :

- Providing support in the implementation of alternative cropping programme in drought as well as flood affected area
- On the basis of crop damage assessment organize payment of input subsidy in accordance with State Disaster Fund norms in association with Disaster Management Department

B. Disaster Wise

B.1 Earthquake :

- Crop damage assessment
- Payment of Agriculture Input subsidy
- Working out crop contingency plan

B.2 Floods :

- Crop damage assessment
- Payment of Agriculture Input subsidy
- Working out crop contingency plan

B.3 Drought :

- Identification of drought prone areas through GIS mapping, rainfall estimation etc.
- Survey and study of identified drought prone areas
- Formulation of prevention, mitigation and preparedness measures along with budget allocations
- Formulation of policy and strategizing the implementation of rain harvesting programme & activities
- Working out Crop Contingency Plan
- Providing Agriculture Input subsidy
- Strategizing the storage and supply of seeds, fertilizers and pesticides
- Working out ecological betterment of the areas

- Organizing the irrigation facilities
- Working out alternative cropping programme and activities

B.4 Fire :

- Crop Damage Assessment
- Providing Agriculture Input subsidy
- Supply of Seeds and Fertilizers

5. Department of Food & Consumer Protection

The Department of Food & Consumer Protection is a key support department in case of disaster caused by earthquake, flood, drought and fire. Its roles and responsibilities largely cover during and post-disaster period. But careful planning of agri.–product storage and packaging during Pre-Disaster period shall provide great help in relief distribution during disaster period.

A. Disaster Phase Wise

The Department of Food & Consumer Protection is a major support department During & Post–Disaster period. During Pre-disaster period, however, the department has roles to play in preparedness specifically in flood and drought prone areas.

A.1 Pre- Disaster :

- Formation and manning of DM Cell with personnel drawn from key sections of the department.
- In consultation with Water Resources, Disaster Management and Agriculture Department, marking of flood and drought prone areas and making storage, packaging and supply of food grains during and disaster and post disaster period.
- Implementation of Food Security Act effectively.

A.2 During Disaster:

- Making arrangements for the supply food and relief materials
- Making arrangements for the running the kitchen at the relief camp site.
- Compliance of food grain demand received from Disaster Management Department in time of earthquake, flood, drought, fire and epidemics.

A.3 Post Disaster :

- Maintain the supply of foodgrains till the rehabilitation is complete

B. Disaster Wise

B.1 Earthquake :

- As earthquake disrupts ground level movements, the aerial supply line remains the only option. But then for dropping supplies an appropriate packaging of food products have to be

there. Such packaging materials in adequate quantity have to be kept in readiness for bulk as well as in small packets.

- Organize security of the godown and provide escort services to the supplies.
- Coordinate procurement of goods and supplies required for the relief distribution.

B.2 Floods:

- Make arrangements for the supply of food grains at the incident site, relief camps.
- In consultation with DMD plan and systematize the distribution of relief materials.

B.3 Drought:

- In consultation with Department of Disaster Management, set-up centres for supply of food grains on subsidized rates or free, as decided.

B.4 Fire:

- In consultation with DMD organize distribution of food grains to the victims for a period specified.

6. Department of Panchayati Raj

Panchayat is the most important of all the local bodies. It is so positioned that between the first stakeholders, that is, communities and the District Administration it takes both in its stride without taking a giant leap. At the district level the Chairperson, Zila Parishad is along with District Magistrate, the Co-Chairperson of DDMA and at the community level Gram Panchayat is the only field level institution elected representatives of the people in general.

As such, the Department of Panchayati Raj is a key department positioned to play significant roles in the implementation of programme and activities from pre-disaster to the of "Build Back Better" phase.

A. Disaster Phase wise

Disaster Phase wise the department has following roles to play:

A.1. Pre Disaster

- Formation of DM Cell and manning the same with senior personnel drawn from key sections of the department.
- Advising elected representatives Zila Parishad, Panchayat Samiti, Gram Panchayat level to provide support in the implementation of Disaster Management related programme and activities
- Getting them oriented in supervision and monitoring of programme implementation.
- Advising them to make use of Gram Sabha to spread awareness about hazard and the need to get prepared and remain alert:
- Orientation of the elected representatives in galvanizing larger community participation in disaster management
- As provided in the Panchayati Raj Act getting Disaster Management related Statutory Committee formed and activated.

A.2. During Disaster

- Advise Panchayat Representatives to provide support to search & rescue team, persuade people to evacuate and help in identification of victims & relief distribution.

A.3. Post Disaster

- Advise Panchayat Representatives to provide support in the resettlement of the people in a planned manner.

B. Hazard Wise

B.1. Earthquake:

- Advising Panchayati Raj representatives to do advocacy for construction of earthquake resistant houses as per the technical specifications available.
- To organize awareness generation about earthquake among communities

B.2. Flood:

- Advising Panchayats to do advocacy for the construction of houses and public buildings to the extent possible at a higher level.

B.3. Fire:

- Training volunteers at Panchayat level for fire fighting

7. Department of Health & Family Welfare

The Department of Health and Family Welfare shall be the lead department in case of Epidemics and a major support department in case of disaster caused by all hazards. As such the department shall keep its health services providing centre and facilities for mobile and on site medical services in readiness on 24 × 7 × 365 days basis.

Besides, the health department shall equip its Primary Health Centres in vulnerable areas with medical facilities and staff so that adequate support be provided to the victims on immediate basis.

