DISTRICT DISASTER MANAGEMENT PLAN
MAMIT DISTRICT
2022

Prepared by

DISTRICT DISASTER MANAGEMENT AUTHORITY
MAMIT DISTRICT

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FOREWORD

Disaster situations are ever on the increase due to growth in population, increase in urbanization, destruction of natural environment and climatic changes. Majority of the natural hazards plaguing humankind today are invariably a creation of our own actions. In the event of such a disaster occurring, mitigation measures must immediately be brought into motion in order to provide relief to the affected. However, the emphasis in Disaster Management has shifted from relief centric approach to proactive regime, and as such a well-coordinated response with clockwork precision becomes one of the most important goals. Towards this end, preparedness is the only answer for the worst contingency. As a part of preparedness, **Mamit District Disaster Management Plan (DDMP)** outlining the measures to be taken in the event of any natural or man-made disaster has been prepared based on the latest concepts / developments in the field of disaster management and past experiences in the District.

The DDMP for Mamit District mainly deals with Hazard, Risk & Vulnerability Assessment, Resource Inventory & Capacity Analysis, Preparedness & Mitigation, Response, Recovery and Standard Operating Procedures. Above all, the plan is prepared to aid the District Administration to focus quickly on the essentials before, during and after disaster.

The DDMP also seeks to serve as a useful reference handbook to all the District Level Officials who are in charge of Disaster Management in different Departments. It is insisted that they will carefully go through the DDMP and feel free to make any suggestion for its improvement.

I take this opportunity to thank all the Officers and staff, who have contributed in the preparation of this invaluable DDMP.

(LALNUNHLUA)
Deputy Commissioner &
Chairman, DDMA
Mamit District : Mizoram

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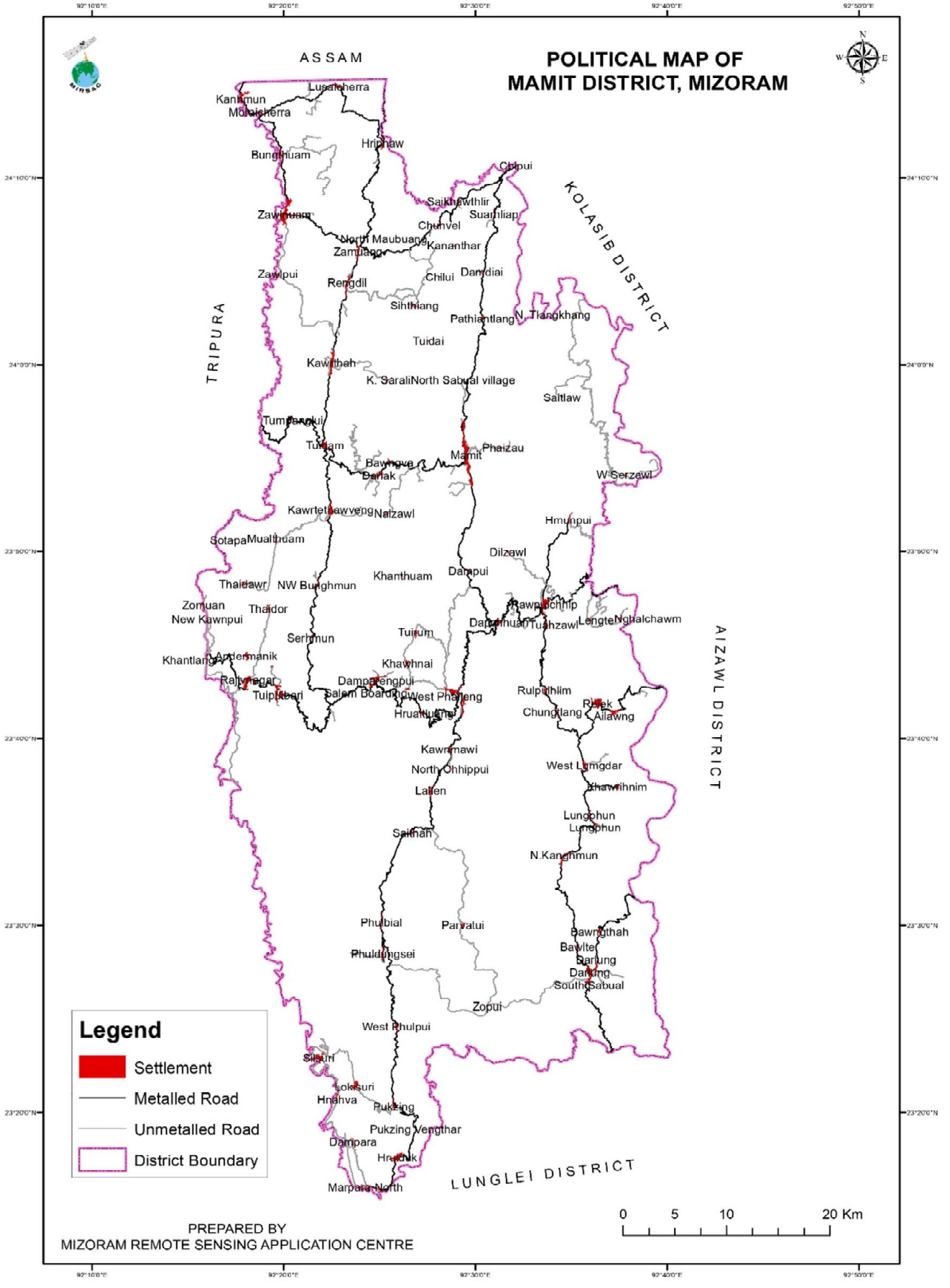
Note: Map is not to scale



CHAPTER 1

OBJECTIVES AND PRINCIPLES OF DISASTER MANAGEMENT PLAN

1.1 INTRODUCTION

According to the Disaster Management Act 2005, Disaster refers to a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.

Losses caused by disasters continue to mount year after year throughout the world. So, the need for an effective disaster management strategy to lessen the impact of disaster is increasingly being felt in many quarters and the need for strengthening organizational structure for disaster management is widely accepted

Precise actions, procedures and responsibilities have to be clearly laid down well in advance to ensure timely response in case of any disaster. Therefore, a mechanism that takes into account multiple hazards and basic preparedness has to be articulated in the form of Quick Response Teams, Quick Assessment Teams, Reporting Procedures, Checklist and Handbooks.

The mechanism also lays down crucial parameters, requirements and organizational composition of Emergency Operation Centers and Incident Command Systems. The disaster management plan is a document that includes every aspect of response and preparedness measures and acts as ready reckoner for the disaster managers at district level.

1.2 VISION

The aim of the plan will be a fool proof communication, authentic and accurate database, documented and rehearsed to be activated in the shortest possible time with minimum simple orders and procedures ensuring active participation by Government, Community and Volunteers at all levels, making optimal utilization of men, material and resources with no gaps or no overlaps to prevent loss of lives and minimize loss to property ensuring fastest restoration of the situation.

1.3 OBJECTIVES

The objective behind the preparation of the District Disaster Management Plan of Mamit District is to reduce the severe effects of various disasters and to protect all its residents and every kind of wealth for all sorts of untoward incidents through the following objectives:-

i) To mitigate impact of natural and man-made disasters through preparedness at District, Sub-Division, Block and Village level.
ii) To create awareness among the people about hazard occurrence and increase their participation in preparedness, prevention, development, relief rehabilitation and reconstruction process.
iii) Better co-ordination of relief and rehabilitation in the aftermath of disaster.
iv) To have response system in place to face any eventuality.

District Disaster Management Plan is an operational module for the District Administration, and measures for mitigating the different types of disaster effectively with the locally available resources and personnel and to provide the distressed people with immediate relief. It also ensures a checklist for all the stakeholders for an action oriented response structure and to study their preparedness level.

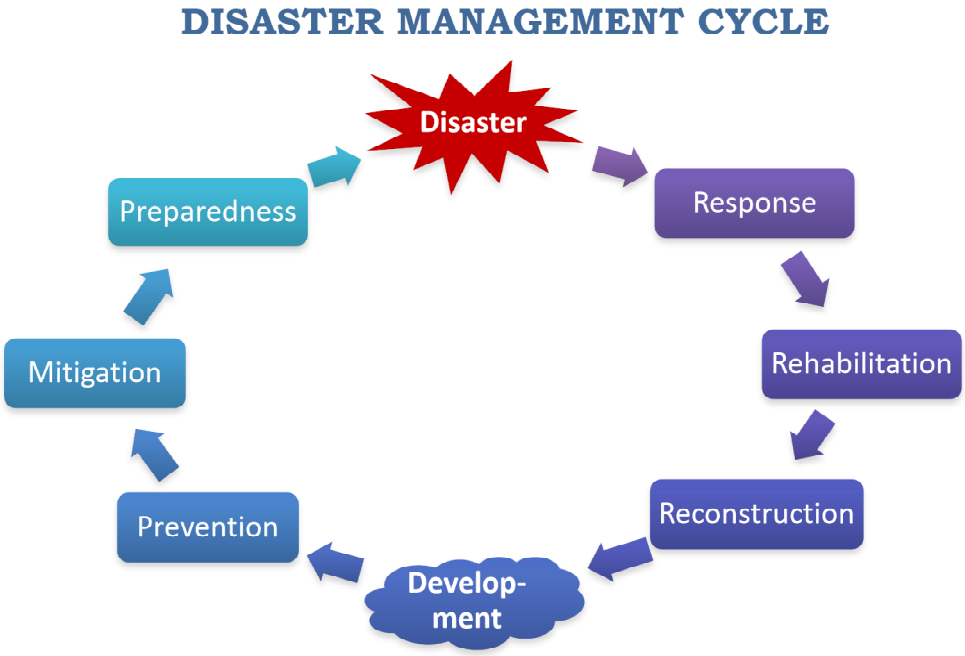
1.4 PERSPECTIVES AND STRATEGY

A formal plan for managing disaster includes:-

- Pre planning a proper sequence of response actions
- Allocation of responsibilities to the participant agencies
- Developing codes and standards operating procedures for various departments and relief agencies involved
- Inventory of existing facilities and resources
- Mechanism for effective management of resources
- Co-ordination of all relief activities including those of NGOs to ensure a co-ordinated and effective response
- Coordinating with the State response machinery for appropriate support
- Testing the plan through mock drills
- Defining levels of acceptable risk
- Monitoring and evaluation of actions taken during relief and rehabilitation.

