

MEGHALAYA STATE DISASTER MANAGEMENT PLAN

**2016
Volume 2**



**MEGHALAYA STATE DISASTER MANAGEMENT AUTHORITY
GOVERNMENT OF MEGHALAYA**

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MESSAGE



I take this opportunity to congratulate the State Disaster Management Authority (SDMA) for preparing a comprehensive State Disaster Management Plan which integrates all the four phases of disaster management namely, prevention, response, mitigation and rehabilitation.

This plan will provide direction and guidance to different stakeholders in dealing with crisis situation. It will also enhance their capacity and facilitate positive action in all the phases of disaster management. This plan will help in the conduct of capacity building activities for both urban and rural communities and their participation in exercises and activities relating to prevention and preparedness for tackling multi-hazard vulnerabilities.

This plan has also taken into account the challenge of climate change and related issues faced by society today and touch on local coping mechanism.

I am sure that implementation of the plan in the State will lead to making Meghalaya more resilient to disasters.


(Dr Mukul Sangma)

Prof. R. C. Laloo M.Sc, Ph.D.



Deputy Chief Minister
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MESSAGE

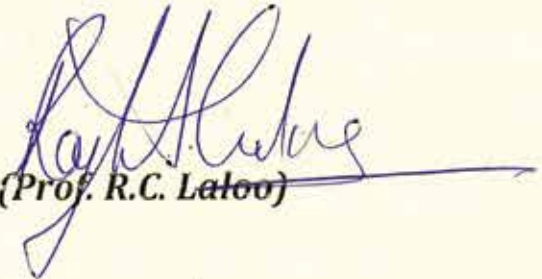


It is with a great joy to know that the Meghalaya State Disaster Management Plan is finally prepared.

The Plan will give a vast scope to the different stakeholders to tackle a wide range of disasters, both natural and man-made.

In this age of global warming and climate change, the plan will be a guiding light on how to take on the challenges that will prevail upon the State.

I, thus, dedicate this State Disaster Management Plan to the people of Meghalaya.


(Prof. R.C. Laloo)

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MESSAGE



The Disaster Management Act, 2005, stipulates that every State will prepare its own disaster management plan, which will provide a framework to deal more effectively, promptly and systematically with disaster situations.

The State of Meghalaya, which lies in the seismically active Zone V, is also prone to floods, fires, landslides, cyclonic storms and lightning strikes, besides earthquakes.

The Meghalaya State Disaster Management Plan has been prepared keeping in mind all aspects of disaster management such as disaster preparedness, post-disaster response, restoration and rehabilitation, long term mitigation etc.

I am sure that this plan will be a helpful resource for the State Government and its various stakeholders in minimizing the effects of various natural and man-made disasters in the State.

(K.S. Kropha)



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Chapter 1: Response

The Meghalaya State Disaster Management Plan has a ‘multi-hazard approach’ and it incorporates various actions in the form of ‘Trigger Mechanism’, which in essence are the Standard Operating Procedures (SOPs). SOP has been envisaged as a preparedness plan which comes into operation the moment an alert or warning of a disaster is received or on occurrence of a sudden disaster without warning. There will be simultaneous activation of all response and relief activities by all the government departments and other agencies without loss of crucial time. Activities such as evacuation, search and rescue, arrangement of shelter, provision of food, drinking water, clothing, health and sanitation, communication, accessibility and public information are important components of post disaster management, which would follow on the activation of Trigger mechanism. These activities are common to all types of disasters and will require the preparation of detailed action plans by each specified primary agency/authority /Stakeholders.

Ministries Responsible for Various Categories of Disasters	Ministries/Departments
Earthquakes and Tsunami	MHA/Ministry of Earth Sciences/IMD
Floods	MHA/Ministry of Water Resources/CWC
Cyclones	MHA/Ministry of Earth Sciences/IMD
Drought	Ministry of Agriculture
Biological Disasters	Ministry of Health and Family Welfare
Chemical Disasters	Ministry of Environment & Forests
Nuclear Disasters	Ministry of Atomic Energy
Air Accidents	Ministry of Civil Aviation
Railway Accidents	Ministry of Railways

Table No 1: Nodal Ministries at Union Level

SL. No	Hazards Specific	Nodal Departments/ Agencies	Supporting Departments/Agencies
	Earthquake	Department of Revenue & DM Dept	IMD, Geological Survey of India, NDRF, Armed Force
	Landslides	Department of Soil and Water Conservation	IMD, GSI, NESAC
	Floods/ Flash Floods/ Cloud Burst	Department of Revenue and DM	IMD, CWC, NESAC, NDRF, Department of Water Resource Department
	Fire	Police (Fire and Emergency Services)	Department of Revenue and Disaster Management
	Forest Fire	Department of Forest	Department of Revenue and Disaster Management
	Drought	Department of Agriculture	IMD, Department of C&RD, Department of Revenue and Disaster Management
	Cyclonic Storms	Department of Revenue and Disaster Management	IMD, Department of Agriculture and Horticulture, Department of Home, NESAC
	Hailstorms	Department of Agriculture	Department of Revenue and Disaster Management, IMD
	Road Accidents	Concerned District Administration	Department of Transport, PWD, BRO, Department of Home and Department of Health

	Civil Aviation Accidents	Department of Transport	Ministry of Civil Aviation, Home
	Rail Accidents	Ministry of Railways	Department of Transport Department of Health, Department of Home, Department of Revenue and Disaster Management
	Boat Capsizing	Concerned District Administration	Department of Home and Department of Health and Family Welfare
	Stampede	District Administration	Department of Health and Department of Home, Department of Revenue and Disaster Management
	Terrorism	Department of Home	Department of Health and Family Welfare
	Industrial	Department of Commerce & Industries	Department of Labour & Employment, Department of Home, Pollution Control Board
	Chemical	Department of Commerce & Industries Department	Department Labour, Department of Home, Admin, NDRF
	Biological	Department of Health and Family Welfare and Family Welfare	Department of Home, NDRF
	Mines Collapse/ Mishaps	Department of Geology and Mining	Pollution Control Board , Department of Health and Department of Forest
	Dam/ Reservoir Burst	Department of Power	Department of PHE, Department of Environment, Science & Technology, CWC.

Table No 2: The Nodal Department at State level, which will be responsible for preparing the Hazard specific Crisis Management Plans.

1.1 Response Management Arrangements

Disaster response plan is a framework required for managing disaster situations. The plan spells out the actions to be taken by the various agencies/departments involved in DM.

1.1.1 Approach

The approach of Meghalaya Government is for ensuring that those departments/agencies which are responsible for providing a particular emergency response service will adopt a planned, systematic and coordinated approach to make effective and optimum use of available resources.

1.1.2 Resource Support

A three tiered structure (Block, District and State) exists for prompt response to emergencies. The responsibility for initial response rests with the Village & Block. If the resources required to respond to an emergency are beyond the resources available in those levels, support will be sought from the District. When the scale of disaster is high which is beyond the capacity of the district to manage, assistance will be sought from the State and Centre and other States and International agencies.

1.2 Response Activities

1.2. 1 Warning

Most of the disasters except earthquake and fires can be predicted and the community likely to be affected could be forewarned about any impending disaster through a proper warning mechanism. Floods, droughts, cyclones, pest attacks, epidemics, etc., are some of the disasters for which adequate warning could be given. Disaster for which warning is not possible includes earthquakes, landslides, dam bursts, thunder and lightning, fire, chemical and industrial disaster. At the State level the following department/agencies are available for issuing warning in respect of disaster which usually affects the State. Deputy Commissioners / Sub-Divisional Offices (C)/ Block Development Officers should regularly check the information about the status of rising water level and prevalence of cyclonic wind (www.imd.gov.in/). During the monsoon season SDMA should also monitor the situation and regularly check the weather forecast AND prevalence of cyclonic wind on IMD website and status of rising water level in major river from CWC website and send messages to all the stakeholders of Disaster Management in the State in advance.