A. Disaster Phase Wise

The disaster phase wise roles and responsibilities of the Department shall be;

A.1. Pre Disaster Phase

- Formation of Disaster Management Cell and manning the same with senior personnel drawn from key sections of the depts.
- Formulation of Disaster Management Plan for each of the Medical College & Hospitals, District Hospitals & Health Centres.
- Formulation of policies and programmes to make Emergency and First-Aid Services available up-to Gram Panchayat level.
- Orientation and training of medical service rendering staff members in disaster response and rendering health services in 'non-lab' situations.
- Disaster-proofing of all Medical Colleges and Hospitals and other health facilities.
- Networking with local private hospitals and nursing homes for support services during emergencies
- Networking with national level specialized medical services and research centres for guidance and support during epidemics.
- Enlisting and safekeeping of disaster-wise medicines at the district level and sufficient stock at the state level.
- Facilitating the creation of Trauma Centre, Mobile as well as floating Medical Service Vans, Boats, Air Ambulances, Boat Ambulances etc.
- Formulating Standard Operating Procedure for Mass Casualty Management, for Tagging and tapping, for Medicines Supply

Management, and Emergency Admission Procedure with adequate record keeping.

- Identifications of sources for bulk supplies of medicines during emergencies.
- Review and updating of protection of equipment, safe-keeping of medicines.
- Orientation and training of Hospital staff in disaster response plan and procedures.
- Emergency communication network with SEOC, DEOC Hospitals and Private hospitals
- Checklist for the stocking of drugs and other services and facilities required in emergencies at the District Hospitals.
- To strengthen Bio-Medical Waste Management to check its adverse impact on human and cattle health.
- Development of Air-Ambulance landing sites in Medical College Hospitals
- Preparation of Triage Protocol (Tagging, Tapping etc.)
- The dept. shall get the medical teams trained to respond quickly in medical emergencies. Department of Disaster Management may provide support for the training.

A.2. During Disaster

- Positioning of well trained, fully equipped emergency medical team and facilities at disaster site.
- Networking with hospitals in safe neighboring districts and making arrangements for the transportation of patients after first aid.
- Setting-up of Trauma Centre
- Setting up morgue for the safe keeping of dead bodies.
- Keeping the Information Centre at the incident site posted about the name and address of deceased and whereabouts of the victims attended and dispatched.

A.3. Post Disaster Phase

- Continued running of the Trauma Centre

- Post disaster disease prevention and control
- Training of selected male and female young ones in the community in first aid and paramedics.
- Keeping available dog-bite, snake bite water-borne infections and flu etc. related medicines in stock at the Primary Health Centre
- Regular Visit of the Relief Camps by physicians.

B. Hazard Wise

Of all the departments, hazards wise services of the Health Department tend to vary considerably. As such, Department has to make hazard specific preparations.

B.1. Earthquake

- The preparations shall be made keeping in mind injuries caused by falling off and from buildings, heavy structures-specifically bone injuries etc.
- Since roads shall either be breached or obstructed the setting up of medical camp etc. shall have to be flown. As such kits etc. have to be kept ready for that kind of carrying.
- Since other supplies etc. shall be disrupted, the food and drinking arrangements for the medical staff shall be part of the baggage.

B.2. Flood

- Getting ready medical mobile boats and Air Ambulances.
- Getting ready with Floating Hospitals.
- Getting SOP ready for Response during flood.
- Preparation of checklist of medicines and equipment etc. for hospitals and Medical Service Providers, Medical Camps etc.
- Having its own transport arrangements to move in emergencies.
- Pooling and positioning of ambulances in strategic places.

B.3. Drought

- Medical camps in affected areas.
- Checklist of medicines and medicals facilities to have in the camps.
- Arrangements for the running of the camps on long term basis

- Arrangement of provisions for the medical staff manning the camps
- Making arrangements for community centered medical services rather than camp centered services.

B.4. Fire

- Checklist of onsite First Aid Services
- Creation of special team for rescue and carrying of fire-victims.
- Creation of special ward in Hospitals to treat the patients.
- Check list of medicines and treatments required by the victims at the camp level and at the Hospital level.
- Health Dept. shall create a special ward for fire patients in Medical College and Hospitals, District Hospitals and equip them with qualified and competent medical staff and appropriate facilities and medicines.
- Dept shall have tie-ups with fire patients treating specialized sector at the state and national level with clearly spelt out support and services they shall provide in emergencies.

B.5. High Speed Wind

- As the disastrous impact of cyclonic storms is more or less spread and scattered over a vast area, mobile medical van equipped to provide treatments for injuries inflicted by cyclonic storms.
- Enlisting the kind of injuries and victims cyclonic storms render and directing medical colleges and hospitals, district hospitals and other medical service center to prepare accordingly.

B.6. Epidemics

- The Department of Health shall get a study of epidemic prone areas and period of outbreak and remedial measures required. Based on the findings solicit guidance and support from the specialized institutions at the national and international level.
- Based on the epidemic calendar the dept. shall workout a set of programme, activities and SOPs for Pre, during and Post epidemic period and give directions to Civil Surgeons to implement and follow the same religiously .
- The Dept. through its DM Cell shall supervise and monitor the implementation of programme and activities.

- The Dept. shall keep ready team of doctors and support staff to press in service if reinforcement needed.

B.7. Transport Accidents

- *Road &*
- *Boat*

- Making use of the mobile medical vans to provide on the spot medical aid
- Tagging and flapping of victims before getting transported to the nearest hospital.
- Organizing postmortem of the deceased.

– B.8. Industrial Accidents:

- For Industrial Accidents, the Dept. shall prepare hazard profile of the industrial areas in the State in consultation with the Dept. of Industries and Labour.
- The Department shall also gather information about the kind of medical preparedness a state should have for Chemical, Biological, Radiological and Nuclear Disaster. And based on the details gathered shall create facilities based on that in the Medical College and Hospital in the state capital and get trained a team of doctors and support staff.
- The dept. shall get the medical teams trained to respond quickly in medical emergencies. Department of Disaster Management may provide support for the training.