1.5 DISASTER MANAGEMENT CYCLE

The Disaster management cycle illustrates the ongoing process by which governments, businesses and civil society, plan for and reduce the impact of disasters, react during and immediately following a disaster, and take steps to recover after a disaster has occurred. Appropriate actions at all points in the cycle lead to greater preparedness, better warnings, reduced vulnerability or the prevention of disasters during the next iteration of the cycle. The complete disaster management cycle includes the shaping of public policies and plans that either modify the causes of disasters or mitigate their effects on people, property, and infrastructure. The different phases of disaster management are represented in the disaster cycle diagram.



1. Mitigation and Prevention: Mitigation and Prevention are often used interchangeably as the term Mitigation can be comprised in the term Prevention and vice versa. *Mitigation means to reduce the severity of the human and material damage caused by the disaster. Prevention is to ensure that human action or natural phenomena do not result in disaster or emergency*. Both refers to the activities which actually eliminate or reduce the vulnerability or chance of occurrence or the effects of a disaster. The primary objective is to reduce the risk of being affected by a disaster. Even if the hazard cannot be removed, vulnerability can be decreased and in case of an impact, the capacity to withstand, to respond and to recover will be stronger.

2. Preparedness: It is planning on how to respond in case an emergency or disaster occurs and working to increase resources available to respond effectively. Disaster preparedness is a state of being ready to react promptly and effectively in the event of a disaster. Its measures depend upon the analysis of hazards and vulnerability.

3. Response: Response activities occur immediately following a disaster. It is a specific action taken immediately after a disaster. They are designed to provide emergency assistance to victims of the event and reduce the likelihood of a secondary damage. This immediate action is usually initiated by the community. Response measures include; early warning, evacuation, relief, psycho social care, search and rescue, damage assessment, restoration of infrastructure, etc. For most effective and efficient response a good Response Plan is required.

4. Rehabilitation: It is a decisions and actions taken after a disaster or calamity to support and resettle the affected community to normalcy. It may include the

provision of temporary housing and public utilities as interim measures to assist the longer-term recovery through permanent housing and infrastructure. Besides physical elements it may also include restoration via financial, psychological and livelihood support and bringing economic to stability.

5. Reconstruction: It is the efforts towards restoration of infrastructure or property after a disaster to their normalcy. It includes the replacement of buildings, infrastructure and lifeline facilities such as roads, bridges and communication links, so that long-term development prospects are enhanced rather than reproducing the same conditions which made an area or a population vulnerable in the first place. Reconstruction needs careful planning with a view to mitigate the pre-disaster hazards, vulnerabilities and risks, and further future developments.

6. Development: The inclusion of development as a phase in the disaster cycle is intended to ensure that following the natural disaster, societies include hazard and vulnerability considerations into their development policies and plans in the interest of overall progress. The rationale behind the use of the expression disaster management cycle‘ is that disaster and its management is a continuum of inter-linked activities. It is sometimes also referred to as the disaster-development cycle‘, implying that disasters are periodic phenomena and occur regularly in such a way that there is development, followed by a disaster, then back to development till the next disaster.

1.6 LIFE CYCLE OF DISTRICT DISASTER MANAGEMENT PLAN

As planning is a continuous process, any plan, to be effective, must be regularly checked, tested and revised. It should be updated as the condition changed. Responsibility in this regard lies with the District Disaster Management Committee. Any amendment to plans will be necessary where deficiencies in operational systems and procedures are revealed. This is a result of review meetings, exercises, change in hazards and environment.

WHO FORMULATES AND PREPARE THE PLAN

District Disaster Management Authority (DDMA) under the Chairmanship of the Deputy Commissioner is the apex body in the district to oversee and supervise the disaster management. The Authority makes a plan and monitors routine preparedness for different types of calamities for minimal effects of disaster, draw a response mechanism and co-ordinate linkages of all departments and agencies in tackling the problems of disaster.

PLAN REVIEW AND UPDATE

Through this document, basic aspects of select disasters are considered with a view to make adequate and appropriate preparedness and response measures. It is expected that this Plan will be revised and updated annually and become more and more comprehensive with the addition of more information and features. Any deficiency can be revised and strengthened to meet possible future emergencies.

1.7 CHARTER OF DUTIES OF VARIOUS OFFICERS/OFFICIALS

1.9.1 Deputy Commissioner

The Deputy Commissioner will co-ordinate all disaster management efforts of the District as the head of District Disaster Management Authority. The Deputy Commissioner will coordinate the District level response with the concerned departmental officers assisting him and a core group of officers. He may co-opt any other officer or specialist to assist him/her in carrying out various tasks.

He will coordinate all the field responses. Field responses include setting up relief camps, medical aid in the camps and transport facilities.

1.9.2 Chief Medical Officer

He will be responsible for arranging teams of Doctors, medicines, equipment's etc., required for the treatment of victims in coordination with the Civil Surgeon, arrangement of Ambulances etc.

1.9.3 Public Health Engineer

He will be responsible for ensuring proper water supply and sanitation facilities at the disaster site.

1.9.4 Food and Civil Supplies Officer

He will arrange food and supplies, essential commodities and other logistic support for the victims.

1.9.5 Electrical Engineer

He will be responsible for the electrical installations in the disaster area and will ensure regular power supply in the disaster area.

1.9.6 Transport Officer

He will be responsible for making arrangements of transportation facilities required for sending volunteers to the site of disaster, movement of men and materials.

1.9.7 Telecommunication System Professional

He will be responsible for restoration, manning and maintenance of the communication system like telephones, wireless system etc. and also responsible for maintenance of telephone line equipment's and will ensure that the communication system is operational in minimum possible time in case the link is broken.

***** Effective coordination between Deputy Commissioner and Departmental heads should be maintained continuously *****

CHAPTER 2

PROFILE OF MAMIT DISTRICT

2.1 MAMIT DISTRICT AT A GLANCE

(As per 2011 Census & Statistical Handbook, Mizoram, 2014)

1.	Area	:	3025 Sq.Km.
2.	Location		
	Longitude	:	92° 15' 44.54 E and 92° 40' 39.63 E
	Latitude	:	23° 15' 21.25 'N and 24° 15' 16.80 N
3.	No. of Sub-Division	:	3
4.	No. of RD Blocks	:	4
5.	No. of Villages	:	89
6.	No. of Town	:	3
7.	No. of Sub-Town	:	10
8.	Population (Total)	:	86364
	Male	:	44828
	Female	:	41536
9.	Density of population	:	29 people per Sq.Km.
10.	No. of BPL Families	:	8274
11.	No. of BPL Population	:	33096
12.	No. of Households	:	17,731
13.	% of Minority	:	42.10%
11.	% of workers under Agriculture	:	87.50%
12.	Average annual rainfall	:	212.2 mm
13.	Length of International border	:	50 Kms.
14.	Literacy rate	:	84.93%
15.	Sex Ratio	:	927

2.2 ABOUT MAMIT

Mamit District with its headquarters at Mamit was etched out from the erstwhile Aizawl District in 1998. The new District started functioning from the 24th April, 1998 which was the date when the first Deputy Commissioner assumed office. The District, for the purpose of social and economic development, needs to be assessed from the infrastructural facilities that are presently available as there remains a lot to be done for the development of the region.

2.3 AREA AND TOPOGRAPHY

Mamit District is situated in the western part of Mizoram. It is separated from Aizawl by the river Tlawng which flows in the south-north direction and empties itself to the Barak river of Cachar District of Assam. It is a land locked district and is bound by Bangladesh and Tripura on the West, Assam on the North, Kolasib and Aizawl District on the East and Lunglei District on the South. The total geographical area of the district is 3025.75 sq.km. It falls in the agro-climatic zone of Temperate Zone. The important rivers flowing in the district are Tlawng, Tut, Langkaih, Khawthlangtuipui, Teirei and Mar.

The entire District is covered by hilly terrain as well as some plain areas and is part of the western extension of the system that links up with the ranges of Nagaland and Manipur in the north and Chin Hills of Myanmar in the east and ramifies from the Sub-Himalayan Patkai-Arakan Ranges. The terrains are crisscrossed by valleys and deep gorges where the rivers wend their ways to constitute its river system. The three major rivers in the District are; Teirei, Tut and Tlawng, which runs parallel to each other almost up to Bairabi. The other two rivers joined up with Tlawng at Chilui and Tlangkhang respectively. The river Tlawng in turn joins the Barak river in Assam and this is navigable up to Sairang during certain season of the year.

As the region falls within the sub-tropical rain forest region, the vegetation of the district falls into four categories as under:-

(i) Tropical Moist Deciduous Forests
(ii) Tropical Semi-Evergreen Forests
(iii) Sub-Tropical Pine-Forests
(iv) Sub-Tropical Broad Leaved Hill Forests

With its fertile soil and plentiful rain, the vegetation are an admixture of species which ranges from bamboos and canes to fuel woods and timber species, with proper management could be exploited on commercial basis. Raising plantation commercially viable species such as Teak, Red Oil Palm and Areca nut (Betel nut) are of vital importance, other species such as Pine, Eucalyptus etc. are also adopted on a smaller scale.

2.4 CLIMATE

The District is under the influence of Sub-Tropical Monsoon and the climate is tempered to a great extent by the altitude of its terrain and therefore is pleasant

and not subjected to extremes. According to the classification of the Department of Environment, Forests & Climate Change, Govt. of Mizoram, the year is characterized by four distinct seasons:-

1) Summer	-	March to May
2) Rainy season	-	June to August
3) Autumn	-	September to October
4) Winter	-	November to February

The temperature varies between 10° to 34° Celsius in between winter and summer. January is the coldest month with the mean daily maximum temperature at 27.1°C and the mean minimum of 6.1°C. However, the lowest minimum temperature was recorded on 28th December, 2014 at 5.3°C and the highest temperature observed during the last four years was 35.6°C recorded on 6th May, 2014. The District receives abundant rainfall with an average of 2662 mms. It is heaviest during June, July & August. The winter is normally cold and dry.