The agencies competent to issue warning or alert pertaining to various types of disasters are given below;

Pre warning:

Disaster	Primary Agency	Support Agencies
Floods	Central Water Commission (CWC)	IMD, Department of Water Resource, Department of Revenue and DM/SDMA
Cyclones	IMD	NESAC, Department of Revenue and DM, SDMA
Drought	Department of Agriculture.	Department of Revenue and DM, SDMA
Human Epidemics	Department of Health & Family Welfare	Department of Revenue and DM, SDMA
Animal and poultry Epidemics	Department of Veterinary and Animal Husbandry	Department of Revenue and DM, SDMA

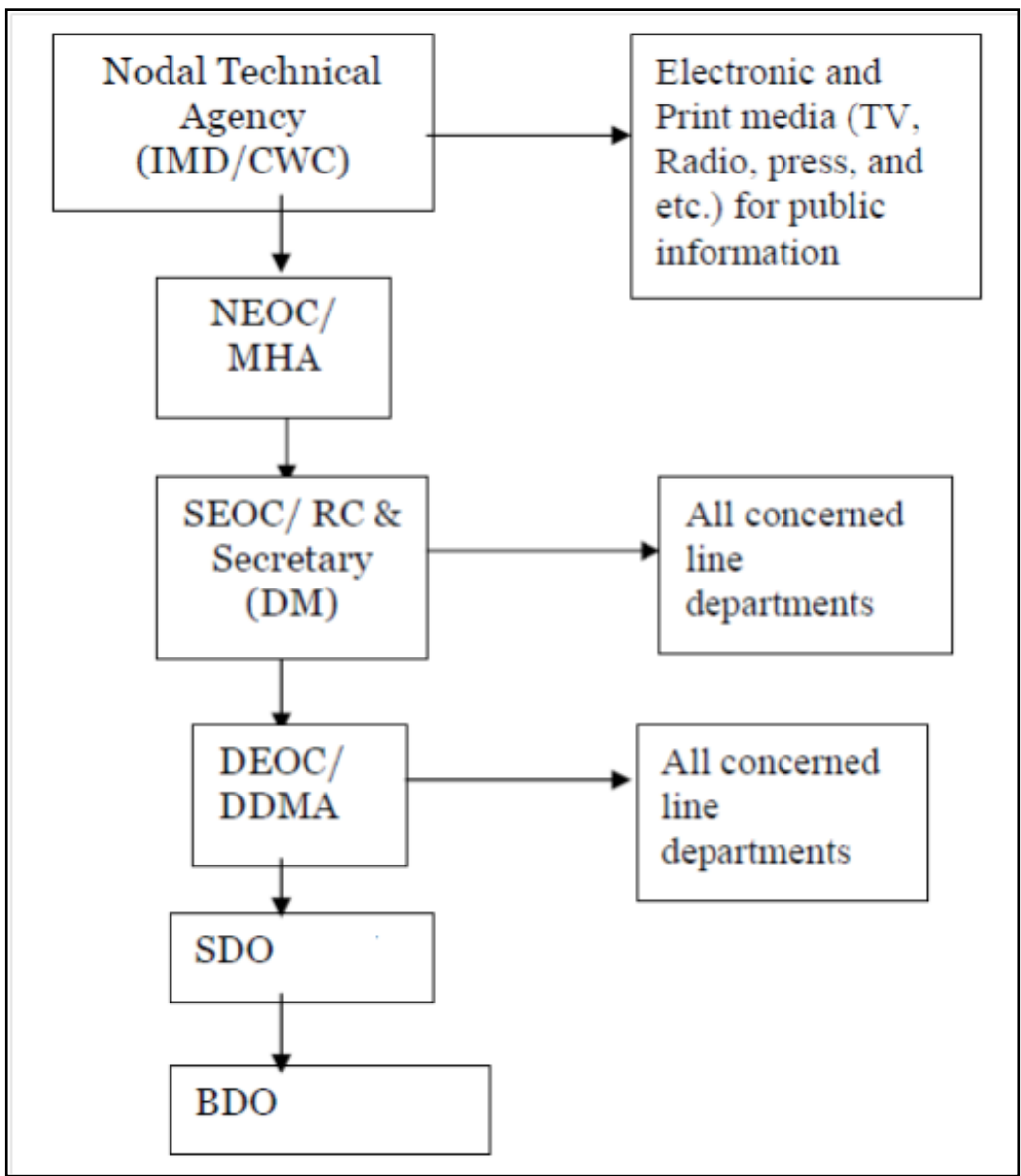
Subsequent to occurrence agencies competent to issues information regarding magnitude/ extent and severity of disaster:-

Disaster	Primary Agency	Support Agencies
Earthquake	India Meteorological Department (IMD),	Geological Survey of India (GSI), National Geophysical Research Institute
Industrial & Chemical Accidents	Department of Commerce and Industry	
Domestic Fire	Department of Home, Police (Fire and Emergency Services)	Revenue and DM, SDMA
Forest Fire	Department of Forest	
Pest Attacks	Department of Agriculture	Department of Revenue and DM, SDMA
Landslides	Department of Soil and Water Conservation	GSI, Department of Revenue and DM, SDMA

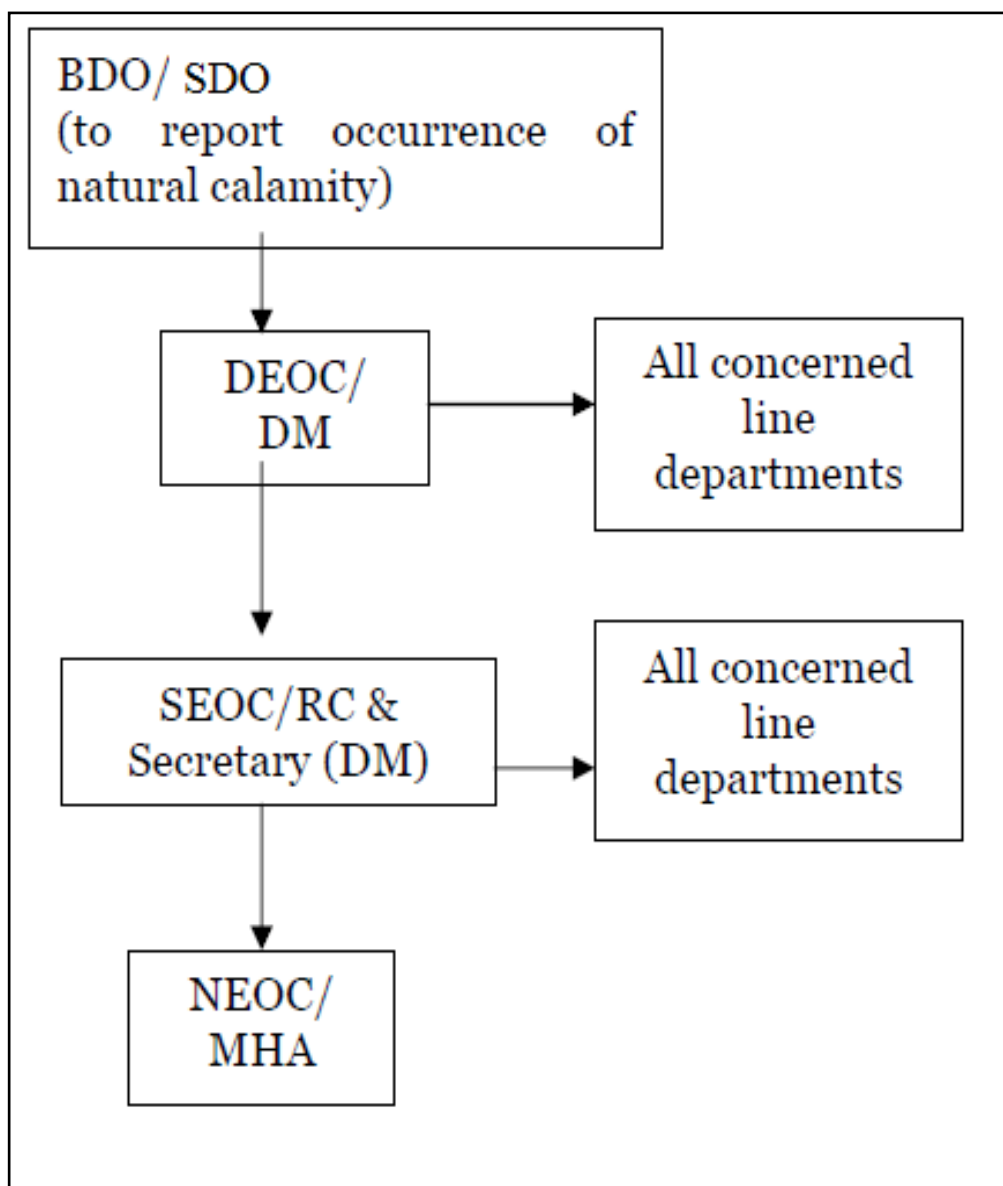
Advanced technology like, remote sensing, GIS, etc, have made predictions about impending disasters, especially for weather and climate related disasters more accurate. It will be ensured that the state of the art technology is used for predictions.

The State Govt. and the DCs of the districts likely to be affected by floods shall maintain regular contact with the Government officials of Assam about the rise of water level of Brahmaputra upstream in Assam for advance warning to the people residing in the plain belt of Garo Hills.

Communication system should be checked during normal time by MPRO and Home Guard and Civil Defence Personnels to ensure that they are operational and functional. Emergency telephone numbers should made known to the different stakeholders. Warning to people can be done through the Govt. field functionaries. The warning can be given to the public through the radio, TV, cable T.V., loud speakers and use of traditional methods such as by traditional beating of drums etc. (for cyclones, floods)and DDMA will ensure about it. On receipt of the warning, the District/ Block level machinery and the concerned departments at the State level will be systematically activated for prompt response.



Flow Chart No 1: Information flow chart in Case I: where early warning signals are available



Flow Chart No 2: Information Flow Chart in Case II: Where Incident happens without any early warning signals

1.2.2 De-Warning

In case the disaster does not occur as predicted, the responsible agency as per the Table above issues a de-warning. The de-warning will initiate the following:

- Dissemination of De-warnings by respective districts and blocks
- EOC will revert to normal functioning.
- The specialised teams (defence/search and rescue/medical). IRTs shall also stand-down.
- Material resources will be returned/stored back

1.2.3 Search & Rescue

The first priority in the aftermath of a disaster is to minimise loss of lives by undertaking search and rescue and providing medical treatment. People who are trapped under destroyed buildings or are isolated due to any disaster need urgent support. The DC, in coordination with local authorities and teams will be responsible for the search and rescue operations in an affected area. In doing so, the DC will be guided by relevant DM plans and will be supported by Government departments.