8. Department of Education

The role and responsibilities of Department of Education shall consist of the following :

A. Disaster Phase wise

A.1. Pre Disaster Phase

- Formation of Disaster Management Cell and manning the same by senior personnel drawn from key Directorates.
- Incorporating costs for preventive and mitigation measures for earthquake, flood, fire and cyclonic storm prone areas to construct disaster resistant school buildings.
- In association with Fire Dept. getting fire extinguishers installed in schools and teachers identified and trained in operating them.
- Awareness Generation Programmes about Hazard, the kind of preparedness required and how to act at the time of disaster shall be organized in schools on monthly basis.
- Disaster Management shall be made a part of the school curriculum.
- The Department shall get quality films made on hazard wise disaster preparedness and organize their viewing by children and their parents.
- The Department shall in association with Nehru Yuva Kendra organize locality based youth clubs and get them groomed in escort services, relief work and taking care of children, women, old and sick.
- Making adequate arrangements for getting hand pumps installed, storage facilities created, toilet and bathrooms built in those schools where communities do take shelter during flood. Concerned departments shall either make the arrangements or make funds available for the same. DMD shall coordinate.

A.2. During Disaster

- Safekeeping of infrastructure of schools converted into shelters

A.3. Post Disaster

- Getting the school vacated as soon as normalcy is restored.
- Resumption of teaching work at the earliest.

B. Hazard wise

B.1. Earthquake

- Construction of earthquake resistant school buildings.
- Retrofitting in already constructed buildings.

B.2. Flood

- Selection of site for the construction of school building shall be done with the level of flooding water in mind.
- Open space for emergency construction of sheds etc. shall be left to the extent possible.

B.3. Fire

- Fire extinguishers be placed in schools and teachers identified and trained for using the same in case of fire in school or in the neighborhood

9. Department of Labour

The Department of Labour along with DMD shall be the lead department in case of Industrial Disaster. Its roles and responsibilities shall be

A. Disaster Phase wise

A.1. Pre- Disaster

- Formation of DM Cell and manning the same with senior personnel drawn from key sections.
- Strengthening of the factory inspection in consultation with department of Industries, Fire and Health Departments.
- Providing of orientation and training programme and activities in disaster management for the security staff at the Industrial Estates.
- Establishment of communication system to get informed in time to organize response
- Formulation of policies and programmes for strategizing location based industrial disaster management.

A.2. During Disaster

- In association with DMD and with the support of DDMA, Department of Labour shall respond to the call.
- With the help of Central Industrial Security Force and local police and BSDRF organize search and rescue and evacuation of workers and the people in the neighborhood living in areas vulnerable to the accident.

A.3. Post- Disaster

- Investigating the cause of the disaster, fixing responsibilities and taking remedial measures.

B. Hazard Wise

B.1. Earthquake

- Attending to the damages caused in industrial estates.
- Organize fire preventive measures
- Putting CISF on alert
- Organize Damage Assessment and submit report to DMD.

B.2. Floods

- Attending to the damages caused in industrial estates.
- Organize fire preventive measures
- Put CISF on alert
- Organize Damage Assessment and submit report to DMD.

B.3. Fire

- In association with Fire Department and DMD organize control measures.
- Press CISF to prevent spread
- Press Police to evacuate vulnerable population in the neighborhood
- Get the consequences of fire in the factory worked out and take action in the same light.

B.4. High Speed Wind

- In association with DMD, get damage assessment done
- Act in view of the same

B.5. Industrial Accident

- In association with DMD, get damage assessment done
- Act in view of the same

10. Public Health Engineering Department (PHED)

The Department of PHED shall be a major support department in disaster caused by earthquake, flood, drought, fire & cyclonic storms. Its roles and responsibilities shall be:

A. Disaster Phase wise

A.1. Pre- Disaster

- Formation of Disaster Management Cell and manning with senior personnel drawn from key sections of the dept.
- Formulation of Public Health Engineering related programme and activities by intonating them with hazard specific preventive and mitigation measures.
- Creation of stocks of installation materials at the district level for use in emergencies.
- Orientation and training of a team of technicians to do installation as quickly as possible.
- Strategizing the installation of hand-pumps etc. with hazard profile of the area in mind.
- In consultation with the Department of Education and DMD, provision of additional sanitation and drinking water facilities in schools and relief shelters where people take refuge during flood.
- In consultation with the Department of Disaster Management making special arrangements for the supply of drinking water in drought prone areas.
- Planning for repair and maintenance of the facilities created as a part of the programme and activities.
- Keeping a track of groundwater level and having a fresh look at the facilities created accordingly.
- Organizing interaction with Gram Panchayats for having proper sanitation facilities, and providing them support and guidance in planning, implementation and maintenance of the same.
- Procurement, upkeep and maintenance of sanitation equipment for use in emergencies.

A.2. During Disaster

- To create sanitation & drinking water facilities in relief camps.

- To create sanitation & drinking water facilities in shelter for livestock.
- Organize repair & maintenance of the same

A.3. Post Disaster

- Survey & Study of the area for the rehabilitation of victims.
- Working out layout plan for sanitation & drinking water supply in consultation with agency involved in construction of houses.
- Implementation of the plan and making arrangements for the repair and maintenance of the same.

B. Hazard wise

B.1. Earthquake

- To create sanitation & drinking water facilities in relief camps.
- To create sanitation & drinking water facilities in shelter for livestock.
- Organize repair & maintenance of the same

B.2. Floods

- To create sanitation & drinking water facilities in relief camps.
- To create sanitation & drinking water facilities in shelter for livestock.
- Organize repair & maintenance of the same

B.3. Drought

- Installation of extra hand pumps to sustain the supply of drinking water
- Formulating rain harvesting practices and promoting the same in vulnerable areas.