2.5 MAJOR CROP

Soil is fertile and l8% of the net cropped area is having irrigation facility. Major crops production, which is paddy, in the district takes place during the Kharif season. In Rabbi Season Mustard, Cabbage, Radish, Carrot, Tomato, Potato and Pulses are grown. The district is famous for Oranges, Arecanuts and Hatkora fruits. The major allied activity in the district is Animal Husbandry (Piggery and Poultry)

2.6 ADMINISTRATIVE SETUP

The Deputy Commissioner heads the District Administration. He is responsible for law and order and for all developmental programmes. Mamit is the Headquarter of the District. There are three Civil Sub-Divisions viz. Mamit, West Phaileng and Kawrthah headed by Sub-Divisional Officers (Civil) and three Rural Development Blocks headed by Block Development Officers, viz. Reiek, West Phaileng and Zawlnuam. The Block-wise population of the District as per Census 2011 is as follows:-

Blocks	No. of Villages	Population
Reiek	23	17,867
West Phaileng	24	21,309
Zawlnuam	42	47,188
TOTAL	**89**	**86,364**

2.7 INFRASTRUCTURE

The infrastructures in Mamit District have significantly improved in this decade. Some of the major improvements are given below.

a) Roadways: Like any other districts, land transport is the main medium of transport. The District headquarters is connected to the State Capital Aizawl by a State Highway which runs 112 km long and is being upgraded to double lane National Highway, NH44A. This highway is the most prominent one in the district and connects Mizoram with Tripura via Mamit District and spans a total of 230 km out of which 165 km are within Mizoram. The villages within the district are connected by Major District Road, Village Roads and Other District Roads. Due to the difficult terrain, many villages are not yet linked by black-topped roads. However, construction of new roads and widening of existing ones are constantly underway.

b) Post & Telegraph: The postal services in the District have notably improved. However, the services cannot be perfected due to the adverse topographical and climatic condition. The list of Post Offices within the District are given in Annexure III. Other than postal services, there are 2 Telephone Exchanges in the district at Reiek and Mamit. Mobile phone services have also significantly been enhanced and several service providers such as BSNL, Vodafone, Airtel, etc., have been made available. However, there are still many improvements to be made in the network facilities and coverage.

c) Power & Electricity: As on date, Mizoram is not yet self-sufficient in power generation and has to import from neighboring States. The lack of electricity is the bane of industrial and economic development in the State. Mamit District is no different from other parts of the State in power supply. Of the entire population, the number of household electrified is shown below block-wise:-

Blocks	No. of Household	No. of Household electrified
Reiek	8,178	7,186
West Phaileng	4,464	3,074
Zawlnuam	9,523	7,454
TOTAL	**22,165**	**17,714**

(Source: Census 2011)

Thus, the percentage of electrification of households stand at 71.8%.

d) Water supply: The District have been lack behind in acquiring sufficient clean and potable water, especially in winter. A huge improvement can be made in this area and thus the concerned department give its best efforts in this regard. Other than the water supplied by the PHED, locally available private water suppliers are one of the main source of water. As water plays vital importance in disaster management, acquiring sufficient water would enhance not only the people's wellbeing, but also the Disaster Management Authority in many ways.

2.8 BANKING FACILITIES

The district is currently served by three Banks. The branch network during 2018-19 are shown below.

Name of Bank	No. of Branches
SBI	3
MRB	6
MCAB	1
Total	**10**

These 10 (ten) branches cater to a population of approximately 86364, which means, on an average one branch for every 9596 persons.

2.9 INDUSTRIAL SCENARIO

The district has no industries to boast of due to lack of Infrastructure. Agriculture as mentioned before is the mainstay of the entire population of the district with a few exceptions i.e. some persons in Govt. and semi-Govt. services. However, after completion of the proposed extension of National Highway NH44A up to Tripura, trade activities are hoped to pick up along the route.

2.10 SCHOOLS AND COLLEGES

The literacy rate in Mizoram is quite high as compared to other States. This is due to the fact that education has been emphasized and is within the reach of every household. Education plays an important role in the upliftment of any society. The statistical break-up of educational facilities in the District as per the information obtained from DEO, Mamit District, dated 7th November, 2019, are as follows:-

Block	College		Higher Sec. School		High School		Middle School		Primary School	
	No.	Lect.	No.	Lect.	No.	Tea.	No.	Tea.	No.	Tea.
Reiek	-	-	-	-	9	50	20	136	17	45
W.Phaileng	-	-	1	3	15	81	43	254	64	198
Zawlnuam	2	42	3	34	33	171	80	484	97	273
TOTAL	**2**	**42**	**4**	**37**	**57**	**302**	**143**	**874**	**178**	**516**

(Lect. – Lecturer, Tea. – Teacher)

2.11 MEDICAL SERVICES

The District currently have one Govt. Hospital i.e. District Hospital located at Mamit, which serves the entire district primarily in providing medical treatments and attentions. The District Medical Superintendent is the head of the hospital and there are several other Medical Officers, Specialists and Nurses. Important medical personnel available in the District Hospital is given in Annexure IV.

Other than the District Hospital, there are several Community Health Centers (CHC), Primary Health Centers (PHC) and Health Sub Centers, situated at various villages which are monitored by the CMO, Mamit District. The block-wise distributions of these Centers as per the information dated 20th November, 2019, received from CMO are given below.

Blocks	No. of CHC	No. of PHC	No. of Sub-Centers
Reiek	-	3	8
West Phaileng	-	3	9
Zawlnuam	1	2	22
TOTAL	**1**	**8**	**39**

2.12 AGRICULTURAL RESOURCES AND POTENTIAL

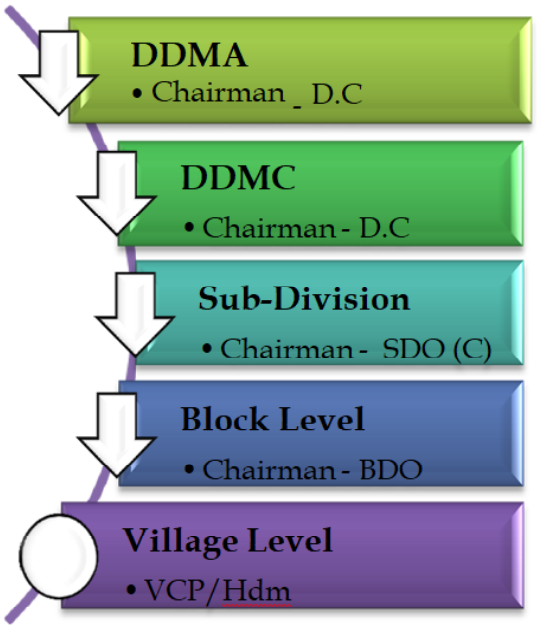
The economy of the District is basically Agro-based and rice is the main agricultural product of the District in which 2969ha of rice field yielded 3928.72MT during the year 2018-19. Major crop production of the District for the year 2018-19, as per the information dated 7th November, 2019, received from the DAO, Mamit District, are given below.

Sl. No.	Name of Crop		Type of cultivation	Area (ha)	Production (MT)
1.	**Rice**	(a) Jhum	Kharif	1994	1860.18
		(b) WRC	Kharif	975	2078.54
	Total of Rice			2969	3928.72
2.	**Maize**		Kharif	902	1079.44
			Rabi	58	69.01
	Total of Maize			960	1148.00
3.	**Cow Pea**		Kharif	237	228.66
			Rabi	44	39.14
	Total of Cow Pea			281	258.00
4.	**French Bean**		Kharif	15	12.36
			Rabi	47	41.20
	Total of French Bean			62	53.56
5.	**Rice Bean**		Kharif	44	69.01
6.	**Field Pea**		Rabi	46	53.56
7.	**Rajmash**		Rabi	66	57.68
8.	**Sesamum**		Kharif	129	69.01
9.	**Soyabean**		Kharif	34	43.26
10.	**Rapeseed & Mustard**		Rabi	14	7.21
11.	**Potato**		Rabi	14	72.1
12.	**Sugarcane (In cane)**		Kharif	85	437.75

CHAPTER 3

INSTITUTIONAL MECHANISM

3.1 STRUCTURE OF DISASTER MANAGEMENT MECHANISM AT THE DISTRICT LEVEL



3.2 FORMATION AND COMPOSITION OF THE DISTRICT DISASTER MANAGEMENT AUTHORITY (DDMA)

Subject to the provisions under Section 25 of the Disaster Management Act, 2005, the National Authority advised the State Authority to notify each District to form District Disaster Management Authority with a composition as per the DM Act, 2005. Hence, w.r.t the State Govt. notification No.B.13011/102/2015-DMR, following are the composition of the District Disaster Management Authority at Mamit District:-

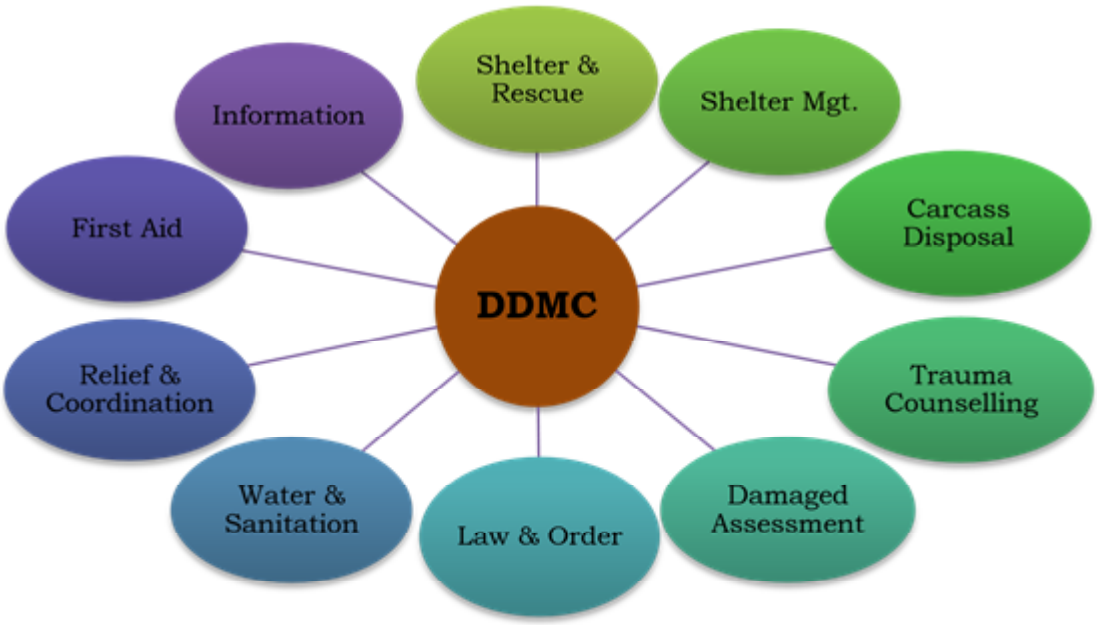
a. Chairperson : Deputy Commissioner (Ex-officio)
b. Co-Chairperson : Project Director, DRDO
c. Members : 1) Superintendent of Police (Ex-officio)
2) Chief Medical Officer (Ex-officio)
3) Executive Engineer, PWD, Mamit Div.
4) Executive Engineer, PHE, Mamit Div.
d. Chief Executive : Officer Addl. Deputy Commissioner.