1.2.4 Evacuation

Evacuation is the planned relocation of persons from dangerous or potentially dangerous areas to safer areas' and eventual return.

Community is always the first responder to any calamity. Immediately on the warning or occurrence of disaster, the village/community DM plan shall be activated. All the different Disaster Management Teams (DMTs) should begin their respective activities. This team shall immediately inform all the authorities, the Deputy Commissioner/ the Block Development Officer/ Medical Authorities/ the Police, etc. At the same time, the village Disaster Management Committee shall activate their Disaster Management Teams (DMTs). The decision to order evacuation rests with the DC on the basis of advice from BDO, police and other experts, unless time constraints prevent this consultation. Once the decision is made, the BDO and the local Police will be responsible for carrying out the evacuation process.

1.2.5 Evacuation Process

Evacuated people are taken or directed to a place of relative safety, usually to an identified shelter or an emergency relief centre as per the Village and Block DM Plans.

BDO will be responsible to ensure the registration of the evacuated people. Emergency relief will be provided to evacuees as needed. They will remain at the centre or in other emergency shelters until the danger is over and it is safe for them to return home. In situations when evacuated persons must remain away from home for an extended period, temporary accommodation may be 'necessary. This will be managed under the recovery arrangements.

Operating Procedures for evacuation

- BDO/ BDMC and VDMC will be responsible for identifying and selecting and safe shelter sites within close proximity (one hour walk and or within 5 Km) of dwellings.
- Identifying disaster shelters (such as high grounds/unaffected schools or other such places) and managing people mobility to these shelters
- Alerting villages/communities for evacuation; arranging boats and vehicles to most vulnerable villages and evacuating people from areas most affected and administering emergency relief
- Alternate routes will be planned well in advance.

- For appropriate security and law and order, evacuation will be carried out with assistance from police, fire brigade, local community leaders and NGOs/CBOs working in the community.

1.2.6 Medical Aid

First-aid treatment of injured should be administered and transporting the injured to the nearest hospitals and constituting mobile medical teams and deploying such teams to most affected areas and stock piling of life saving drugs should be done. Training and equipping the groups with first-aid kits under the supervision of VDMCs, should be carried out to the public. Post disasters, surveillance of the outbreak of diseases and developing mechanisms for transmitting information to medical and relief authorities at the state and district levels should be developed. Protection, treatment and disinfection of drinking water sources and providing of water treatment tablets such as Halogen tablets should be kept ready.

1.2.7 Shelter

Identification of places like schools, community halls and other places where temporary shelters camps can be set up; supply of tents in advance to critically vulnerable villages for setting up of relief camp, and arrangement of food/drinking water/medicine in the shelter places should be taken up as top priority. Identification of animal shelters and supply of fodder and essential medicines have to be taken care of, Temporary supply of safe drinking water to the shelter shall be provided.

1.2.8 Coordination with Air Force Authorities for Air dropping

SDMA/SEC shall decide about air dropping of essential commodities in cut off and inaccessible pockets in recommendation of DC/DDMA. SEC will liaise with AIR Force or Govt. Of India for requisition the helicopters. The DDMA will arrange preparation of food packets for airdropping.

1.2.9 Rapid Damage Assessment

In the aftermath of a disaster, the district administration and local authorities receive several requests for support from people, but resources at the disposal of the administration are over-stretched. Hence, it is necessary to utilize and deploy the resources in a well-organized manner, Officials from different departments and agencies with support from head man /traditional authority/local influential person shall carry out a preliminary “need and loss assessment” within 24 hours. The assessment will be made by spot visits, aerial surveys and from information collected from primary and secondary sources. After the assessment is completed district administration shall mobilize resources for relief accordingly.

1.2.10 Immediate repair of infrastructures

The Departments/Agencies of the State Government responsible for various infrastructures will take immediate steps to restore the damaged essential services such as roads, electricity, drinking water, supply, telecommunication etc caused by disaster to enable rescue & relief operations to be conducted smoothly.

1.2.11 Disposal of dead bodies and carcass

One team at each block should be constituted under the Block Veterinary Officer with the members from Police and Health and Civil Defence. Their function will be to arrange the disposal of dead bodies as per procedure and disposal of carcass, etc. The process of identification and handing over of dead bodies to the next of kin shall be followed according to the laid down procedures. Mass burial/disposal of dead bodies will be done as a last option by the Government. While disposing the dead bodies local religious & cultural practices shall be respected. At the village level a team of volunteers will be nominated by the VDMC and trained by the Civil Defence about the procedure.

1.2.13 Information and Media Management

The dissemination of accurate information through electronic and print media shall be made by State Relief Commissioner /DC or his authorized representative at pre-designated time as a single source of information from Government through regular press briefings.

1.2.14 Post-relief assessment

SDMA, with assistance from Government departments, district administration and local authorities will document lessons learnt from the disaster experience, for future guidance and for improving its future management of disaster.

Chapter 2: Role and Responsibilities Incident Response System and Incident Response Team

2.1 Setting up of State Incident Response System:

IRS constitutes an important part of the disaster response system for management of disasters at the National, State, District and Local levels. IRS is a modified version of Incident Command System which is in practice in the United States of America (USA) for management of disasters or events.

IRS is an effective mechanism for reducing the scope for ad-hoc measures in response. It provides a participatory, well structured, fail safe, multi disciplinary, multi departmental and systematic approach to guide administrative mechanisms at all levels of the Government. It functions through IRTs in the field. In line with our administrative structure and DM Act 2005, ROs have been designated at the State and District levels as overall in charge of the incident response management.

The IRS has two main components; a) Command Staff and b) General Staff.

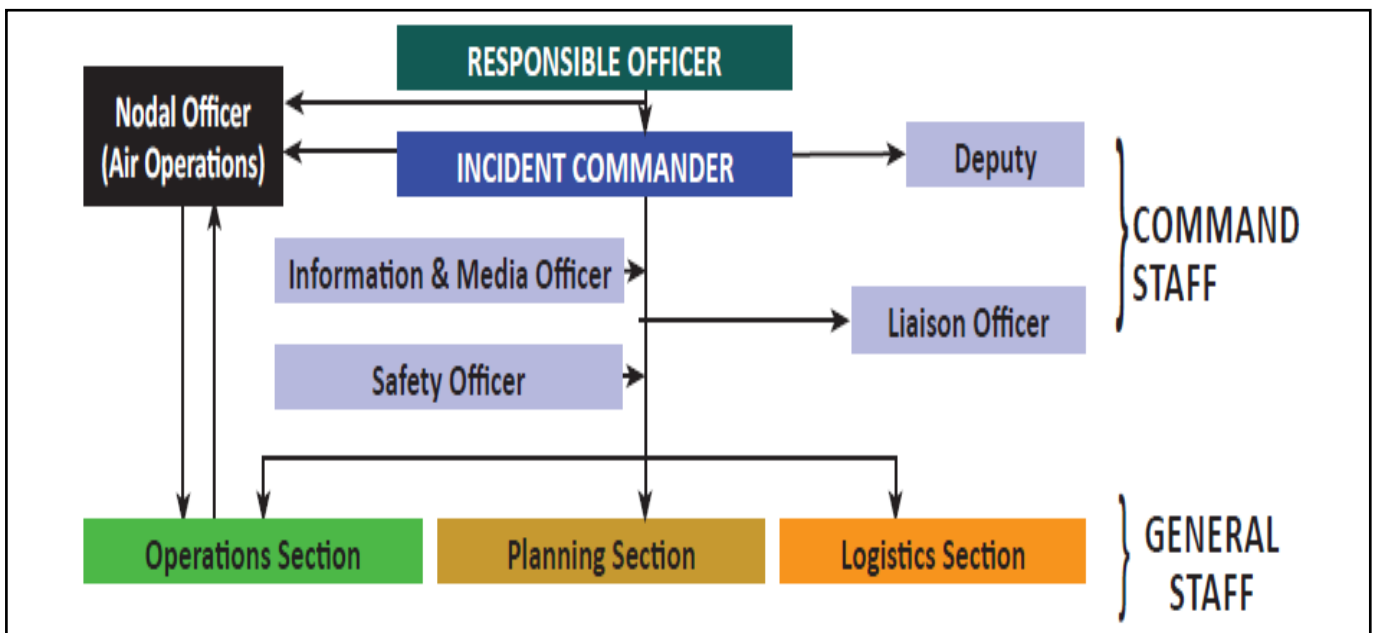


Figure No 1: IRS Organisation

2.2 IRS Component

The Command Staff consists of Incident Commander (IC), Information & Media Officer (IMO), Safety Officer (SO) and Liaison Officer (LO). They report directly to the IC and may have assistants. The Command Staff may or may not have supporting organisations under them. The main function of the Command Staff is to assist the IC in the discharge of his functions.