B.4. Fire

- Create facility for drinking water on immediate basis where the victims have temporarily taken refuge.
- Make arrangements for the sanitation facilities.

11. Department of Transport

It is statistically proven that road accidents cause more deaths in a year than all disasters put together. Death by drowning in boat accidents swells the figure all the more. The Department of Transport therefore require larger input of disaster management than normally provided.

The Department of Transport shall be the lead department in case of road and boat accidents, and a major support providing department in disaster response.

The roles and responsibilities of the department shall be

A. Disaster Phase wise

A.1. Pre- Disaster

- Formation of Disaster Management Cell and manning with senior personnel drawn from key sections of the department.
- Taking road and boat accident prevention and control measures by giving due thrust on
 - **Education:**
 - Creating awareness about road safety measures among the drivers, pedestrians and school children.
 - Lessons on road safety be included in school curriculum.
 - **Enforcement :**
 - Organized checking of vehicles and boats, drivers licenses, drinking of alcohol, repair and maintenance, certification by pollution control board etc.
 - **Engineering :**
 - Road construction with prescribed indicators for safe driving etc and properly marked lanes be done and monitored and maintained.
 - Vehicles plying on roads and boats ferrying shall be regularly inspected on the basis of standard checking procedure laid and approved.
 - **Emergency First Aid** facilities be kept in each vehicle and drivers and conductors be given training in providing First-Aid support services.

- The mobile number of mobile medical care unit be written in bold letters in front of the driver and above the back view panel.
 - As road accidents call for specialised rescue and medical relief operation, department may consider creating a separate “Road Safety Fund” to create facilities to attend to the relief etc. needs of road & boat accident victims.
- Model Boat Rules, 2011 under Bengal Ferries Act-1885 shall be introduced and enforced.
 - Orientation and training programme shall be organized for Drivers and boatmen to inculcate in them safe driving and safe sailing habits.
 - A programme shall be organized to impart training to boat surveyors, MVIs and Master trainers for making travelling by road and sailing by river safe.
 - Getting GIS mapping of roads and rivers done in flood prone areas so that appropriate driving/sailing instructions be prepared and given to drivers driving on that route.

A.2. During Disaster

- Providing transportation facilities for the relief operations.
- Providing boats for evacuation operation.
- Resumption of road transportation as soon as the road connectivity is restored.

12. Department of Social Welfare

The Department of Social Welfare shall be one of the major support departments to actively participate in the management of relief camps and distribution of relief. The department shall focus on children, women, old and sick men & women.

The roles and responsibilities of the department shall be :

A. Disaster Phase wise

A.1. Pre- Disaster

- Formation of DM Cell and manning with senior personnel drawn from key sections.
- Orientation and training of the personnel in line dept. at the district level in relief camp management and relief distribution.
- Formation and training of team of ICDS and Anganwadi Workers to provide support services in relief camps.
- Preparing Gram Panchayat wise list of dependent sections of society women, children, old and differently abled.
- Nominating personnel to take care of lactating mother, diseased and differently able persons during disaster.
- Identify the place where people could be safely housed and make the same known to all.

A.2. During Disaster

- Deputing ICDS & Anganwadi worker in providing support specifically to children & women during disaster.
- Participation in relief camp management and relief distribution through the team of ICDS and Anganwadi Workers.
- Running of child care and counseling centre in relief camps.
- Distribution of Blankets & Firewoods during winter/cold waves.

13. Department of Building Construction

The Department of Building Construction shall be a major support department in case of Earthquake, Fire and Cyclonic Storm.

The Department shall be the resource department for the training of Architects to Masons to construct earthquake resistant buildings, to generate awareness among people about the advantages of safe construction and extend support in providing technical know-how and trained personnel for building safe houses.

The Department shall subsequently try to have a Single Window Service (SWS) for providing design, technical know –how and trained manpower for private construction and also certification for proper construction, if it be so.

The roles and responsibilities of the department shall be :

A. Disaster Phase wise

A.1. Pre- Disaster

- Setting up DM Cell and manning with senior personnel drawn from key sections of the department.
- In association with Department of Rural Development, spread awareness about safe construction specifically through flagship schemes like Indira Awas, Panchayat Bhawan, School Buildings.
- Procurement and placement of heavy duty concrete cutting, debris clearing machines in district headquarters.

A.2. During Disaster

- Provide support in search and rescue from building and apartments.
- Provide support in clearing debris and roads of fallen trees etc.
- Organize construction of relief shelter for humans and livestock.

A.3. Post Disaster

- Provide support in the construction of safe houses for resettlements of victims.

14. Department of Energy

The Department of Energy plays crucial role in providing normalcy. As such, in disaster management restoration of power supply holds the key. It at once, creates the feeling of "All is well".

The roles and responsibilities of the department shall be:

A. Disaster Phase wise

A.1. Pre- Disaster

- Formation of DM Cell and manning with senior personnel drawn from key sections of the Department.
- In association with Urban Development Department work out preparedness and restoration of power supply measures in case of earthquake.
- In association with Water Resources Department prepare for emergency power supply in flood prone areas.
- In association with Labour and Industry Departments work out safety measures in Industrial Estate.

A.2. During Disaster

- Restoration of power supply.
- Making proper lighting arrangements.
- Providing dedicated power supply to the rural areas during drought-like situations as per decision of the State Government.

A.3. Post Disaster

- Power supply and lighting arrangements in rehabilitation areas.

15. Department of Environment & Forest

The Department of Environment & Forest shall be the lead department in preparing strategy / action plan for prevention, mitigation and preparedness for Human Induced Climatic Changes causing disaster.

The department shall work in association with BSIDM, Agriculture, Rural Development, Industry, Mining, Transport, Urban Development, Housing Construction, Energy, Water Resources and Health departments.