3.3 DISTRICT DISASTER MANAGEMENT COMMITTEE (DDMC) AND ITS COMPOSITION

In the event of a disaster occurring in Mamit, the responsibility for its management lies with the District Disaster Management Committee under the guidance of DDMA. Composition should include all Departments as well as Non-Governmental Organizations, constituted as under:-

Sl. No.	Functionaries	Designation
1.	Deputy Commissioner	Chairman
2.	Additional Deputy Commissioner	CEO
3.	Sub-Divisional Officer (Sadar),	Nodal Officer
4.	Superintendent of Police, Mamit	Member
5.	SDC, i/c DM&R, (Branch Officer)	Member
6.	SDO (Civil) Kawrthah & W.Phaileng	Member
7.	E.E, P&E,PWD & PHE	Member
8.	All other Heads of Offices	Member
9.	Principal/Headmasters, HSS & Govt. High Schools	Member
10.	President, MJA, Mamit Sub-Hqrs	Member
11.	Presidents, Sub-Hqrs. YMA, MHIP and MUP, or their representatives	Member
12.	Prominent citizens, as may be co-opted by the Chairman from time to time	Member
13.	President Jt. Village Council Mamit and all Presidents, Village Council within Mamit Town	Member
14.	All Presidents, Branch YMA within Mamit Town	Member
15.	Commandant, 4th IR Bn.	Member
16.	BDO, Reiek, Zawlnuam & W.Phaileng	Member
17.	Sub Divisional Engineer (BSNL) or representative	Member
18.	DIO (NIC), Mamit	Member

3.4 DISTRICT DISASTER MANAGEMENT TEAMS



Designated Meetings Venue: In the event of a major disaster with catastrophic consequences affecting Mamit District when there is total disruption of communication system, all members of the Disaster Management Committee will have to assemble immediately within 1(one) hour after the occurrence of such disaster, in a pre-destined venue without waiting for any formal correspondence/ circular from the Chairman or other Officers authorized in that behalf.

The designated venue for holding an Emergency Meetings on Disaster Management shall be the Office of the Deputy Commissioner. If holding of such meeting in the designated venue is not possible due to damage caused to the area or building, or blockade caused by debris, alternative venues, in order of priority will be:-

1) Office of S.P, Mamit
2) D.C's Rest House
3) Chhimveng YMA Hall

If the Chairman is unable to preside over the meeting or fails to attend such meetings for any reason, the Additional D.C. or Superintendent of Police will take the Chair. If the Addl. D.C. or S.P. are also absent, one of the senior members of the committee nominated by other members will preside over the meeting. There will be no quorum.

3.5 DISTRICT STANDING COMMITTEE ON DISASTER MANAGEMENT

For the purpose of facilitating quick decisions, timely operational directions and effective co-ordination of issue of warnings, proper execution of rescue, relief and recovery operations, there should be a secondary committee under District Disaster Management Committee to be known as District Standing Committee on Disaster Management (DSCDM).

a) Responsibilities of the DSCDM: The responsibilities of this Committee would, inter alia, include:-

(i) On the spot decision making
(ii) Control and co-ordination of response and recovery activities in the district
(iii) Resource mobilization and replenishment
(iv) Monitoring of overall response and recovery activities
(v) Preparation of reports for submission to the State Government.

***b) Composition of the DSCDM*:-**

Convener : D.C., Mamit District
Members :
1) SDO (Sadar)
2) S.P Mamit
3) CMO
4) E.E., PWD
5) E.E, P&E
6) DLAO, LAD
7) Presidents, Sub-Hqrs
8) YMA, MUP, MHIP
9) DIPRO, Mamit
10) President Jt. V/C, Mamit.

3.6 SUB-DIVISIONAL DISASTER MANAGEMENT COMMITTEE (SDDMC)

There is a Management Committee at the Sub-Division Level in the District. This Committee will co-ordinate programmes undertaken by Village Level Committee. The Committee consists of the following members:-

Chairman : SDO(C)
Member Secretary : SDEO/CEO/Headmaster Local High School
Members :
1) SDPO
2) Medical Officer
3) EE/SDO, PWD/PHE/P&E
4) CEO (Edn.)
5) Representative of YMA, MHIP, MUP
6) Representative of Local Churches
7) President, V/C
8) Any other member co-opted by the Chairman.

One third of the members will form the quorum and the functions of this Committee shall be:-

1. To plan, organize and render relief in accordance with provisions of the District Disaster Management Plan and NDMA norms
2. To directly monitor the progress of relief operation at Sub-Division Level in rendering relief before, during and after the Disaster
3. To co-ordinate the efforts of the Govt. Departments and NGOs
4. To suggest measures for further improvement of relief operations
5. To supervise various efforts or relief services at the village level.

3.7 BLOCK LEVEL DISASTER MANAGEMENT COMMITTEE (BLDMC)

There is a Management Committee at the Block Level in all the three Blocks. This Committee will assist in the implementation and coordination of programmes undertaken by Village Level Committee. The Committee consists of the following members:-

Chairman : BDO
Member Secretary : SDEO/CEO/Headmaster Local High School
Members :
1) SDPO
2) Medical Officer
3) EE/SDO, PWD/PHE/P&E
4) CEO (Edn.)
5) Representative of YMA, MHIP, MUP
6) Representative of Local Churches
7) President, V/C
8) Any other member co-opted by the Chairman.

One third of the members will form the quorum and those functions of this Committee shall be:-

1. To plan, organize and render relief in accordance with provisions of the District Disaster Management Plan and NDMA norms
2. To directly monitor the progress of relief operation at Block headquarters in rendering relief before, during and after the Disaster
3. To co-ordinate the efforts of the Govt. Departments and NGOs
4. To suggest measures for further improvement of relief operations
5. To supervise various efforts or relief services at the village level.

3.8 VILLAGE LEVEL DISASTER MANAGEMENT COMMITTEE (VLDMC)

The Village Level Committee on Disaster Management shall consist of the following:-

Chairman : President, V/C/Senior-most Govt. Officer posted in the area
Vice Chairman : Vice President, V/C
Member Secy. : President, Group/Branch YMA or Headmaster, M.E, School
Members :
1) Post Commander, Security Post or his representative O.C., Police Station/ Out Post (if any)
2) VFA if posted in the area
3) Health Assistant/Pharmacist/Nurse/Midwife, if posted in the area.
4) Gram Sevak, if any
5) Section Officer/Section Assistant, PWD, if any
6) Secretary, Branch YMA
7) Head Teacher, Primary School, Middle School, High School
8) Representative of Local Churches
9) Any other member co-opted by the chairman.

One third of the members will form the quorum and the functions of the Co-ordination Committee shall be:-

1) To plan, organize and render relief in accordance with the provisions of the scheme
2) To co-ordinate efforts of Government Departments, Non-Government
3) Organizations in connection with relief operations
4) To suggest measures for improvement of relief operations
5) To advise on any measures necessary for relief operations.

3.9 EMERGENCY SUPPORT FUNCTIONS (ESF)

This is an additional feature in the new mechanism of disaster management. A concerted effort of various agencies is required to manage a disaster. Usually the agencies are able to perform the required function, but lack of proper coordination leaves them under-utilized. To avoid this type of problem, a new mechanism called Emergency Support Functions (ESFs) are formulated.

EFS	FUNCTION	NODAL AGENCY	SUPPORTING AGENCIES
EFS-1	Communication	BSNL	NIC/MPRO/E-District
EFS-2	Evacuation	D.C	POLICE(DEF)/HOME GUARD/4th IR Bn./NCC
EFS-3	Search and Rescue	Police, Fire Service	Police (DEF), NCC, NYK,SDRF (4th IR Bn.) Department of Health
EFS-4	Law & Order	POLICE (DEF)	Home Guard, 4th IR Bn.
EFS-5	Medical response & Trauma Counseling	DMS	CMO, NSS
EFS-6	Water Supply	PHE	NGOs
EFS-7	Relief	DCSO	NGOs
EFS-8	Debris and road Clearance	PWD	LAD, UD&PA
EFS-9	Help lines, Warning dissemination	D.C.	IPRO/MPRO/NIC/NGO Reps/E-District
EFS-10	Electricity	P & E	NGOs
EFS-11	Transport	DTO	PWD

3.10 DISTRICT CONTROL ROOM/EMERGENCY OPERATION CENTER

Mamit District has an exclusive District Control Room/Emergency Operation Center (EOC) at the Office of the Deputy Commissioner, Mamit District. This center is intended for coordinating all disaster related activities in the District.

The District EOC will be the nerve center for the Disaster Management in the entire District. Its main purpose is to monitor, coordinate and implement the various action plans for disaster management. The EOC control room will receive necessary information on a routine basis from the different departments in the districts on the vulnerability of various places in the district. A complete report on the preparedness of the district level departments and the resources available at their disposal should be with the authorities at the control room. If required, it shall also arrange and supply requirements. The District Control Room shall also see to it that the disaster management plan is updated according to the changing scenario. It has to maintain an inventory of all resources and should be able to provide information to all the needy. It will also provide information at the district and local level and disaster prone areas through appropriate media. In order to do this, it will have to brief the media of the situations and give day to day reports during the disasters. It will also maintain a record of the actual scenario and the action taken.

The Control Room will require participation of key Officers from the line Departments and the District Administration to directly involved in the Disaster Management. The facilities and amenities available with the District Administration will be at the disposal of the officials on duty. The Control Room will perform the following main functions:-

1) Collection and compilation of information from the affected areas
2) Documenting information flow
3) Decision making regarding resources management 4) Allocation of tasks to different resource organizations 5) Supply of information to State Government.

It is practically impossible for the Deputy Commissioner and his team to man the EOC round the clock. Therefore, a specialized team of Desk Officers from the following key source Departments should be formed:-

1) Police Department
2) Medical and Hospital Administration/Health and Family Welfare Dept.
3) PWD/PHE/P&E Depts. 4) LAD.

The Deputy Commissioner will spell out priorities and policy guidelines and will co-ordinate the services of various Departments and Agencies. The Desk Officer will maintain constant contact with the District Disaster Management Committee and other head of offices to ensure quick decisions making. They will be responsible for allocating tasks to concerned staff, resources management and information flow. Responsibility of each desk will be pre-assigned.