2.3 General Staff

The General Staff has three components which are as follows;

2.3.1 Operations Section (OS)

The OS deals with all types of field level tactical operations directly applicable to the management of an incident. This section is headed by an Operation Section Chief (OSC). In addition, a deputy may be appointed to assist the OSC for discharging his functions depending on the magnitude of the work load. OS is further sub-divided into Branches, Divisions and Groups which assist the OSC / IC in the execution of the field operations.

2.3.2 Planning Section (PS)

The PS is responsible for collection, evaluation and display of incident information, maintaining and tracking resources, preparing the Incident Action Plan (IAP) and other necessary incident related documentation. They will assess the requirement of additional resources, propose from where it can be mobilised and keep IC informed. This Section also prepares the demobilisation plan.

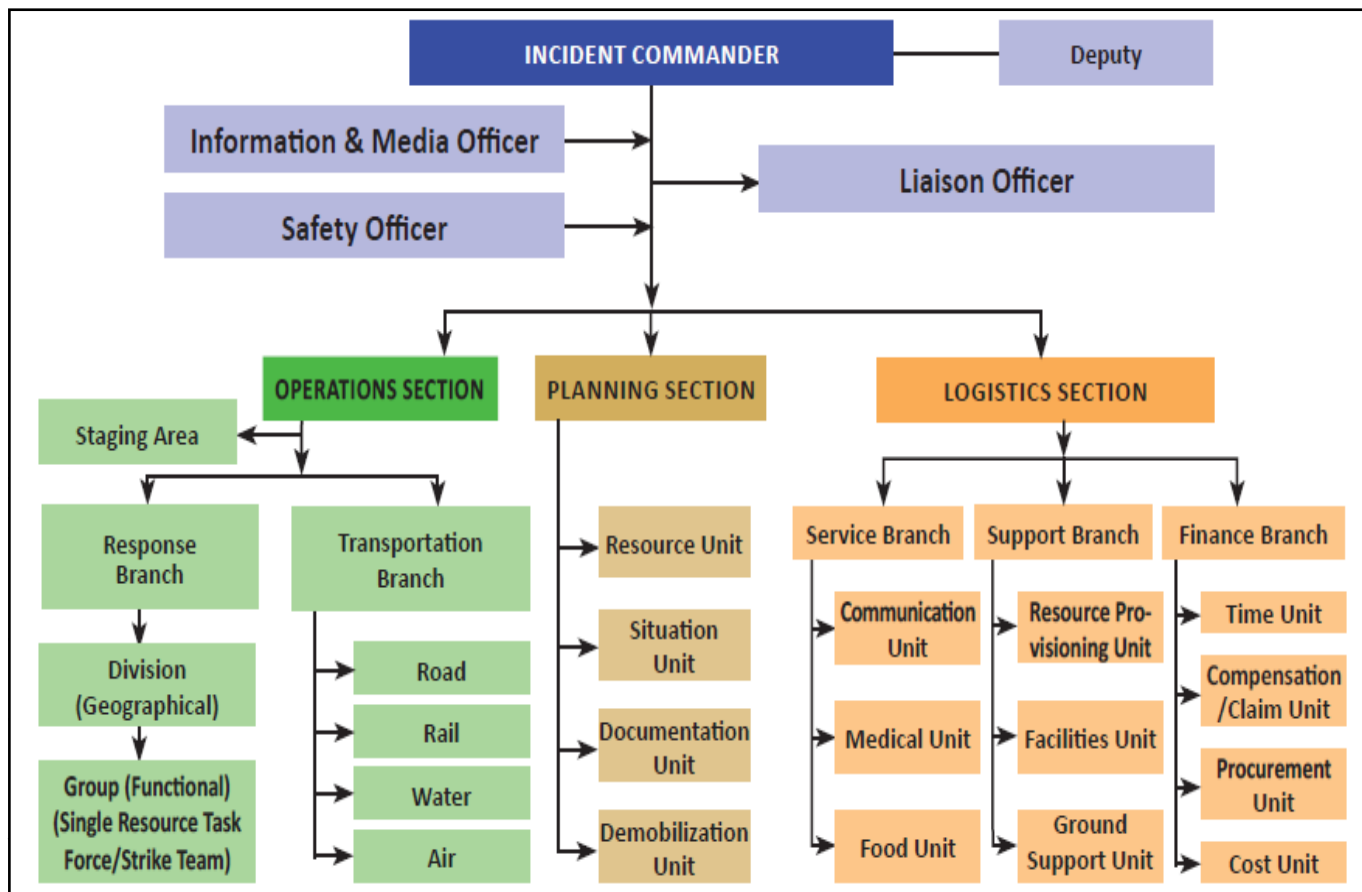


Figure No 2: IRT Framework

The GoI will play a supporting role by way of assistance in the form of resources, manpower,

(NDRF, Armed & Para Military Forces), equipments and funds. At the GoI level, the National Crisis Management Committee (NCMC) or National Executive Council (NEC) will coordinate and provide the required resources. NDMA will also help in monitoring the coordination of response.

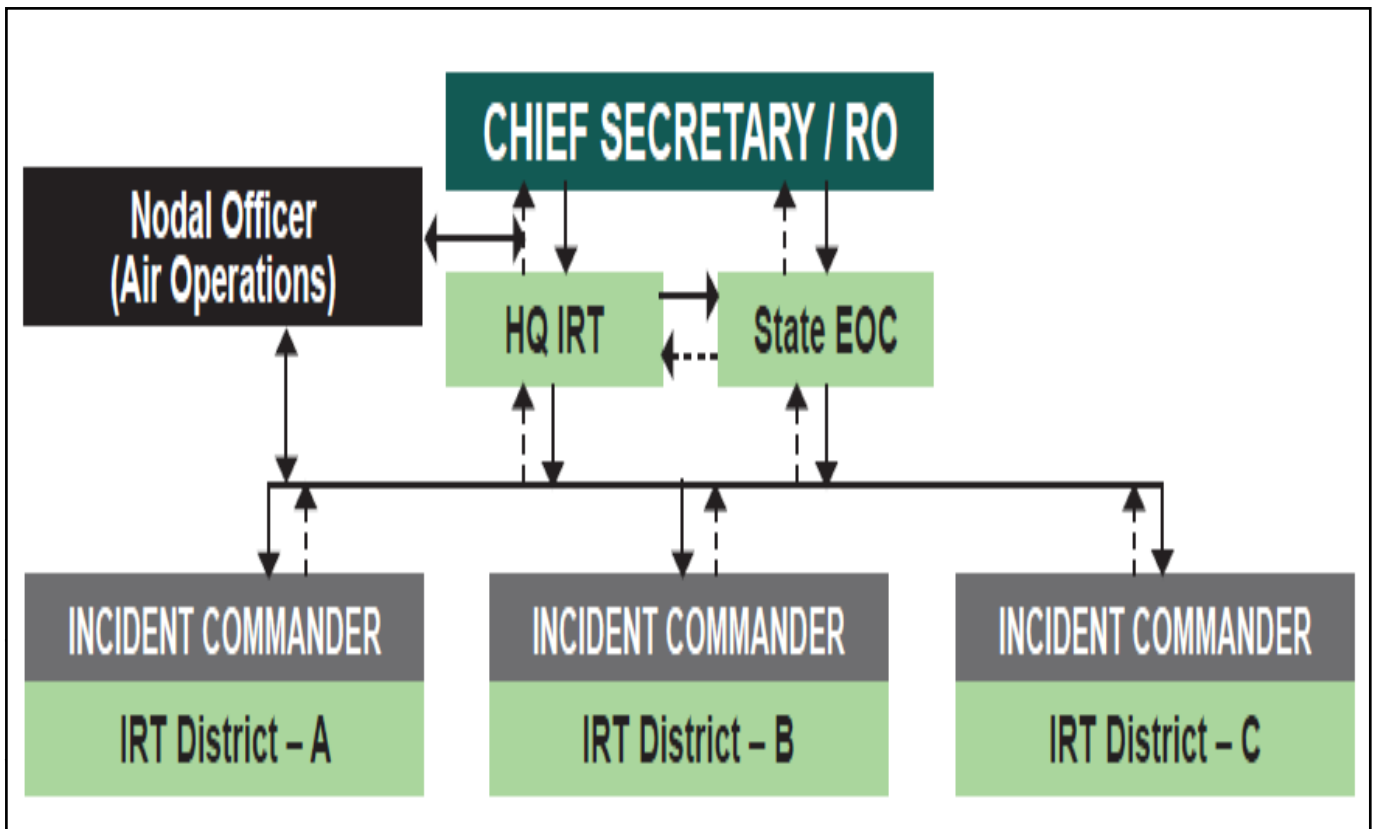


Figure No 3: IRTs at State Level

The State Government / CS will designate various officers of line departments for the corresponding IRS positions to perform duties.

Being the administrative head of the State as well as the CEO of SDMA, the CS is designated as the RO of the State. He will however remain fully briefed by EOC and IC and be aware of all developments and progress of response activities at all times. In case an incident is beyond the control of a District administration or a number of Districts are affected, the RO of the State will consider the setting up of an Area Command and designate an Area Commander (AC).