The department shall make use of **Hariyali Mission** specifically in association with Rural Development, Water Resources and Minor Irrigation Departments in mitigating climatic changes.

The roles and responsibilities of the department shall be :

A. Disaster Phase wise

A.1. Pre-Disasters

- formation of DM Cell and manning with senior personnel drawn from key sections of the department
- Preparation of strategic plan in consultation with associated departments.
- Regular checking of emissions produced by industries, chemical effluents and vehicles.
- Regular checking of water pollution both surface and ground.
- Implementation of social forestry scheme in mission mode.
- Preparation of wild life protection programme and activities during various disaster related crisis.
- Preparation of Emergency Plan for wild life housed in Sanjay Gandhi Biological Park.
- Preparation of Emergency Plan for each Industrial Estate after having studied the kind of units located there in.
- Training of the field level officers and personnel of the department in view of the above.

A.2. During Disaster

- Determining of protocol during various kinds o disaster.
- Distribution of roles and responsibilities to officers of personnel of the department.

A.3. Post Disaster

- Survey and study of the disaster affected areas and strategize and prepare an action plan for the kind of plantation which shall bring about ecological balance & betterment.
- Determining of long term strategy so that disaster impact could be minimized.
- Preparation of plan from deep ecology point of view.

16. Department of Industries

The Department of Industries shall be a major support department in case of Industrial Accidents.

In association with Labour, Energy, Fire & Forest and Environment Department, the Department of Industries shall strategize and plan for prevention, mitigation and preparedness for industrial disaster.

The roles and responsibilities of the department shall be :

A. Disaster Phase wise

A.1. Pre-Disasters

- Formation of DM Cell and manning by senior personnel drawn from major section of the department.
- Formulation of policy framework for evaluation of Detailed Project Report from disaster management point of view.
- Orientation and training of DM Cell personnel along with those of DM Cell of Labour and Energy department.
- Strategizing and planning of disaster management related facilities at the industrial estate level.
- Formation of Damage Assessment Team.

A.2. During Disaster

- Putting Industrial Estate Management on alert

A.3. Post Disaster

- Damage Assessment, if any, and taking remedial measures.

17. Department of Animal Husbandry

The Department of Animal Husbandry shall be a major support department in case of disaster caused by Earthquake, Flood, Drought, Fire & Cyclonic Storm.

The Department shall prepare livestock related prevention, mitigation and preparedness measures in case of all disasters.

The roles and responsibilities of the department shall be :

A. Disaster Phase wise

A.1. Pre-Disaster

- Formation of DM Cell and manning with senior personnel drawn from key sections of the department.
- Storage of feed and fodder at safe places in flood and drought prone areas and making arrangements for its supply.
- Prepare for the vaccination as well as treatment of livestock through Veterinary Department.
- Formation of a team for Emergency Support Services to livestock like creation of shelter, storage and distribution of fodder, vaccination and medicines during disaster days.

A.2. During Disaster

- Administering vaccination etc. to prevent outbreak of any disease.
- Making arrangements for the sale of milk of disaster affected cattle owners or value addition of the same.
- Arrangements for removal of dead cattle.

A.3. Post Disaster

- Thorough checking of livestock before handing over to the owners.
- In the event of owners not coming forward to claim the livestock, the department shall take decision in consultation with the District Administration.

18. Department of Finance

The Department of Finance shall be the Resource Department for arranging, allocating and timely release of funds.

The Department shall formulate a policy for the allocation of funds for the disaster management in general and for the coupling of development initiatives with disaster management measures, on the other.

The Department shall decide how funds flowing from various sources and resources shall be pooled and spent. It shall provide the norms based on which each department shall make allocations for disaster management and spend accordingly.

Since disaster management is no longer a relief based activity, the Department of Finance shall provide a framework for budgeting for disaster management related programmes to each department and organize orientation and training to the staff members manning the DM Cells.

The roles and responsibilities of the Department of Finance shall be:

A. Disaster Phase wise

A.1. Pre-Disasters

- Formation of DM Cell and manning with senior personal drawn from key sections of the Department.
- Formation of policy framework for the manner of pooling and utilization of funds drawn from various sources and resources.
- Orientation and training of personnel of DM Cells in the preparation of budget for disaster management and in proportionating an amount out of the fund earmarked for a developmental initiatives to meet the cost of disaster management measures.
- Orientation and training of the same target group in of requisitioning of funds during response and making of utilization certificate for funds spent during disaster response.

A.2. During Disaster

- Keeping flow of funds alive in already prescribed manner.
- Monitoring of expenditure

A.3. Post Disaster

- Collection of utilization certificate and verification of the same on the basis already laid.

19. Department of Road Construction

The Department of Road Construction shall be a major support organization during disaster caused by earthquake, flood and cyclonic storm.

The Department shall prepare for the restoration of road transport at the earliest and create materials and manpower facilities for the same and temporary bridge construction at the district level in vulnerable areas.

The Department shall also provide for the clearing of debris and work out strategies for the construction of temporary bridges.

The roles and responsibilities of the department shall be:

A. Disaster Phase Wise

A. Pre-Disaster

- Formation of DM Cell and manning with senior personnel drawn from key sections of the Department.
- Get the GIS mapping of roads and bridges in vulnerable areas done.
- Work out the requirement of materials and machinery for the restoration of roads and have them stored in strategic places in district.
- In association with Water Resources revisit the roads in the vulnerable areas keeping in view terrain heights with reference to danger level at different stretches and make preparations accordingly.
- High flood level be kept in view for major road bridges construction in future.
- Road construction with prescribed indicators for safe driving etc. and properly marked lanes be done, maintained and monitored.
- Install Technology oriented latest signs and indicators and caution notes.
- Undertake inspection of bridges to assess their vulnerability. This shall be done in association with Water Resources Department during November-January every year.
- Undertake repair and maintenance of vulnerable bridge during February-May.
- Prepare detailed road map of the state including village roads and bypass and other connecting roads so that at the time of

disaster shortest possible route to reach the site may be worked out.