3.10.1 Role of Emergency Operation Center in Normal Time

The Deputy Commissioner of Mamit District is empowered to appoint an Administrative Officer as Officer-in-charge of EOC. He will be responsible for the effective functioning of the EOC. Responsibilities of the EOC in charge in normal time include:-

1) Ensure that all equipment's in the EOC are in working condition
2) Collection of data on routine basis from line departments for disaster management

3) Develop status reports of preparedness and mitigation activities in the district
4) Ensure appropriate implementation of DDMP
5) Maintenance of data bank with regular updating of data
6) Activate the trigger mechanism on receipt of disaster warning/occurrence of disaster.

3.10.2 Role of Emergency Operation Center during Disaster

On the basis of the message received from the forecasting agencies, warning has to be issued for the general public and the Departments playing vital role during emergencies. Issuing correct and timely warning is one of the prime responsibilities of EOC. Thus, EOC should have a well-planned line of communication. The Deputy Commissioner shall be the competent authority to disseminate a disaster warning. The disaster warning shall also be communicated to:–

1) Members of DDMA
2) All Emergency Support Functions (ESF)
3) Members of DDMC, Mamit
4) Hospitals in the disaster area
5) State Relief Commissioner
6) Emergency Operation Center in the neighboring districts 7) National/ State Emergency Operation Center 8) People's representatives from the district.

3.11 SITE OPERATION CENTER (SOC)

This will be directly linked with the EOC. It is the local community who would set up such operation center at the local level in order to co-ordinate various activities of evacuation, rescue and relief operations. Volunteers from locality supplemented by reinforcements from the neighbourhood will conduct large scale relief operations without waiting for Government Agencies to reach the site.

If SOC has not been set up on the first visit of the site during disaster, the officer deputed from the District Administration viz. SDO, BDO or other Officers available near the site will see to it that the SOC is set up without delay. In order to make SOC more effective and cohesive, the local leadership should be associated in such a way that maximum participation in terms of manpower and authority is ensured. Deputy Commissioner will be responsible for assisting, monitoring and evaluation of the center. He shall ensure that rescue and relief operations are carried out smoothly.

3.12 INCIDENT RESPONSE SYSTEM (IRS)

The Incident Response System (IRS) functions through Incident Response Teams (IRTs) in the field. In line with the administrative structure and DM Act 2005, Responsible Officers (ROs) have been designated at the District level as overall in charge of the incident response management while the Incident Commander (IC) will manage the incident through IRS. The members of the Incident Response Team (IRT) of Mamit District are as follows:-

IRS POSITION	APPOINTED OFFICER		CONTACT NO.
Responsible Officer (RO)	Lalnunhlua, Deputy Commissioner		7005368548
Incident Commander (IC)	Lalfakzuala Addl. D.C.		9862680482
Deputy Incident Commander (DIC)	Lalthangpuii Pulamte Superintendent of Police		9612170718
Information & Media Officer (IMO)	Paul Rokima, MIS, DIPRO		9862527976
Liaison Officer (LO)	Vanlalhmachhuana, SDO (S)		9862237347
Safety Officer (SO)	Henry Malsawmtluanga SDC i/c DM&R		9862868510
Operations Section Chief (OSC)	HD Lalpekmawia, PD, DRDO		9874189546
Staging Area Manager (SAM)	H. Lalramliana, SDO (C)/BDO, W.Phaileng		9366672709
	Ngulzathuama, SDO (C), Kawrthah / BDO Kawrtethawveng		9436380878
	Christina Lalmuanzuali, BDO, Reiek		7085416805
	Henry Malsawmtluanga SDC i/c DM&R		9862868510
Response Branch Director (RBD)	Zoramthara, Addl. SP		9862769884
Division Supervisor/Group i/c	Vanlalhruaia, SDPO		9436756670
Task Force/Strike Team	SDRF	KL Vulmawia, Commandant 4th IR Battalion,Mamit	8415920748
	F&ES, MRP etc.	Vanlalhruaia, SDPO	9436756670
	V/C & YMA	H. Rodingluaia Cairman, Jt. V/C Vanlalchhuanga, President, Sub-Hqrs. YMA	

Single Resource Leader (SRL)	Zothankhuma Chhakchhuak, CMO	9436141312
	Richard Vanlalrema, SDO, PWD	9483020371
	Vanlaltluanga, SDO, P&E	9436152873
Transportation Branch Director (TBD)	Benjamin Lalhmingsanga, DTO, Mamit	9612122284
ROAD GROUP		
Group in-charge	Vanlalhruaia, SDPO	9436756670
Vehicle Coordinator	Benjamin Lalhmingsanga DTO, Mamit	9612122284
Loading/Unloading in-charge	Benjamin Lalhmingsanga, DTO, Mamit	9612122284
WATER GROUP		
Group in-charge	Helen Saibuangi, E.E, PHED	9862369503/ 9436153986
Coordinator	V. Laldanmawia, SDO, PHED	9612120949
Loading/Unloading in-charge	V. Laldanmawia, SDO, PHED	9612120949
AIR OPERATION GROUP		
Group in-charge	Lalneihkima, DCSO FCS&CA Dept.	9862324163
Helipad in-charge	Zodingliana Chenkual, EE, PWD	9612164609
Loading/Unloading in-charge	Mandy M Lianchhingpuii Asst. Commissioner of Excise	8732080298
PLANNING SECTION CHIEF (PSC)	Lalnunhlua, Deputy Commissioner	7005368548
Resource Unit Leader (RUL)	Lalfakzuala Addl. D.C.	9862680482
Check in-status Recorder	Lalhmingmawia Hrahsel, DRO	9774831170
Situation Unit Leader	Lalthangpuii Pulamte Superintendent of Police	9612170718
(SUL)	Lalthangpuii Pulamte Superintendent of Police	9612170718
Display Processor (DP)	Paul Rokima, MIS, DIPRO	9862527976

Field Observer (FO)	Vanlalchhuanga, President, Sub-Hqrs, YMA	8731060084
Weather Observer (WO)	Zokhuma Varte, DAO	9436156219
Documentation Unit Leader (DUL)	Laldingliana, DEO	8798759077
Demobilization Unit Leader (Demob.UL)	Zoramthara, Addl. SP	9862769884
Technical Specialist (TS)	Vanlaltluanga, SDO, P&E V. Laldanmawia, SDO, PHED	9366788407 9612120949
LOGISTIC SECTION CHIEF (LSC)	Lalthangpuii Pulamte Superintendent of Police	9612170718
Service Branch Director (SBD)	K.Tlangruala, DLAO	9436199949
Communication Unit Leader (Com.UL)	Soni Kumar, JTO, BSNL	8114504407
Medical Unit Leader (MUL)	Dr. Lalzuatliana, DMS	9436374357
Food Unit Leader (FUL)	Lalneihkima, DCSO FCS&CA Dept.	9862324163
Supporting Branch Director (Sup.BD)	Richard Vanlalrema, SDO, PWD	9483020371
Resource Provisioning Unit Leader (RPUL)	Lalneihkima, DCSO FCS&CA Dept.	9862324163
Facilities Unit Leader (Fac.UL)	Mandy M Lianchhingpuii Asst. Commissioner of Excise	8732080298
Ground Supporting Unit Leader (GSUL)	Zodingliana Chenkual, EE, PWD	9615593541
Finance Branch Director (FBD)	Zothanzama Sailo, MFAS, Treasury Officer	8974832383
Time Unit Leader (TUL)	Laldingliana, DEO	8798759077
Compensation/Claim Unit Leader (Com./CUL)	Lalsanglura, SO	7085979191
Procurement Unit Leader (PUL)	Henry Malsawmtluanga SDC i/c DM&R	9862868510
Cost Unit Leader (CUL)	Vanlalhmachhuana, SDO (S)	9862237347

3.12.1 Direct, Control and Coordination

Incident Response System (IRS) incorporates all the tasks that may be performed during Disaster Management irrespective of their level of complexity. It envisages a composite team with various sections to attend to all the possible response requirements. It provides a standard approach to the management of the disaster site of any small or large scale disaster event. IRS is one of the model tools for command, control and coordination of a response mechanism, which provides a means to coordinate the efforts of individual agencies as they work towards the common goal of stabilizing the incident and protecting the life, property and the environment.

3.12.2 Roles and responsibilities of Responsible Officer (RO)

The Deputy Commissioner is the Chairperson of the District Disaster Management Authority (DDMA) and function as an RO in times of disasters. He will:-

- Ensure that Incident Response Teams (IRTs) are formed at District, Sub-Division and Block levels and IRS is integrated in the District DM Plan. This may be achieved by issuing a standard order to all SDOs and BDOs within the district.
- Ensure web-based/on-line Decision Support System (DSS) is in place in Emergency Operation Center (EOC) and connected with District, Sub-Division and Block level IRTs for support.
- Ensure that toll free emergency numbers existing for Police, Fire and Medical support, etc. are link to the District EOC for response, command and control.
- Obtain funds from State Government as recommended by the 13th Finance Commission and ensure that a training calendar for District IRTs is prepared and members of IRTs are trained through training institutions of the State Government/District like Administrative Training Institute (ATI), etc.
- Delegate authorities to the Incident Commander (IC).
- Activate IRTs at District headquarters, Sub-Division and Block levels when disaster strikes.
- Appoint/deploy, terminate and demobilize IC and IRTs as and when required.
- Decide overall incident objectives, priorities and ensure that various objectives do not conflict with each other.
- Ensure that Incident Action Plan (IAP) is prepared by the IC and implemented.
- Co-ordinate all response activities.
- Give directions for the release and use of resources available with any Governmental Departments, Local authority, Private sectors, etc. in the district.
- Ensure that Armed Forces Commanders are involved in the planning process and their resources are appropriately dovetailed, if required.
- Appoint a Group-in-charge of Air operation at the District level to organize Air operation support in co-ordination with the State and Central Government Nodal Officers (Air Operations).
- Ensure that the NGOs carry out their activities in an equitable and non-discriminatory manner.
- Deploy the District headquarters IRTs at the incident site, if necessary.

- Ensure that effective communications are in place.
- Ensure that telephone directory of all emergency support facilities, EOC and members of IRTs are prepared and available.
- Ensure provision for accountability of personnel and safe operating environment.
- In case the situation deteriorates, the District Responsible Officer may assume the role of the IC and may seek support from the State level Responsible Officer.
- Conduct post response review on performance of IRTs and take appropriate steps to improve performance.
- Take other necessary actions within the District as the situation demands.