2.4.3 Coordination of Response at District Level

The heads of different departments in the District will have separate roles to play depending on the nature and kind of disaster. The roles and responsibilities of the members of the DDMA will be decided in advance in consultation with the concerned members. The roles of other line departments also have to be clearly delineated in various disaster situations in the District DM Plan. The District Magistrate / DC / RO will issue a Standing Order for formation of IRT at District headquarters / Civil Sub-Division and Block levels. The hierarchical representation of RO with district EOC, HQ IRT and its lower level of IRT at sub-division and Block are shown below in the figure.

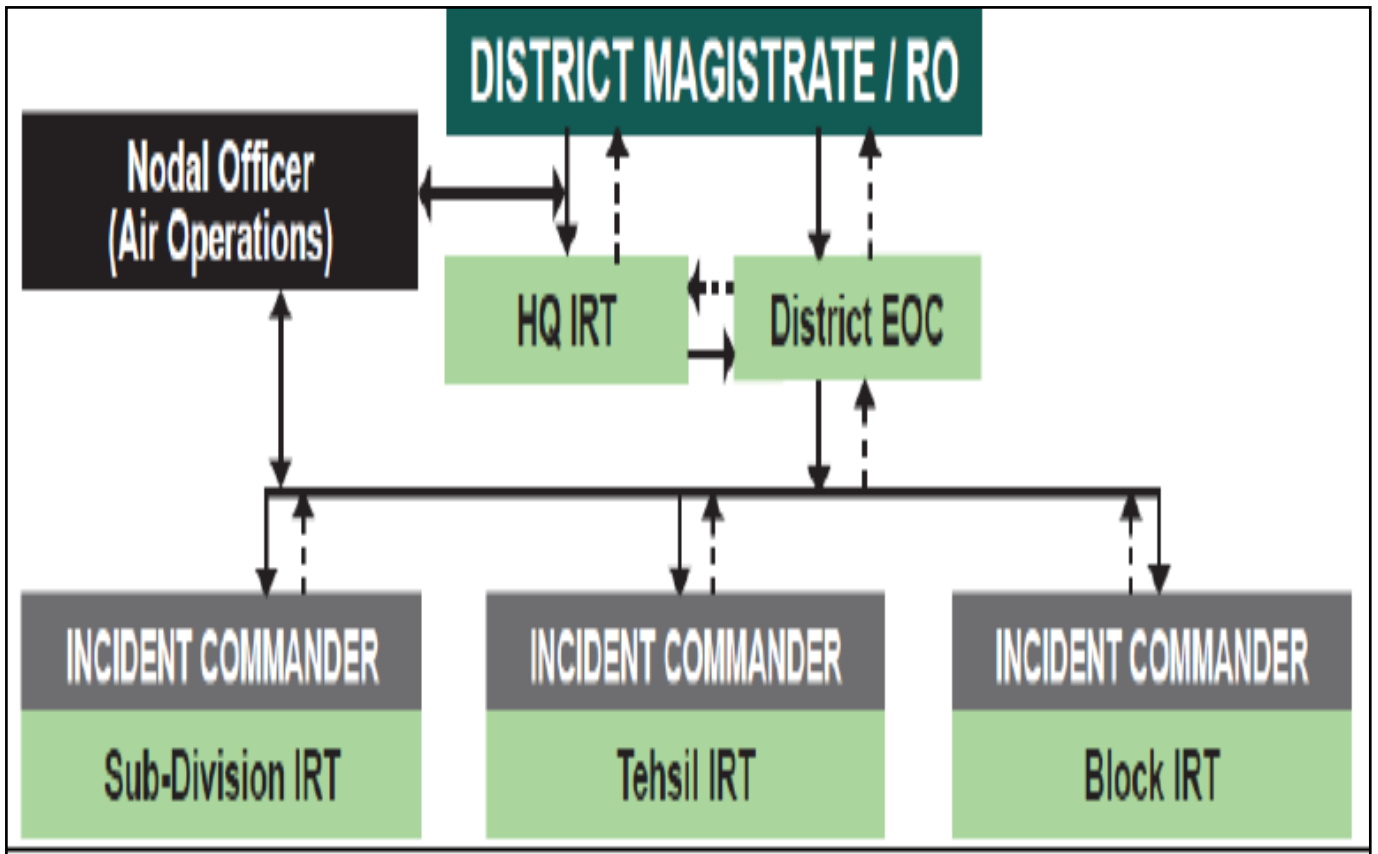


Figure 4: IRTs at District Level

Disaster Specific Action Plan

Chapter 3: Earthquakes

The Earthquake Vulnerability Atlas of India reveals that whole of Meghalaya is at a Very High Risk Zone for earthquake, i.e. seismic zone V. Meghalaya State has a long history of earthquakes and it witnessed a major earthquake (8.7 on Richter scale) in 1897 which had caused widespread loss of human lives and properties. This Chapter will mainly focus on the Action Plan of the State Government to manage earthquake disaster after its occurrence.

L0 level disaster:

This is a no disaster situation i.e. normal times when the disaster management system should be maintaining a close watch over the state of preparedness. Earthquakes of magnitude less than 5.0 may occur in the state and are generally non-damaging. However, effort should be made at local level to find out damage/loss if any and to take appropriate actions. This is the most important period for disaster prevention, preparedness and mitigation when these activities are taken up actively.

L1 level disaster:

The L1 level disaster is designated when earthquakes of magnitude greater than 5.0 and less than 6.0 occur. When reported from any quarter, necessary actions are set into motion, without formal orders from anywhere, some basic initial management response steps alerting all concerned according to a predetermined procedure. Generally district administration should be able to manage earthquake disaster of this level.

L2 level disaster:

The L2 level disaster is designated when earthquakes of magnitude greater than 6.0 and less than 6.7 occur. This should entail triggering of response steps, which would be set into motion without formal orders from any quarters. The mitigation, relief and rescue operations would swing into action simultaneously. The State Government is likely to be involved in relief and response measures.

L3 level disaster:

The L3 level disaster is designated when earthquakes of magnitude greater than 6.7 occur. Large scale deaths and destruction is likely to take place. The assistance of Central Government, its Agencies, NDRF and Armed Forces may be required to deal with the situation.

Real Time Information on Earthquake

The IMD has been designated to monitor seismic activity in and around the country and notify the user agencies including the State Governments about the magnitude and epicenter of the earthquake as soon as it occurs. The State and district EOCs can also obtain information about occurrence of earthquake either directly contacting the IMD office or checking up with IMD website.

3.1 Strategic Plan

Tasks	Nodal Agencies	Coordinating Agencies
Re-framing the building bye-laws based on the relevant BIS (Bureau of Indian Standards) codes and their proper implementation and stricter legislation for the State.	Department Urban Affairs	SDMA
In high-risk areas all buildings should in-corporate earthquake resistant features.		
Public utilities like roads, water supply system, communication network, electricity lines etc. must be earthquake proof to reduce damages to the infrastructures, and alternative arrangement for the same must be developed.	PWD (R) Department of PHE, MeECL, BSNL, PWD (B)	SDMA and DDMA
Advisory for Retrofitting of the weak structures.	Department of Urban Affairs	
Community buildings and other buildings used by large number of people such as schools, dharamshalas, hospitals, Churches etc. must be made earthquake resistant. (Lifeline Buildings)	Department of Urban Affairs & PWD (B)	
Improving educational curricula in technical institutions and technical training in polytechnics and schools to include disaster related topics.	Department of Education	SDMA
Supporting Research & Development in various aspects of disaster mitigation, preparedness and prevention and post disaster management.	SDMA	SDMA
Preparation of literature in local languages with dos and don'ts for the building constructions.		
Getting community involved in the process of disaster mitigation by providing them proper education and awareness.		
Supporting local technical institutions/colleges to conduct and organize research, and organize exhibitions or programs for public awareness.		
Networking of local NGOs working in the area of disaster management.		

3.2 Emergency Plan

Tasks	Nodal Agencies	Coordinating Agencies
Maintenance of law and order.	Department of Home (Police)	SDMA and DDMA
Condoning off severely damaged structures that are likely to collapse during aftershocks.		
Recovery of dead bodies and their disposal.		
Prevention of trespassing, looting etc.		
Evacuation of people from vulnerable built-up areas.	Home Guard and Civil Defence/ SDRF	SDMA and DDMA
Medical care for injured.	Department of Health and Family Welfare	DDMA
Supply of food and drinking water.	Department of PHE/ Department of Food and Civil Supply	DDMA

Temporary shelters like tents, metal sheds etc. [Metal sheds are typically a simple, single-storey structure built with corrugated iron or tin sheets at roof (A) on wooden (timber or bamboo) framed truss (B) supported by wooden (timber or bamboo) or masonry wall or pillars (C) to provide shelter].	Department of Revenue and DM/ PWD (B)	DDMA
Quick assessment of damage and demarcation of damaged areas according to grade of damage.		
Restoring lines of communication and information.	BSNL, MPRO, NESAC, NECTAR	DDMA

3.3 Sequence of Action at State Level.

Day One

Zero Hour

- Control room sends message by SMS followed by automated call to everyone
- Officers and staff assemble at their respective centres in minimum time not more than 45 minutes.
- SEC/SDMA establishes immediate contact with all the stakeholders (Ministries/State Governments/DG NDRF/Air Force/ Paramilitary Force/Civil Defence) by way of video Conference. In the event of failure of Video Conferencing set-up, other available means of communication may be used.
- Rapid situation analysis conducted by available means and report prepared.
- Establish communication link by activating alternate communication equipment i.e. satellite phone, HF / VHF set, HAM Radio, VSAT etc. in State / District EOCs and Block control rooms
- Verify the authenticity of the incident from agencies like IMD, CSIR-NEIST, and also from District / Block control rooms, Police and Fire Brigade control rooms

Past Zero Hour

- Fully equipped SDRF battalion to move immediately by Air/Road.
- First response group moves along with SDRF to set up a response centre at ground Zero. All the responders shall take basic sustainability kit with them.
- A basic relief kit should also go with SDRF. The kit should be mobilized by SDMA, by way of tapping prospective donors already registered with it.
- Maps of affected area to be displayed in control Room for tracking the response and relief activities.
- All the important contact information of the stakeholders may be displayed prominently in the Control Room and the Operations room of SDMA.
- A senior/middle level group of officers corresponding to high level SCMC should be activated to maintain horizontal information sharing and coordination amongst Departments.