A.2 During Disaster

- Restore road connectivity to facilitate movement of vehicles. Construct temporary bridges to provide connectivity.
- Clearance of debris.

A.3 Post Disaster

- Making of approach road to resettlement site.

20. Department of Rural Development

The Department of Rural Development shall be the lead department in intonating the developmental schemes with disaster management inputs, on the one hand, and bracketing the exercise for resettlement of victims with livelihood related activities.

The roles and responsibilities of the department shall be:

A. Disaster Phase wise

A.1. Pre-Disaster

- Formation of DM Cell and manning with senior personnel from key sections of the department.
- In association with other stakeholders working on rural development schemes, provide support in awareness generation and preparedness at the community level.

A.2 During Disaster

- Mobilizing Support in search and rescue, evacuation.
- Support in the management of relief Camps.
- In drought situations, step up implementation of employment generation schemes including water recharge and water harvesting activites under such schemes.

A.3 Post Disaster

- Formation of Self-Help Groups of those being rehabilitated providing skill development training and help them get engaged in income generating activities.

21. Department of Urban Development

The Department of Urban Development shall be the lead organization in the formulation of Building Codes, implementation policy and programmes for the safe and comfortable living in cities.

The department shall be a major support organization in search and rescue operation during earthquake. And, in association with Fire Department, Municipal Corporation and Nagar Panchayats, work out programme and activities to prevent, mitigate and preparedness for disaster.

The roles and responsibilities of the department shall be :

A. Disaster Phase wise

A. 1 Pre-Disaster

- Formation of DM Cell and manning with senior personnel from key sections of the department.
- Formulation of Building Codes and Building Construction Policy and strategize the implementation of the same.
- In association with Building Construction Department, organise orientation and training of architects to mason for the safe and earthquake resistant construction of houses, buildings and apartments on the one hand. and retrofitting in the old ones, on the other.
- In association with police, road construction, energy departments and BSNL work by removing encroachments, relocating the electricity supply and telephone poles etc. so that accessibility be there to reach the area during emergencies.

A.2 During Disaster

- Participate in search and rescue operations
- Removal of debris

A.3 Post Disaster

- Resettlement of victims by 'building back better' townships.

22. Department of Cabinet Coordination (Civil Aviation Wing)

The Department of Cabinet Coordination shall be a major support organization for planning air transportation of support services nearest to the site of incident.

The roles and responsibilities of the department shall be:

A. Disaster Phase wise

A.1 Pre-Disaster

- In association with district administration, identification of district wise locations for the desired landing of small craft and helicopters.
- Development and maintenance of the site for landing of small crafts and helicopters.
- Procurement of small craft / helicopters in pre and during disaster periods.

A.2 During Disaster

- Organize the transportation of men and materials nearest to the destination given

A.3 Post Disaster

- Restoration and Maintenance of landing facilities.

23. Department of Rural Works

The basis objective newly formed Department of Rural Works is to construct and maintain the rural roads falling mainly in the category of Other District Roads (ODR) and Village Roads (VR). The purpose constructing these roads is to provide **Farm to Market Connectivity** to all eligible habitations.

The department is also responsible for constructing roads and bridges and culverts and cross drainage structures under State Plan, Pradhan Mantri Gram Sadak Programme, Rural Infrastructure Development Fund of NABARAD, Border Area Development Programme. Special Component Plan etc.

The Disaster Phase wise and Hazardwise roles and responsibilities of the department shall be :

A. Disaster Phase wise

A.1 Pre-Disaster

- Formation of Disaster Management Cell and manning with personnel drawn from key sections of the Department.
- Making a map of ODR and VR indicating their connectivity to State Highways and National Highways.
- Construction of ODR, VR bridges and culverts keeping in view the vulnerability of the area and by putting mitigation measures in consultation with DMD, Water Resources and Minor Irrigation departments.
- Keeping in view the hazard profile of the area make preparations and keep ready man and materials for the reconstruction of the roads and bridges and culverts to of restore movement.
- Maintenance of roads and bridges under its charge.

A.2 During Disaster

- Restoration of road connectivity and remaining vigilant to attend to similar needs elsewhere.
- Provide support to road Construction department in restoring traffic movement.

A.3 Post Disaster

- Repair and maintenance of the damaged roads, bridges and culverts.
- Construction of roads, bridges and culverts to connect the rehabilitation site.

B. Hazard Wise

B.1 Earthquake

- GIS mapping of the damaged area and reconstruction of roads, bridges & culverts.

B.2 Flood

- GIS mapping of the damaged area and reconstruction of roads, bridges & culverts

B.3 High Speed Wind

- Gathering information about the damages caused and undertaking reconstruction work accordingly.

24. Department of Information & Public Relations

The Department of Information & Public Relations being an information dissemination wing and state to people contact through media, the department is slated to play key role in maintaining transparency and building confidence at the time of disaster as well as before and after that.

The Disaster Phase wise and Hazard wise roles of the department are :

A. Disaster Phase wise

A.1 Pre-Disaster

- Acquiring mobile units fully equipped with mass communication facilities and keeping the same on readiness to work on 24x7 basis.
- Creation of Public awareness about the hazard and vulnerability profile of the state.
- Dissemination of information about hazard wise prevention, mitigation and preparedness measures being taken by the State & required to be taken by the people.
- Publicising hazard wise Dos & Don'ts for the people to remember.
- Regular interaction with media.
- Creation of disaster management related mass communication cell at the district level.