3.12.3 Roles and responsibilities of Incident Commander (IC)

The Incident Commander (IC) is the overall in-charge for the management of onsite response to any incident. For his assistance and management of the incident, there are two sets of staff; a) Command Staff and b) General Staff. The Command Staff comprises IC, Information & Media Officer (IMO), Safety Officer (SO) and the Liaison Officer (LO). The General Staff comprises IC, Deputy IC, Operation Section Chief (OSF), Planning Section Chief (PSC) and Logistic Section Chief (LSC).
The Addl. DC is the IC and shall have the following responsibilities:-

i) Obtain information on:-
   a) Situation status like number of people and the area affected etc.
   b) Availability and procurement of resources.
   c) Requirement of facilities like ICP, Staging Area, Incident Base, Camp, Relief Camp, etc.
   d) Availability and requirements of Communication system.
   e) Weather forecast from IMD, Science & Technology Dept., and Agriculture Dept.
   f) Any other information required for response from all available sources.

ii) Determine incident objectives and strategies based on the available information and resources.

iii) Establish immediate priorities, including search & rescue and relief distribution strategies.

iv) Assess requirements for maintenance of law and order, traffic, etc., and make arrangement with the help of Police Dept. the incident site.

v) Brief higher authorities about the situation and request for additional resources, if required.

vi) Establish appropriate IRS organization with Sections, Branches, Divisions and/or Units based on the span of control and scale of the incident.

vii) Establish Incident Command Post (ICP) at a suitable place. There will be one ICP even if the incident is multijurisdictional. If appropriate or enough space is not available, other Sections can function from a different convenient location. But there should be proper and fail safe contact with the ICP in order to provide quick assistance.

viii) Ensure that the Incident Action Plan (IAP) is prepared.

ix) Ensure that team members are briefed on performance of various activities as per IAP.

x) Approve and authorize the implementation of an IAP and ensure that IAP is regularly developed and updated as per debriefing of IRT members. It will be reviewed every 24 hours and circulated to all concerned.
xi) Ensure that planning meetings are held at regular intervals. The meetings will draw out an implementation strategy and IAP for effective incident response. The decision to hold this meeting is solely the responsibility of the IC. Apart from other members, ensure that PSC attend all briefing and debriefing meetings.
xii) Ensure that all Sections or Units are working as per IAP.
xiii) Ensure that adequate safety measures for responders and affected communities are in place.
xiv) Ensure proper coordination between all Sections of the IRT, agencies working in response activities and ensure all conflicts are resolved. xv) Ensure computerized & web based IT solutions are used for planning, resource mobilization & deployment of trained IRT members.
xvi) Consider requirement of resources, equipment which are not available in the functional jurisdiction, discuss with PSC and LSC and inform Responsible Officer regarding their procurement.
xvii) Approve and ensure that the required additional resources are procured and issued to the concerned Sections, Branches and Units etc. and are properly utilized. On completion of assigned work, the resources will be returned immediately for utilization elsewhere or to the department concerned.
xviii) If required, establish contact with CBOs, NGOs etc. and seek their cooperation in achieving the objectives of IAP and enlist their support to act as local guides in assisting the external rescue and relief teams.
xix) Approve the deployment of volunteers and such other personnel and ensure that they follow the operations as planned.
xx) Authorize release of information to the media.
xxi) Ensure that the record of resources mobilized from outside is maintained so that prompt payment can be made for hired resources.
xxii) Ensure that Incident Status Summary (ISS) is completed and forwarded to the Responsible Officer.
xxiii) Recommend demobilization of the IRT, when appropriate.
xxiv) Review public complaints and recommend suitable grievance redressal measures to the Responsible Officer.
xxv) Ensure that the NGOs and other social organizations deployed in the affected sites are working properly and in an equitable manner.
xxvi) xxvi) Ensure preparation of After Action Report (AAR) prior to the demobilization of the IRT on completion of the incident response. xxvii) Perform any other tasks required for the incident management.
xxviii) Ensure that the record of various activities performed by members of Branches, Divisions, Units/Groups are collected and maintained in the Unit Log (prescribed format).
xxix) Perform such other duties as assigned by Responsible Officer.

3.12.4 Roles and responsibilities of Information & Media Officer (IMO)

The Information & Media Officer (IMO) is the focal point of all matters related

with public media communication about disasters happening within their area of operation. The IMO shall have the following duties and responsibilities:-

i) Prepare and release information about the incident to the media agencies and others with the approval of IC.
ii) Note down decisions taken and directions issued in case of sudden disasters when the IRT has not been fully activated and hand it over to the Planning Section on its activation for incorporation in the IAP.
iii) Ask for additional personnel support depending on the scale of incident and workload.
iv) Monitor and review various media reports regarding the incident that may be useful for incident planning.
v) Organize IAP meetings as directed by the IC or when required.
vi) Co-ordinate with IMD, Weather Observers of State Science & Technology Dept., and Agriculture Department to collect weather information and disseminate it to all concerned.
vii) Maintain records of various activities performed during pre and post disaster incidents.
viii) Perform such other duties as assigned by IC.

3.12.5 Roles and responsibilities of Liaison Officer (LO)

The Liaison Officer (LO) is the focal point of contact for various line departments, representatives of NGOs, CBOs etc. participating in the response. The LO is also the point of contact to assist the first responders and other cooperating agencies. The LO shall have the following responsibilities:-

i) Maintain a list of concerned line departments, agencies (CBOs, NGOs, etc.) and their representatives at various locations.
ii) Carry out liaison with all concerned agencies including NDRF and Armed Forces and line departments of Government.
iii) Monitor Operations to identify current or potential inter-agency problems.
iv) Participate in planning meetings and provide information on response by participating agencies.
v) Ask for personnel support if required.
vi) Keep the IC informed about arrivals of all the Government and Non-Government agencies and their resources.
vii) Help in organizing briefing sessions of all Governmental and Non-Governmental agencies with the IC.
viii) Maintain records of various activities performed, pertaining to the above mentioned actions.
ix) Perform such other duties as assigned by IC.

3.12.6 Roles and responsibilities of Safety Officer (SO)

The Safety Officer‘s (SO) function is to develop and recommend The Safety Officer‘s (SO) function is to develop and recommend
measures for ensuring safety of personnel, and to assess and/or anticipate hazardous and unsafe situations. The SO is authorized to stop or prevent unsafe acts. The SO may also give general advice on safety of affected communities. The SO shall have the following roles and responsibilities:-

i) Recommend measures for assuring safety of responders and to assess or anticipate hazardous and unsafe situations and review it regularly.
ii) Ask for assistants and assign responsibilities as required.
iii) Participate in planning meetings for preparation of IAP.
iv) Review the IAP for safety implications.
v) Obtain details of accidents that have occurred within the incident area if required or as directed by IC and inform the appropriate authorities.
vi) Maintain record of various activities performed by him.
vii) vii) Perform such other duties as assigned by IC.

3.12.7 Roles and responsibilities of Operation Section Chief (OSC)

On activation of the Operation Section, the OSC will assume command of all the field operations and will be fully responsible for directing all tactical actions to meet the incident objectives. The OSC will be responsible for activation, deployment and expansion of his Section as per IAP. The following are the roles and responsibilities of the OSC: -

i. Co-ordinate with the activated Section Chiefs.
ii. Manage all field operations for the accomplishment of the incident objectives.
iii. Ensure the overall safety of personnel involved in the Operation Section (OS) and the affected communities.
iv. Deploy, activate, expand and supervise organizational elements (Branch, Division, Group, etc.) in his Section in consultation with IC and in accordance with the IAP.
v. Assign appropriate personnel, keeping their capabilities for the task in mind and maintain On Duty Officers list for the day.
vi. Request IC for providing a Deputy OSC for assistance, if required and depending on the scale of disaster.
vii. Brief the personnel in OS at the beginning of each operational period.
viii. Ensure resolution of all conflicts, information sharing, co-ordination and co-operation between the various Branches of his Section.
ix. Prepare Section Operational Plan in accordance with the IAP; if required.
x. Suggest expedient changes in the IAP to the IC.
xi. Consult the IC from time-to-time and keep him fully briefed.
xii. Determine the need for additional resources and place demands accordingly and ensure their arrival.
xiii. Ensure records of various activities performed by members of Branches, Divisions, Units/Groups and maintained in the Unit Log
xiv. Perform such other duties as assigned by Responsible Officer/IC.

3.12.8 Roles and responsibilities of Staging Area Manager (SAM)

The Staging Area (SA) is an area where resources are collected and kept ready for deployment for field operations. These may include things like food, vehicles and other materials and equipment's. The SA will be established at a suitable area near the affected site for immediate, effective and quick deployment of resources. More than one SA may be established if required. School and college playgrounds, community halls, cyclone shelters and Local Council Offices, etc. may be used as SA.

The overall in-charge of the SA is known as Staging Area Manager (SAM) and he needs to work in close liaison with both the Liaison Section and Planning Section through the OSC. The roles and responsibilities of SAM are as follows:-

i) Establish the SA with proper layout, maintain it in an orderly condition and ensure that there is no obstruction to the incoming and outgoing vehicles, resources, etc.
ii) Organize storage and dispatch of resources received and dispatch it as per IAP.
iii) Report all receipts and dispatches to OSC and maintain their records. iv) Manage all activities of the SA.
v) Utilize all perishable supplies expeditiously and establish check-in function.
vi) Request maintenance and repair of equipment at SA, as needed.
vii) Ensure that communications are established with the ICP and other required locations; e.g. various SAs, Incident Base, Relief Camp etc.
viii) Maintain and provide resource status to Planning and Liaison Section.
ix) Demobilize SA in accordance with the Demobilization Plan.
x) Keep records of various tasks fulfilled and send to Sections concerned.
xi) Perform any other duties as assigned by OSC.

3.12.9 Roles and responsibilities of Response Branch Director (RBD)

Response Branch is the main responder in the field dealing with the situation and performing various functions. Depending on the scale of disaster, the RBD may have to expand the number of Groups which in turn may require creation of Division. This structure is meant for close supervision by the OSC in the management of a large incident. More Branches, Divisions, Groups may be formed as required. The following are the roles and responsibilities of RBD:-

i) Work under the supervision of the OSC and is responsible for the implementation of IAP as per the assigned role.
ii) Attend planning meetings as required by the OSC.
iii) Review Assignment Lists for Divisions or Groups under his Branch.
iv) Assign specific tasks to Division and Groups-in-Charge.
v) Supervise Branch function and resolve conflicts report by subordinates.
vi) Report to OSC regarding modifications required if any in the IAP, need for additional resources, availability of surplus resources and when hazardous situations or significant events occur, etc.
vii) Provide Single Resource, Strike Team and Task Force support to various operational areas.
viii) Ensure that all team leaders maintain record of various activities performed - relating to their field Operations and send to OSC.
ix) Perform any other duties assigned by the OSC.