- SDMA core committee or SEC to meet twice i.e. at 10:00 and 18:00 to take stock and decide upon various issues relating to relief operations.
- The ground zero report received (twice daily) from First response Group at crisis site.
- Relief to line up for next day. Requirement for rescue material depending upon the kind of disaster may be assessed.
- A message to be sent to the first response Group regarding Relief lined up for the next day in order to help them plan delivery and distribution at crisis centre.
- SDRF of the neighbouring State could be tapped to pitch in their efforts.
- Neighbouring State Governments may be requested to provide urgent relief including water.
- Movement of Official delegations/Media/Philanthropic Organizations to be regulated to avoid undue stress on scarce logistics resources at ground Zero.
- Requirements for body bags and coffins may be assessed.
- Press release to be given at the end of the day.
- State Emergency Operation Centre to set up desk to attend the missing person inquiry, transmission of such details to respective authorities and response to public.
- Another desk should be set up in State Emergency Operation Centre to offer Psychological counselling at phone to disaster hit persons.
- All the call received by Control Room during the complete period of crisis management may be recorded and categorized.
- Media centre to provide facility for uploading photos of missing persons.
- Control centre to send an email including the summary report at the end of the day and the press release
- A copy of these reports may be filed in the Daily Diary maintained by State Emergency Operation Centre for the period of Rescue and Relief, for future reference.
- In case of L-2 level and above event, overall management of SEOC shall be taken over by PS (Revenue and DM) Contact the Heads of all line departments including the Information Department to reach SEOC, Activate IRS
- Request for the services of NDRF and Armed forces, if required through designated representative
- Maintain constant touch with the National / District and Block EOCs
- Alert all major hospitals to make necessary arrangement for treatment of injured
- Arrange to shift evacuated persons to temporary shelters and ensure provision of food, water facilities, blankets and storage of relief materials
- Arrange road, rail and air transport at State / District headquarters for dispatch of relief materials to the affected areas
- Set up field hospitals near the affected areas

Day Two

- Central delegation including medical teams, Communication experts and Power engineers, depending upon the requirement conveyed by First response centre and as decided by SDMA/SEC, to move to crisis site.
- A set of volunteers depending upon the time of disaster and the projected need, could be channelized from Centre and neighbouring States.
- The delegations and all the responders should move basic sustainability kit, if suggested by First Response Group.
- Relief Mobilization by Air to continue on Day two for emergency requirements, water and RO plants with operator.
- Relief Coordination in SDMA to coordinate the relief collection activity in the State. Government may coordinate for aggregation of relief efforts of NGOs at the State Level.
- Possibility of storage at the point of dispatch and delivery may be explored.
- Identified locations may act as relief collection and coordination centres for the people, NGOs and private sector of the adjoining area.
- Other activities as initiated on Day One to be reviewed and continued.
- Decision may be taken regarding continuing relief exercise by Air beyond Day two.
- Requirement for DNA, finger printing of the dead may be assessed.
- Instruct to set up Coordination Centres at the Resident Commissioner's Office in New Delhi and other Metro Cities as well
- Restore essential services i.e. power, water supply, telecommunication facilities of SEOC, headquarter, AIR, Doordarshan, Governor, Chief Minister, senior officials of the State bureaucracy on priority basis

Day Three to Day 'N' (N=day on which S&R ops are concluded)

- First Response team to give morning and evening reports.
- Followed by SEC/SDMA meetings to modulate response
- Relief work to continue as per systems in place.
- Media assessment to continue
- Control room procedure to continue
- All the responsibility centres to continue as per the protocols and decision taken by the core committee of SDMA and SEC
- Press release to be issued by the end of the day.
- Arrange for disposal of unidentified and unclaimed dead bodies
- Activate short and interim relief measures

Day 'N' Plus One Day

- SDRF Battalions return.
- First Response team returns
- Decision to be taken for continuing Relief Operations post Rescue.
- Accordingly, Operations may be up scaled or downscaled.

Debriefing sessions

- With NDRF
- With First Response team
- With stakeholders (Central Ministries/ State Governments/Agencies involved)

Day 'N' plus One Week

- Submission of written reports by all the Stakeholders
- The reports shall include a brief regarding their experience, the problem areas encountered by them and their suggestions for improving the systems.

Day 'N' plus Two Week

- Compilation of action taken report by SDMA.
- The SDMA compilation should be inclusive of the daily report maintained by the State Emergency Operation Centre, stakeholders' reports, inputs given by the responsibility centres within SDMA, important media inputs and any other relevant material.

Day 'N' plus Three Weeks

- Workshop on lessons learnt from crisis
- Review of SOP on the basis of Lessons learnt.

3.4 Consolidation & Reconstruction

- Detailed survey of building for assessment of damage and decision regarding repair, reconstruction and strengthening or demolition.
- Repair, reconstruction and seismic strengthening or demolition.
- Selection of sites for new settlements, if required.
- Execution of the reconstruction programme.
- Review of the existing seismic zoning maps and risk maps.
- Review of seismic codes and norms of construction.
- Training of personnel, engineers, architects, builders and masons.
- Statistical studies regarding and earthquake.

An effort needs to be made in the emergency phase, to involve the affected people to the maximum extent so as to create a feeling of self-reliance.

Chapter 4: Cyclone

Cyclones are caused by very fast moving winds which can cause potential damage. This disaster occurs during rainy and summer season due to building up of low pressure zones.

4-stage warning system for Tropical Cyclones

1.) Pre-Cyclone Watch

It is issued when a depression forms over the Bay of Bengal irrespective of its distance from the coast and is likely to affect Indian coast in future. The pre-cyclone watch is issued by the name of Director General of Meteorology and is issued at least 72 hours in advance of the commencement of adverse weather. It is issued at least once a day.

2.) Cyclone Alert

It is issued at least 48 hours before the commencement of the bad weather when the cyclone is located beyond 500 Km from the coast. It is issued every three hours.

3.) Cyclone Warning

It is issued at least 24 hours before the commencement of the bad weather when the cyclone is located within 500 Km from the coast. Information about time /place of landfall is indicated in the bulletin. Confidence in estimation increases as the cyclone comes closer to the coast.

4.) Post landfall outlook

It is issued 12 hours before the cyclone landfall, when the cyclone is located within 200 Km from the coast. More accurate & specific information about time /place of landfall and associated bad weather indicated in the bulletin. In addition, the interior distraction is likely to be affected due to the cyclone are warned in this bulletin.

Warning Dissemination process

1. Cyclone/flood forecasting is generally the responsibility of the Indian Meteorological Department (IMD). IMD is the nodal agency for providing cyclone warning services. IMD's INSAT satellite based Cyclone Warning Dissemination System (CWDS) is one of the best currently in use in India to communicate cyclone warnings from IMD to community and important officials in areas likely to be affected directly and quickly.
2. After getting information from IMD, warning dissemination is a responsibility of State Government. The PS (Department of Revenue and Disaster Management) is responsible for disseminating cyclone warnings to the District Administration and Line Departments. District Administration in turn is responsible for dissemination of cyclone warning to public.
3. On receiving an initial warning, the office of the PS (Department of Revenue and Disaster Management) disseminates the warning to all Line Departments, the District administration and DG Police.

4. The state EOC and control rooms of the other line departments at the State level as well as district level also get the warnings. The control rooms are activated on receiving the warnings.