A.2 During Disaster

- Setting up of a control room to provide information to people about the disaster, affected area etc.
- Press briefing on daily basis at a given time to provide official updation of information.
- Feedback to authorities about media report and murmurings at the indent site.
- Manning of Information Centre at the relief Camp site and responding to queries.
- Informing people on day to day basis the kind of assistance provided to victims and measures being taken to control the situation.

A.3 Post Disaster

- Information dissemination about the rehabilitation and reconstruction measures being taken by the State.

25. Department of Planning & Development

The Department of Planning & Development has been, apart from the compilation of department wise schemes and allocation of funds for each, has been assigned to work on the rehabilitation projects. The role of the department in disaster management becomes very crucial.

The Disaster Phase wise and Hazard wise roles of the department are:

A. Hazard wise

A.1 Pre-Disaster

- Setting-up of DM Cell and manning the same with personnel drawn from key sections.
- In association with DMD & Hazard wise lead and support departments work out the scheme wise funds available for prevention, mitigation and preparedness measures. And also suggest, from where the fund could be made available.
- Upkeep of rain gauges.

A.2 During Disaster

- Setting-up of DM Cell and manning the same with personnel drawn from key sections.
- In association with DMD & Hazard wise lead and support departments work out the scheme wise funds available for prevention, mitigation and preparedness measures. And also suggest, from where the fund could be made available.

A.3 Post Disaster

- In association with DMD, formulation of scheme for the rehabilitation and resettlement of the displaced people, workout funding requirements, organize and monitor the implementation of the same.

26. Department of Minor Irrigation

The Department of Minor Irrigation is the key support department for drought affected areas. In association with Water Resources and PHED, the department has to play an important role in prevention, mitigation and preparedness measures for disaster risk reduction caused by drought.

The disaster phase wise and hazard wise roles of the department are :

A. Disaster Phase Wise

A.1 Pre-Disaster

- Formation of DM Cell and manning with personnel drawn from key sections of the department.
- Constructing check dams, water storage tanks (ahars) and safe water channels (pynes).
- Clearing of the water channels.
- Promotions of water shed management in hilly areas.
- Encouraging roof-top water harvesting in plain as well as hilly areas.
- Promotion of stream water harvesting.
- Construction of community based water storage facilities like ponds.

A.2 During Disaster

- Assessing the damage to small check dams.
- Survey of blocked water ways.
- Opening up alternate channels for releasing excess of water.
- Periodic monitoring of water levels check dams.
- Providing irrigation to the drought affected lands for sowing and saving the standing crops.

A.3 Post Disaster

- Creation of new irrigation and rain water harvesting schemes.
- Promotion of research in water conservation and management in the drought affected areas.

B. Hazard Wise

B.1 Earthquake

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B.2 Flood

- In association with Water Resource Department work out ways and means of conserving the surplus water and utilization of the same in drought prone areas.

B.3 Drought

- Identification of drought prone areas, availability of water resource in the area, level of ground water in the area.
- Formulation of prevention, mitigation and preparedness measures.
- Strategising the cropping pattern in association with Department of Agriculture and Creation of Irrigation facilities accordingly.
- Monitoring and supervision of the watershed and rain water harvesting facilities in the drought prone areas.

7. Other Stakeholders :

Among other stakeholders in disaster management local bodies like District Board, Municipal Corporation, Nagar Parisad, Nagar Panchyat, Gram Panchyat, Multilateral and Bilateral bodies, INGO, NGO, Corporate Bodies, Professional Association, Trade Bodies, Civil Societies and Community based organizations are foremost in playing various important roles during all the three phases of disaster management. As these stakeholders are different types of organization with varying objectives working at levels ranging from district to Panchayat level, doing advocacy to empowerment of communities at the grass-roots levels, the services of these stakeholders shall be taken in consonance with the nature of their organizational complexion. It could vary from implementation of preparedness measures, to support in rescue, distribution of relief to support in the management of relief camps to providing support in rehabilitation of the victims of disasters. Besides, depending on the nature of disaster and scope of work, services of organisations like NCC and scouts and guide can be utilized to strengthen the whole exercise of disaster management.

But, in order to utilize the services of these stakeholders to their full potential there is a need to identify one or two from the support need point of view and assign each an appropriate role to each in disaster management. They being of different types with specific area of operation and field of expertise and proximity with the community, local bodies, NGOs and CBOs have an edge over government agencies in invoking community involvement and rendering specific services. Some such major local bodies and NGOs are:

1. Local Bodies:

The Disaster Management Act, 2005, provides space to local bodies like District Board, Municipalities, Municipal Corporation, Nagar Parishad, Nagar Panchayat and Gram Panchayat in the implementation of disaster management related programme and activities.

In urban areas the local bodies shall partner in the enforcement of building construction, fire safety and sanitation related policy decisions. Their service shall be utilized during disasters caused by earthquake, flood, fire & epidemics.

In rural areas Gram Panchayat shall play supportive roles during all the three phases of disaster management. Through one of the Statutory Committees, Gram Panchayats, Panchayat Samiti and Zila Parishad shall play major roles as provided in the Panchayat Raj Act, 2006. With such participation in view, the Disaster Management Act, 2005 has placed Zila Parishad Adhyaksa as Co-chairperson of the District Disaster Management Authority (DDMA).

2. With Specialized Field Operations :

There are organizations with specialized activity and resource backup. International Red Cross Society is such a body. They have a large resource base and capability to provide material, financial as well as technical support. In emergencies, they are capable of garnering support and resources from all over the world.

The roles of these organizations may be spread over all the three phases of disaster management and therefore require proper orchestration in PPP mode.

i. Red Cross Society :

A. Pre-Disaster Phase

- Identification & training of volunteers in First-Aid at the community level.
- Preparing Paramedic team at the Gram Panchayat level.