3.12.10 Roles and responsibilities of Division Supervisor/Group-in-charge

Except for the hierarchical difference, the roles and responsibilities of the Division Supervisor and the Groups-in-charge are the same. Divisions are activated when there are supervisory requirements in an isolated and distant geographical area or for the purpose of a proper span of control when the number of functional Groups increases or for various specialized response.

While Groups-in-charge are assigned to accomplish specific functions within the Branch, Division is created for effective supervision over a large number of Groups. The Division Supervisor/Group-in-charge will have the following responsibilities:-

i) Implement Division or Group assignment list.
ii) Assign resources within the Division or Group under them.
iii) Report on the progress of Operations, and the status of resources within the Division or Group.
iv) Circulate Organizational Assignment List (Divisional / Group) to the leaders of the Group, Strike Team and Task Force.
v) Review assignments and incident activities with subordinates and assign tasks as per the situation.
vi) Co-ordinate activities with adjacent Divisions or Groups, if required. vii) Submit situation and resource status to the RBD and the OSC.
viii) Report all hazardous situations, special occurrences or significant events (e.g., accidents, sickness, deteriorating weather conditions, etc.) to the RBD and the OSC.
ix) Resolve problems within the Division or Group.
x) Participate in the development of IAP for next operational period..
xi) Ensure that records of various activities performed are collected and sent to the RBD and OSC.
xii) Perform any other duties as assigned by the RBD/OSC.

3.12.11 Roles and responsibilities of Task/Strike Team

A Strike Team is a combination of Single Resource with a common communication facility and one leader. A Task Force is a combination of different Single Resources. They are assembled for a particular tactical need, with a common communication facility and one leader. A Strike Team may be needed when specific type of work, requiring specific expertise and resources are grouped under one leader. A Task Force may be grouped with different 'kinds' and 'types' of Single Resource and dispatched under a leader, when a number of different tasks requiring different expertise need to be performed.

The Strike Team or Task Force Leader reports to the Division Supervisor or Group Supervisor and is responsible for performing the tactical assignments assigned to the Strike Team or Task Force. The leader of the Strike Team and Task Force reports on work progress and status of resources, maintains work records on assigned personnel and relays important information to their supervisor. In case the Branch, Division, or Group is not activated, the team leader will directly report to the OSC. At the District levels, the Task Force/Strike Team shall comprise of SDRF, MRP, IR, Fire & Emergency Services, Sub Headquarters Young Mizo Association (Disaster Management volunteers). The team leader of the Task Force/ Strike Team shall have the following responsibilities:-

i) Review assignments with members of his team.
ii) Report on work progress.
iii) Co-ordinate activities with adjacent Single Resource, Strike Teams and Task Forces if assigned.
iv) Establish and ensure communications.
v) Perform any other duties assigned and keep record of all activities.

3.12.12 Roles and responsibilities of Single Resource Leader (SRL)

Single Resource includes both personnel and their required equipment to be deployed in a given incident. The Responsible Officers will ensure that the resources are categorized into 'kind' and 'type'. 'Kind' refers to equipment, vehicles or personnel for example truck, medical team, bulldozer, etc. 'Type' refers to its capacity for that kind of resource e.g. truck having 1 ton capacity or 2 tons capacity, medical team having 1 doctor and 3 paramedics etc.

Depending on the Resources at the District the Single resources shall constitute available resources from Sr. Medical Officer (Health & Family Welfare Dept.), Sub Divisional Officer (Public Work Dept./Power & Electricity Dept.). The Single Resource leader will be the appointed by the OSC depending on the type of disaster and shall have the following responsibilities:-

i) Take charge of necessary equipment and supplies.
ii) Assess local weather and environmental conditions, law and order situation etc. in the assigned area and report to the in-charge.
iii) Perform the assigned duty. iv) Keep contact with supervisor
iv) Perform any other duties that may be assigned by his supervisor.

3.12.13 Roles and responsibilities of Transport Branch Director (TBD)

All functional Groups (Road, Water and Air) of the Transport Branch are managed by the Transport Branch Director (TBD). The TBD at the District shall be the District Transport Officer. Since the air transportation is to be co-ordinated at the State and District levels, the TBD also needs to function in close co-ordination with Responsible Officer (RO), Incident Commander (IC) and Nodal Officer (NO) for Air Operations. He will collect the details of all related flights from the concerned NO and organize the ground support requirement. The TBD will also be responsible for the activation and expansion of various functional Groups as per the IAP. Besides, the TBD will have the following responsibilities:-

i) Activate and manage different Operations Groups like Road and Air.
ii) Co-ordinate with the Liaison Section for required resources, and activate Groups of his Branch.
iii) Co-ordinate with road transport and airport authorities for support as required.
iv) Ensure that Organizational Assignment List (Divisional / Group) is circulated among the Group-in-charge(s) and other responders of his Branch.
v) Provide ground support to the air operations and ensure appropriate security arrangements.
vi) Ensure safety of all personnel of his Branch involved in the Incident Response activities. vii) Ensure that all units moving in the area are familiarized with route with the help of road maps or local guides. viii) Report to the OSC and IC about progress of the Transport Branch. ix) Prepare transportation plan as per the IAP, if required.
x) Determine the need for additional resources, their proper and full use and place demand accordingly in advance.
xi) Resolve problems and conflicts, if any.

xii) Ensure the maintenance of the status of hired resources, their full utilization and timely release.
xiii) Ensure that the records of various activities performed by different operational groups (Road and Air) are collected and sent to the Section concerned.
xiv) Perform any other duties assigned by the IC or OSC.

3.12.14 Roles and responsibilities of Group-in-charge (Road)

The Group-in-charge (Road Operations) works under the TBD and is responsible for all road transportation activities. He has a Vehicle Coordinator (Road Operations) under him for assistance. The following are some of the responsibilities:-

i) Ensure transportation of resources by Road to the affected sites.
ii) Requisition additional personnel support, if required. iii) Attend planning meetings on the direction of OSC.
iv) Determine coordination procedures with various places as per IAP.
v) Ensure proper parking locations.
vi) Resolve conflicts of the Group, if any.
vii) Update Road Operations plan as required and share them with higher authorities.
viii) In case of accidents, inform the TBD, the local police and provide assistance in investigation, if required.
ix) Ensure that mechanics are available for repair of vehicles and also ensure adequate availability of Petrol, Oil and Lubricants (POL).
x) Maintain the records of all important activities relating to the number of vehicles deployed, source of vehicles (i.e. Government or private), locations where vehicles are deployed along with resource details they are carrying, etc.
xi) Collect records of various activities performed from co-ordinator and other members and send to TBD or OSC.
xii) Perform any other duties assigned by the TBD or OSC.

3.12.15 Roles and responsibilities of Vehicle Co-ordinator

The Vehicle Coordinator is primarily responsible for coordinating the Road transport needs. There may be more than one coordinator depending upon the number of vehicles deployed. The following are their responsibilities:-

i) Survey the assigned incident area to analyze situation and identify other potential problems in the context of transportation.
ii) Co-ordinate with SAM for smooth transportation of resources.
iii) Receive assignments, brief drivers regarding the routes, assign missions, supervise vehicle movement and attend to the vehicle maintenance and repair needs.
iv) Monitor activities of all assigned vehicles and keep senior officers informed.
v) Report incidents or accidents that occur in Road Operations to the TBD.
vi) Maintain the records of supplies to different locations and keep track of vehicle movements. Provide GPS support, if available. vii) Request security support for transportation of relief materials if required and alert the police administration in the affected areas along the transportation route.

viii) Maintain co-ordination at loading and unloading points.
ix) Ensure that communication facilities are established at loading stations, SAs and destination points.
x) Attend to and resolve the needs of the personnel working under him.
xi) Maintain record of various activities performed and send to the Group-in-charge or TBD.
xii) Perform any other duties assigned by the OSC or TBD.

3.12.16 Roles and responsibilities of Loading/Unloading-in-charge (Road/Water)

The Loading and Unloading-in-charge has a very significant role to play in any disaster response. The roles and responsibilities in Road and Water Operations are the same whereas the roles and responsibilities for the Air Operations is slightly different. Therefore, the roles and responsibilities of Loading / Unloading-in-charge are being dealt together for the Road and Water and separately for the Air Operations. The Loading / Unloading-incharge will work under the Road and Water Coordinator. The following are the responsibilities:-

i) Supervise the safe Operations of Loading / Unloading activities.
ii) Obtain Operations Summary from the Groups-in-charge (Road and Water transport).
iii) Organize the Loading area and supervise Loading and Unloading crews and collect equipment (ladder, gloves, helmet, etc.) as required.
iv) From time to time inform the coordinator about the progress of Loading/ Unloading activities.
v) Prepare a Loading/Unloading plan with details of their resources and destinations. vi) Maintain record of various activities performed and send to the TBD or Coordinator.
vii) Perform any other duties assigned by Co-ordinator or in-charge (Road and Water).

3.12.17 Roles and responsibilities of Group-in-charge (Water)

The Group-in-charge shall have the following responsibilities:-

i) Ensure transportation of rescue teams and relief materials by motor boats or by any other water transport to the affected sites with communication facilities and a local guide for guidance with each team.
ii) Requisition personnel support, if required.
iii) Determine co-ordination procedures with various destinations as per IAP.
iv) Supervise all Water Operations and related activities associated with the incident.
v) Update Water Operations plan and share it with the higher authorities, including the Liaison Section Chief.
vi) Arrange for an accident investigation team as and when required and co-operate with the appropriate investigating authorities.
vii) Ensure availability of POL and other logistic support for boat operations.
viii) Attend to the needs of the personnel working with him.
ix) Collect record of various activities performed from Co-ordinator and other in-charges and send to TBD or OSC.
x) Perform such other duties as assigned by TBD or OSC.