4.1 Strategic Plan

Strategic Plan	Nodal agencies
Construction of shelters as per BIS norms along the cyclone prone villages of the district.	Department of C&RD
Up gradation of primary schools to serve as shelters and making provision for drinking water and toilets. this can be done from the fund available from various programmes like BADP (border area development programme ,SSA (Sarva Shiksha Abhiyan), BRGF etc.	Department of Border Area Development and Department of Education
Strengthening of embankments in the vulnerable areas.	Department of Water Resource
Arrangement of strong and reliable communication system in cyclone prone areas.	MPRO/ Telecom
Setting up of control room during cyclone season to monitor the situation and maintain close contact with the IMD.	SEC
Generate mass awareness on preparedness and mitigation measures for cyclones.	DDMA
Communicate Impending Storm Through Public Address System, Nic And / Through Rising of Warning Flags at Village Level.	DDMA/BDMC/VDMC (district administration)
Local youth at the village should be involved in awareness programme, rescue and relief operation.	
People should be asked to listen to the AIR/DD/TV bulletins.	DIPR

4.2 Emergency Plan

Pre Cyclone Measures

Task	Nodal Agencies	Support Agencies
Conduct mock drills before the cyclonic season	DDMA	SDMA
Identify cyclone shelters. Construct/ repair embankments in vulnerable areas.	PWD/Water Resources Department DDMA	Department of Revenue and DM
Prepare village level contingency plan.	VDMC	Management
Keep 25 volunteers ready at every village for search and rescue work.	VDMC	Department of Revenue and DM
Receipt of Warning and dissemination to All concerned Deputy Commissioners as well as Control Rooms of the district/s likely to be affected as per preliminary warning of IMD and to village level functionaries on the impending cyclone.	IMD	DIPR, Department of Revenue and DM AIR/DD/ TV BDMC, DDMA
Instruct and alert all heads of departments of the key line departments to activate their departmental plan and SOPs for Cyclone response.	All the Departments	Department of Revenue and Disaster Management/ SDMA
Activate alternative communication equipments i.e. satellite phones, HF/VHF sets, Ham radio, VSAT in State EOC and, District control rooms	MPRO, NIC, Department of Information Technology	DDMA, Department of Revenue and Disaster Management/SDMA

Impose restriction on all transport activities heading towards areas that are likely to be affected by Cyclone.	Department of Transport	Home (Police)
Alert following emergency response forces to remain in readiness	<ul style="list-style-type: none"> - Home (Fire & Emergency Services) - NDRF - SDRF - Village Disaster Management Teams - Police, Home Guards - State Reserve Police Force - Army (if required) • Air Force (if required) 	DDMA, Department of Revenue and Disaster Management/SDMA
Ensure that the schools and colleges are closed in areas likely to be affected by Cyclone and associated hazards.	Department of Education	DDMA and SDMA
Health Department to activate their Departmental Cyclone Disaster Management Plan and Departmental SOPs for Management of casualties	Department of Health and Family Welfare.	EMRI 108, DDMA and SDMA
Ensure that the arrangement for basic amenities(shown below) at evacuation/relief centres are made by the respective departments: <ul style="list-style-type: none"> • Drinking water • Food • Clothing • Sanitation and hygiene, • Lighting • Medicines and other Health Care 	Department of food and Civil Supply , Municipal Chief Executive Officer, Department of Water Supply Dept., MeECL, Department of Health and family welfare	Department of Revenue And DM, DDMA, SDMA
Inform following agencies to be in a state of readiness for assisting in the Cyclone response measures (if required): <ul style="list-style-type: none"> • Public sector agencies • Private sector agencies • NGOs • CBOs • Volunteer Organizations 	Department of Social Welfare	DDMA and SDMA

During Cyclone Measure

Task	Nodal Agencies	Support Agencies
When Cyclone makes a landfall, Cyclone affected Dist. Collectors should send a communication to the State Govt. to declare the area as disaster affected, if necessary, (depending upon the nature and intensity of impact)	DDMA	Department of Revenue and Disaster Management/SDMA
Deputy Commissioner/s should send teams to the affected areas to take stalk of the effects of Cyclone and associated rain. Deputy Commissioner/s should send sector wise situation reports to: <ul style="list-style-type: none"> • State EOC/ PS (Revenue and DM) • MSDMA 	SDMA	Department of Revenue and Disaster Management

Deployment of following teams to Cyclone affected areas: <ul style="list-style-type: none"> • Emergency Communication Teams • Emergency Medical Services Teams • Search and Rescue Teams (With Equipments) • Preliminary damage Assessment Teams • Need Assessment Teams 	SDRF, NDRF, Home (Police) Department of Health and Family Welfare	DDMA and SDMA
Establish communication link with affected districts by activating alternate communication equipments such as Satellite Phones, HF/VHF Sets, Ham Radio, etc., in State/District EOCs.	MPRO	Telecom
Arrange dissemination of information about occurrence of Cyclone and areas that are affected by it to Media & Public.	DIPR, AIR, DD	DDMA and SDMA
Immediate mobilization of IRTs to areas affected by Cyclone and associated rains.	SDMA and DDMA	Department of Revenue and DM
Remain in constant touch with IMD for updates on weather forecast for the coming hours and plan accordingly.	SDMA	Department of Revenue DM
To establish camp hospitals near the affected areas. To make transportation arrangements to shift seriously injured persons to nearest Hospitals, Take sanitation and epidemic control measures for preventing any water borne disease. Keep adequate stock of essential medicines, first-aid etc. at Block/district hospitals Take steps to purify drinking water sources	Department of Health and Family welfare, Department of Transports.PHE	DDMA and SDMA

Post Cyclone Measures

Task	Nodal Agencies	Support Agencies
Arrange for S & R teams of Air Force (If required).	SDRF, NDRF, Indian Air Force	DDMA/SDMA, Department of Revenue and DM
State EOC, the DCs of the affected District(s) should ensure the response activities that are carried out immediately.	DDMA and SDMA	Department of Revenue and DM
To survey the access roads/ routes leading to the affected areas and manage traffic for mobilization of equipments, machinery and volunteers.	PWD (R), Department of Transport.	DDMA
Establish Media/Press Centre for media management and information dissemination	DIPR	Department of Revenue and DM
Remain in constant touch with IMD for updates on weather forecast for the coming days and plan accordingly.	IMD	DDMA, SDMA
After receiving the message of de-warning, ensure that people are moved back safely to their houses.	IMD	VDMC, DDMA, SDMA
Ensure relief disbursement, allotment of funds and grants to line department and district collectors for organizing emergency response, relief and evacuation arrangements	Department of Revenue and DM, Department of Finance	DDMA and SDMA

4.3 Advice to Public

Before the Cyclone

- Check the houses and secure loose tiles.
- Remove dead or dying trees.
- Demolish unsafe houses.
- Keep hurricane lamp and torch lights ready for emergency.
- Keep the transistor sets ready with dry cells.
- Keep the wooden boards and paper tapes ready for protecting glass windows.
- When Cyclone threatens
- Keep radio/transistor on.
- Avoid being misled by rumours.
- Fix up glass windows; provide strong support to outside doors.
- Keep hurricane lamps and torch lights ready for emergency.
- Get extra food, store extra drinking water.
- Be alert for high water as the river may flood.
- Well built double storied buildings on higher ground may serve as cyclone shelter.
- Get away from low lying areas.
- Move your valuable articles to upper floors.
- Remove cattle to safer places.
- Check if 'EYE' (refers to eye of the storm) passes over your area.
- Stay calm and face the emergency.

Post-Cyclone Measures

- Remain in shelters until you are advised to return home.
- Keep away from dangling wires from electric posts.
- Report anti social activities, if noticed, to police.
- Drive vehicles carefully.
- Report losses to authorities.
- Health department to disinfect water sources.
- Dispose of dead bodies and carcasses.

Chapter 5: Floods

Central Water Commission has developed a network of flood forecasting stations and issues Daily Flood Bulletins to all designated Authorities/Agencies of the Central Government and State Governments/ district Administration during the South East Monsoon season for all the major river basins in the following categories:

Category IV: Low Flood (Water level between Warning Level and Danger Level)

Category III: Moderate Flood (Water Level below 0.50m. less than HFL and above Danger Level)

Category II: High Flood (Water Level less than Highest Flood Level but still within 0.50m. of the HFL)

Category I: Unprecedented Flood (Water Level equal and above Highest Flood Level (HFL))

5.1 Strategic Plan

Activities	Nodal Agencies
Take necessary steps to repair/improve the channels to ensure free flow of flood waters.	Department of Water Resource and PWD
Undertake bank protection and anti-erosion works.	
Conduct regular inspection and strengthen flood protection embankment ring and other bunds using modern technology	
Cleaning/desilting of channels/ creeks to be undertaken for improvement of drainage system.	
Improvement of existing reservoirs, tanks etc. through Block Development Office	Department of C&RD
Construct community shelters / buildings at a raised location above higher flood level.	
Flood shelter should be constructed at raised places which at normal times can be used as primary school / ICDS (Integrated Child Development Services) Centre / non-formal education centres / continuing education centres / library.	
Raise the tube well heads.	
Undertake watershed management programmes and encourage rain harvesting technology.	Department of Water Resources
Prevent deforestation on hill slopes/ river catchments area.	Department of Forest
Afforestation of hilly region/flood prone areas is given top priority.	
District wise area specific mitigation plan for flood prone areas should be prepared.	DDMA
Conduct mass awareness programmes covering all the flood prone areas.	
Discourage encroachment on embankment and prevent damaging to the embankment.	PWD
Area flood mapping should be prepared.	NESAC
Establish good communication system in flood prone areas.	MPRO/ Telecom/ DDMA / SDMA