B. During – Disaster

- Mobilizing teams of trained personnel to provide First-Aid and Paramedical services at the incident site.
- Providing assistance to medical team on incident site.

C. Post-Disaster

- Identification and training of volunteers in First-Aid and Paramedical at the resettlement site.

3. NGOs & Civil Societies :

NGOs & Civil Society organisations have resources as well as interest to provide support services at the time of community needs.

- Supply of relief materials to the victims.
- Mobilizing resources for pressing needs.

- Awareness generation
- Community based preparedness related activities
- Support in the preparation of contingency plan
- Evacuation, search & rescue
- Relief distribution
- Women & Child Care
- Community mobilization
- Documentation

4. Association of Local Occupation Groups :

In every district towns such occupation groups as Doctor's Association, Trader's Association, and Citizen Forums are there who are deeply interested in the welfare of the local communities. They, at the time of any incident, are the first ones to rush with whatever helps available and subsequently get engaged in resource and supply mobilization. Their services shall be utilized during Pre-Disaster period as well so that their support during disaster may come with greater zeal and vigour

5. Religious Bodies :

Religious Bodies, like occupation groups, are major local non- government setups who extend whole-hearted support during emergencies. As they have followings at the community level, these bodies shall be made partners in working for in community preparedness.

A. Pre-Disaster

- Disaster awareness generation
- Community preparedness

B. During – Disaster

- Relief distribution
- Counseling

C. Post-Disaster

- Resource mobilization.

6. Media :

From disaster management point of view Media may safely be divided into **print** and **electronic** media. The services of **Print Media** shall be utilized for the implementation of disaster prevention, mitigation and preparedness related activities through generation of community awareness and highlighting the best practices and case studies. The services of **Electronic Media** shall be taken during disaster specifically for keeping people will informed about measures being taken and for attracting support and fast-tracking mobilization of resources.

7. Para Military Forces :

The role of Para Military forces, as supportive to police force in emergency situation, is very important. The role of the Central Industrial Security Force, particularly in disaster involving industrial units or locations, is vital. The role of Border Security Force in the remote and inaccessible areas is equally important. They shall be included to play their specific roles.

8. Civil Defence & Home Guards :

The Directorate of Civil Defence has been officially attached to the Disaster Management Department. The Civil Defence Act has been suitably amended in the context of Disaster Management. Therefore, their involvement in disaster management at the local and community level is assured. Their participation in rescue and casualty management, transportation and supply services, sewage and disposal of corpses along with basic welfare service will bring about marked impact.

Home Guards, on the other hand, are the best ones to provide security related services, escort services to the injured and watch & ward services at the supply, resources and other strategic centres during disasters.

9. Armed Forces:

The Indian Armed Forces are known for their dedication and participation in socio-development and crisis-management roles. Their contributions in controlling the situation beyond the coping capability of civil administration have been immense. Therefore, a high degree of cooperation and co-ordination among the agencies involved in disaster management is required.

Since many a time, Armed Forces are solicited to provide assistance in the relief operations, it would be ideal to have suggestions from them while planning for disaster management. And, the resource and capabilities at the disposal of the Armed Forces should get reflected in the State Plan, specifically their role in providing support in emergency support functions such as communications search and rescue operations public works and engineering, food & civil supplies.

10. Ex-Service Men's Association:

Ex-Service Personnel are one of the pools of human resources that have not been properly utilized excepting for rendering security services in residential apartments and buildings. The services of these ex-Service personnel shall be utilized in prevention, mitigation and preparedness measures as well as in manning the Bihar State Disaster Response Force. They shall be included in the disaster management structure and assigned appropriate roles in community preparedness.

11. Public & Private Sectors (*Corporate Bodies*):

Both Public Sector Undertakings and Private Sector Corporate have always played the roles assigned to them in the best possible manner. But they have never been woven in the fabric of the disaster management system as stakeholders.

With the increasing incidents of disaster due to climatic changes, it has become almost a necessity to involve both the sectors and provide them with proper role and responsibilities within the disaster management system.

They may be approached to adopt a Block or Gram Panchayat for the implementation of the programme and activities in their own way and with their inputs so that an examples in better implementation in PPP mode be set as an example for the system to emulate.

Corporate Bodies

- Education & Training
- Providing Specialized equipments
- Donation for preparedness and post- disaster activities

12. International & Multilateral Agencies:

The international and multilateral agencies have been playing crucial role in all the three phases of disaster management. They have been providing abundance of support both in cash and kind. Such international bodies like Oxfam, DFID, USAID, UNDP, UNICEF, WHO, WFP, UNPF have not only made immense contributions but also galvanized international community of nations to pour support.

These international agencies may be approached to fund EOCs, Early Warning System, and Seismic Forecasting Stations etc. These agencies may also be solicited to organize contributions for funding disaster preparedness at the community level.

UNICEF

- Relief distribution
- Immunization
- Restoration of Health Infrastructure
- Supply of educational & other infrastructure to affected schools
- Restoration of sanitation & drinking water facilities
- Establishment of Child labour prevention school
- Supply of boats
- Training support to medical personnel to control epidemics
- Financial assistance for restoration & rehabilitation
- programmes for children and women.

UNDP

- Support in Disaster Preparedness
- Imitating Community Based Disaster Preparedness Programme
- Initiating sustainable livelihood programme
- Provision of tents, family relief kit
- Incorporation of mitigation in development planning
- Preparation of District, Block, Gram Panchayat Plan
- Support in designing & implementation of Early Warning System

WFP

- Food Aid to vulnerable communities
- Support for rehabilitation & reconstruction programme

UNPF

- Support in rehabilitation of agriculture, livestock, fisheries and local food production

WHO

- Assistance in various aspects of preventive and curative health care.

BBB