5.2 Emergency Plan

Responsibilities of the SDMA/ District Administration

Pre-Flood measures

Emergency Plan	Nodal Agencies	Support Agencies
Formation of a disaster management committee at district level.	SDMA/DDMA	NESAC
Classification of flood prone villages- District wise		
Identification of safe areas- District wise		
Preparation of inventories of rescue and relief materials available and listing them in registers with notice to the owners, especially of rescue items to make them available in an emergency.		
Operationalize control room.		
Liaise with military, BSF, Railway, NGOs, local bodies, electricity and telecommunication authorities. Identify high land for helipad and air dropping of food stuff.		
Strengthening and repair infrastructural facilities including Roads	PWD	
Maintain adequate stock of relief materials.	Department of Food and civil Supplies	
Ensuring sufficient stock of life saving drugs. Vaccines, disinfectants, etc. at appropriate places.	Department of Health and Family welfare	
Formation of action group of trained personnel including doctors and paramedical staff.		
Large scale mapping for delineating natural disaster prone areas.	DDMA / NESAC	
Provide good communication system.	MPRO/ Telecom	
Get the weather forecast, information on release of water from dams.	CWC/ DDMA	DCs/ SDOs/ BDOs can access the information

During the Flood

During the Flood	Nodal Agencies	Support Agencies
Evacuation of people and Cattle which required	DDMA	Department of Veterinary and Animal Husbandry
Conduct search and rescue and evacuation operation.	DC/DDMA	Home Guard and Civil Defence/ SDRF
Ensure availability of food stuff in relief camps.	DC/DDMA	Department of Food and Civil Supplies
Ensure adequate supply of potable water.	DC/DDMA	Department of PHE
Ensure availability of medical facilities like hospital beds, medicine, ORS etc.	DC/DDMA	Dept of Health and Family Welfare

Post Flood measures

Post Flood measures	Nodal Agencies	Support Agencies
Medical teams should continue their work even after flood water has subsided.	DC/DDMA	Department of Health and Family Welfare
Arrange veterinary aids services and manage cattle in camps when necessary feeds.	DC/DDMA	Department of Veterinary and Animal Husbandry
Arrange for removal of debris and disposal of dead bodies.	DC/DDMA	Municipalities/ Department of Health and Family Welfare
Conduct comprehensive survey of the damage.	DC/DDMA	DDMA
Provide financial assistance for reconstruction of the damaged houses for flood victims	DC/DDMA	Department of Revenue and DM
Provide gratuitous relief to the next of kin of the deceased and provide assistance to the injured.		
Inspect, restore and repair infrastructural facilities.	DC/DDMA	PWD
New construction or reconstruction of natural drainage.		
Disinfect drinking water.	DC/DDMA	Department of PHE
Ensure proper supply of food, essentials, fuel etc. through PDS (Public Distribution System) / fair price shops.	DC/DDMA	Department of Food and civil supplies

5.3 Advice to Public

Before Flooding occurs

- Ensure that all the family members know the safe route to the nearest shelter.
- If the area is flood-prone, consider alternative building materials. Mud walls are more likely to be damaged during floods. So consider making houses which are more flood resistant. Advisory to be developed by PWD (B).
- Have an emergency kit at hand which should include:
 - A portable transistor, torch and spare batteries;
 - Stocks of fresh water, dry food (chira, muri, jaggery, biscuits, salt, sugar), kerosene, candle and matchboxes;
 - Waterproof or polythene bags for clothing and valuables, an umbrella and bamboo stick (to protect from snake);
 - A First Aid kit and strong ropes for tying things.

After Flood warning

- Tune to your local radio / TV for warnings and advice.
- Pay attention to flood warnings given by local authorities.

- Don't give any importance to rumours and don't panic.
- Keep dry food, drinking water and clothes ready.
- Prepare to take agricultural equipment and domestic animals to safer places or to higher locations.
- Plan which indoor items you will raise or empty if water threatens to enter your house.
- Check your emergency kit.

During Flood

- Drink boiled water.
- Keep your food covered, don't take heavy meals.
- Use raw tea, rice-water, tender coconut-water, etc. during diarrhoea; contact your health workers for ORS and treatment.
- Do not let children remain on empty stomach.
- Use bleaching powder and lime to disinfect the surrounding.
- Help the officials/volunteers distributing relief materials.

Post Flood

- Stay tuned to local radio for updated advice.
- Do not allow children to play in, or near, flood waters.
- Avoid entering floodwaters. If you enter, you must wear proper protection for your feet and check depth and current with a stick. Stay away from drains, culverts and water over knee-deep.
- Do not use electrical appliances, which have been in floodwater until checked for safety.
- Do not eat food, which has been in floodwaters.
- Boil tap water (in cities) until supplies have been declared safe. In case of rural areas, store tube well water in plastic jars or use halogen tablets before drinking.
- Be careful of snakes, as snakebites are common during floods.

Chapter 6: Landslides

Landslide is hydro–geographical hazard. The State is affected by landslide due to its hilly terrain and steep slopes and the vulnerability of landslide increases during the rainy seasons.

Likely impacts of landslides:

Primary Impacts

- 1 Multiple injuries and deaths;
- 2 Impact on hydroelectric and multi-purpose projects;
- 3 Extensive damage to roads and highways;
- 4 Major road closures;
- 5 Damage to habitations leading to relocation of population and establishments;
- 6 Loss of cultivable lands;
- 7 Adverse effect on environment; and
- 8 Creation of artificial lakes.

Secondary Impact

Landslide may result in blocking courses of relatively large natural drainages with or without the formation of artificial lakes. Such artificial lakes created due to landslides may result in flooding upstream and downstream.

Measures to be taken in Case of a major Landslide

Real Time Information on Landslide and Impact Assessment

- i) The GSI, the Nodal Agency, shall monitor landslides for identified sites and notify about the impending landslide to all the user agencies and departments of the state and district administration.

Geological Survey of India issues alerts and warnings to all designated authorities and agencies of the Central Government and State Governments/ district Administration for landslides in the following categories.

- i) **Category IV:** Landslides of small dimensions that occur away from habitations and do not affect either humans or their possessions.
- ii) **Category III:** Landslides which are fairly large and affect infrastructural installations like strategic and important highways and roads, rail routes and other civil installations like various appurtenant structures of hydroelectric and irrigation projects.

- iii) **Category II:** The landslides that may occur on the fringes of inhabited areas and result in limited loss of life and property.
 - iv) **Category I:** Landslides of large dimensions those are located over or in close vicinity of inhabited areas like urban settlements or fairly large rural settlements. Activity on these slides can result in loss of human lives, dwellings on large scale.
- ii) Earthquakes may trigger landslides and therefore, IMD shall communicate the occurrence of an earthquake magnitude and epicenter of the earthquake to GSI for initial assessment of earthquake induced landslide.
- iii) PWD, BRO, Forest Department shall notify the State/District EOC about the occurrence of the landslide along with preliminary information on location, magnitude, damage caused, etc. The State EOC shall notify the NEOC and GSI if the magnitude of the landslide is huge and the assistance of the central agencies is required.

Landslide is hydro–geographical hazard. The State is affected by landslide due to its hilly terrain and steep slopes and the vulnerability of landslide increases during the rainy seasons.

6.1 Strategic Plan

Tasks	Nodal Agencies
Construction of shelters as per BIS norms along landslide prone villages of the District.	Department of C&RD
Up gradation of primary school to serve as shelters having drinking water and toilets.	
Strengthening of embankments, buildings and other basic utility infrastructure in the vulnerable areas.	Department of PWD (B) and Department of Education
Arrangement of strong and reliable communication system in landslide areas.	MPRO
Setting up of control room to monitor the situation.	DDMA
Removal of any dwelling at edge or downstream of landslide prone areas.	
Public awareness programmes should be organized at block and village levels.	
Inform of occurrence of landslide through the public address system and put-up sign boards in the affected areas.	
Special vehicles like JCB excavators, MUV (multi utility vehicles) etc. should be kept ready for use of emergency for clearing the landslide affect the national and state highways and major district roads for easy movement of traffic.	Department of Transport
Medical units with trained personnel should also be kept ready for meeting any emergency.	Department of Health and Family Welfare
Alternative routes should be maintained.	PWD (R)

6.2 Emergency Plan

Such disasters are not known before its occurrence.

After the Landslide

Tasks	Nodal Agencies
Rescue the people who are stranded or otherwise affected.	Home Guard and Civil Defence/ SDRF
Ensure search and rescue operation for the victims and missing persons.	
Restore supply of power and road communication systems.	MeECL/ PWD
Ensure supply of food support to stranded people.	Department of Food and Civil Supplies
Ensure supply of water to stranded people.	Department of PHE
Ensure supply of medical support to stranded people.	Department of Health and Family Welfare
Ensure of traffic in affected area with help of Police Department.	Department of Transport
Ensure proper survey of damage and adequate assistance to be rendered to the victims.	DDMA

6.3 Advice to Public

When Landslide Threatens

- Identify the safe place.
- Be calm and inform the authorities for help.

Post-Landslide Measures

- Remain in shelters until you are advised to return.
- Keep away from soft land, marshy area and dangling wire from electric posts.
- Report anti-social activities, if noticed, to police.
- Drive vehicles carefully, don't overtake, follow traffic instructions as directed.
- Dispose of corpse and carcass.
- Report losses to authorities.

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