3.12.18 Roles and responsibilities of Group-in-charge (Air Operations)

The following are the responsibilities of Group-in-charge (Air Operations):-

i) Provide ground support to Air Operations as per the IAP.
ii) Identify convenient and easily accessible helipad for Air Operation
iii) Report to TBD the progress of Air Operations and work in close coordination with the Nodal Officer (NO), IC, OSC and TBD.
iv) Ensure resources and supplies required for the Air Operations are available at the concerned locations.
v) Keep appropriate Maps in order to provide correct coordinates to the pilots and others involved in the Air Operations.
vi) Requisition additional personnel support, if required.
vii) Ensure refueling facilities are available at the landing and takeoff locations.
viii) Ensure that Helipad locations are identified and approved by the appropriate authorities.
ix) Determine the need for assignment of personnel and equipment at each Helipad.
x) Ensure that the communication systems are in place.
xi) Update landing and takeoff schedule of Helicopters as informed by Nodal Officer (Air operations). xii) Ensure preparation of the load manifest for proper loading or unloading of relief supplies.
xiii) Arrange for unloading and dispatch or storage of relief materials that arrive at the helipad. In order to keep helipad operational, special attention needs to be paid to unsolicited relief supplies that may arrive. They should be immediately cleared from the operational area.
xiv) Ensure that proper packaging and weighing facilities are in place and used for loading of relief materials.
xv) Liaise with the road operations group for the road transportation needs.
xvi) Ensure the functionality of Helicopter rescue and firefighting service at Helipads such that security, lightings, smoke candles/ devices, weighing facilities, wind direction socks, etc., are in place.
xvii) Collect record of various activities performed from Helipad-incharge and send to TBD or OSC or IC.
xviii) Perform any other duties assigned by the TBD.

3.12.19 Roles and responsibilities of Helipad-in-charge (Air Operations)

The following are the responsibilities of Helipad-in-charge (Air Operations):-

i) Provide all ground support to Helicopters at the location.
ii) Keep appropriate Maps in order to provide correct coordinates to the pilots.
iii) Survey the Helibase/Helipad area to analyze situation, potential Aircraft hazards and other likely problems.
iv) Ensure that the Helipad and Helibase is properly marked so that it is visible from the air for smooth landing of Aircrafts.
v) Co-ordinate with the ground supervisor for Helicopter Operations.
vi) Determine and implement ground and air safety requirements and procedures.
vii) Maintain continuous monitoring of the assigned Helibases and Helipads and be aware for unusual happening or hazards that may affect the Air Operations and take precautionary measures.

viii) Ensure that all personnel deployed at the Helibases and Helipads are aware of the safety requirements.
ix) Establish ground communication facilities.
x) Notify supervisor immediately in case of any delays in Helicopter schedules.
xi) Ensure Aircraft rescue measures, firefighting services, lights, smoke candles, weighing facilities, wind direction socks, dust abatement measures and security etc. are in place and working properly at Helibases and Helipads.
xii) Ensure proper facilities for rest, refreshment, water and sanitation for the Air crew.
xiii) Inform the supervisor about the mission completion.
xiv) Maintain record of various activities performed and send to Group-in-charge.
xv) Perform any other duties assigned by the Group-in-charge.

3.12.20 Roles and responsibilities of loading/unloading-in-charge (Air Operation)

The Loading/Unloading-in-charge will have the following responsibilities:-

i) Be responsible for the safe Operations of Loading and Unloading of cargo and personnel at Helibases.
ii) Report to the Helibases and Helipad-in-charge.
iii) Ensure load manifest of personnel and cargo.
iv) Ensure no inflammable material is loaded on the Aircrafts.
v) Supervise loading and unloading crew.
vi) Ensure proper packaging of the loads and make sure that weighing facilities are available to keep the weight within restriction.
vii) Keep records of all activities fulfilled and send to Group-in-charge.
viii) Perform any other duties as assigned by the Group-in-charge, Helibase-in-charge and Helipad-in-charge.

3.12.21 Roles and responsibilities of Planning Section Chief (PSC)

The Deputy Commissioner shall be the PSC and have the following responsibilities:-

i) Co-ordinate with the activated Section Chiefs for planning and preparation of Incident Action Plan (IAP) in consultation with IC.
ii) Ensure that decisions taken and directions issued in case of sudden disasters when the Planning Section (PS) had not been activated are obtained from the IMO (Command Staff) and incorporated in the IAP.
iii) Ensure collection, evaluation, and dissemination of information about the incidents including weather, environment toxicity, availability of resources etc. from concerned departments and other sources. The PS must have a databank of available resources with their locations from where it can be mobilized.
iv) Co-ordinate by assessing the current situation, predicting probable course of the incident and preparing alternative strategies for the Operations by preparing the IAP.
v) Ensure that Organizational Assignment List (Divisional / Group is circulated among the Unit leaders and members of his Section.

vi) Plan to activate and deactivate IRS organizational positions as appropriate, in consultation with the IC and OSC.
vii) Find the need of any special resources for managing the incident.
viii) Utilize IT solutions for pro-active planning, GIS for decision support and modelling capabilities for assessing and estimating casualties and for comprehensive response management plan.
ix) Provide periodic projections on incident potential.
x) Report to the IC of any significant changes that take place in the incident status.
xi) Compile and display incident status summary at the ICP.
xii) Oversee preparation and implementation of Incident Demobilization Plan.
xiii) Assign appropriate personnel, keeping their capabilities for the tasks in mind and maintain On Duty Officers List for the day.
xiv) Ensure that record of various activities performed by members of Units are collected and maintained in the Unit Log.
xv) Perform any other duties assigned by IC.

3.12.22 Roles and responsibilities of Resource Unit Leader (RUL)

The RUL shall have the following responsibilities:-

i) Maintain and display the status of all assigned resources (Primary and Support) at the incident site by overseeing the check-in of all resources, and maintaining a resource status-keeping system. Primary resources are meant for responders and support resources are meant for affected communities.
ii) Compile a complete inventory of all resources available. He will also access information about availability of all required resources at other locations and prepare a plan for their mobilization, if required. India Disaster Resource Network (IDRN), Corporate Disaster Resource Network (CDRN) and India Disaster Knowledge Network (IDKN) facilities will also be used for this purpose.
iii) Ensure and establish Check-in function at various incident locations.
iv) Update the PSC and IC about the status of resources received and dispatched from time to time.
v) Coordinate with the various Branches, Divisions and Groups of OS for checking status and utilization of allotted resources.
vi) Ensure quick and proper utilization of perishable resources. vii) Keep record of all activities fulfilled and send to Section concerned. viii) Perform any other duties assigned by PSC.

3.12.23 Roles and responsibilities of Check-in/Status Recorder

The Check-in/Status Recorder shall have the following responsibilities:-

i) Ensure that all resources assigned to an incident are accounted for at each check-in point.
ii) Obtain required work materials, including Check-in Lists, Resource Status display boards showing different locations for deployment of resources, collection of resources with time of arrival and type of resources etc.
iii) Establish communications with the EOC and Ground Support Unit (GSU) of LS.

iv) Ensure displays of check-in locations on signboard so that arriving resources can easily locate the Check-in location(s).
v) Enter or record information on Incident Check-in and deployment list.
vi) Transmit Incident Check-in and deployment information to Resource Unit on a regular and prearranged schedule or as needed.
vii) Forward completed Check-in Lists to the Resource Unit.
viii) Maintain record of various activities performed and send to Sections concerned.
ix) Perform any other duties as assigned by PSC.

3.12.24 Roles and responsibilities of Situation Unit Leader (SUL)

The SUL shall have the following responsibilities:-

i) Collect, process and organize all incident information as soon as possible for analysis. For such purposes, he can take the help of members of the Single Resource, Task Forces, Strike Teams, field level Government officers and members of PRIs, CBOs, and NGO's etc.
ii) Prepare periodic future projections of the development of the incident (along with maps if required) and keep the PSC and IC informed.
iii) Prepare situation and resource status reports and disseminate as required.
iv) Provide authorized maps, photographic services to responders, if required.
v) Attend IAP Meeting with required information, data, documents and Survey of India Maps, etc.
vi) Keep record of all activities fulfilled and send to Section concerned.
vii) Perform such other duties assigned by SUL or PSC.

3.12.25 Roles and responsibilities of Display Processor (DP)

The Display Processor (DP) is responsible for the display of incident status information obtained from Field Observers (FOs), Single Resource, Strike Teams, Task Forces, and through other sources. He shall have the following responsibilities:-

i) Display incident status obtained from Field Observers (FOs), Single Resource, Strike Teams, Task Forces, aerial photographs and other data received from technical Sources.
ii) Report to the SUL.
iii) Ensure timely completion of display chart.
iv) Obtain necessary equipment and stationery.
v) Assist in analyzing and evaluating field reports.
vi) Maintain record of various activities performed and send to the SUL.
vii) Perform such other duties as assigned by SUL or PSC.

3.12.26 Roles and responsibilities of Field Observer (FO)

The Field Observer (FO) is responsible for collecting situation information from personal observations of the incident and provides this information to the SUL. The PSC will specially designate the individuals for such purpose.

The FO shall have the following responsibilities:-

i) Maintain record of various activities performed and send to the SUL.
ii) Report to SUL immediately on any situation observed which may cause danger and safety hazard to responders and affected communities. This should also include local weather conditions.

iii) Gather intelligence that may facilitate better planning and effective response.
iv) Perform such other duties as assigned by SUL or PSC.

3.12.27 Roles and responsibilities of Weather Observer (WO)

The WO shall report weather Condition to PSC and obtain weather forecast data of the place from IMD, Science & Technology Department, etc., and report to PSC.

3.12.28 Roles and responsibilities of Documentation Unit Leader (DUL)

The DUL shall have the following responsibilities:-

i) Ensure that all the required forms and stationery are procured and issued to all the activated Sections, Branches, Divisions, Groups and Units.
ii) Compile all information and reports related to the incident.
iii) Inform appropriate Units of errors or omissions in their documentation, if any, and ensure that errors and omissions are rectified.
iv) Store files properly for post-incident analysis.
v) Maintain record of various activities performed and send to Sections concerned.
vi) Perform any other duties as assigned by the PSC.

3.12.29 Roles and responsibilities of Demobilization Unit Leader (Demob. UL)

The Demob. UL shall have the following responsibilities:-

i) Prepare Incident Demobilization Plan (IDP).
ii) Identify surplus resources and prepare a tentative IDP in consultation with the PSC and give priority to demobilization of surplus resources.
iii) Develop incident check-out functions for Sections, Branches, Divisions and units in consultation with all Sections and send to the PS.
iv) Plan for logistics and transportation support for Incident Demobilization in consultation with LS.
v) Disseminate IDP at an appropriate time to various stakeholders involved.
vi) Ensure that all Sections, Units, Teams and Resources understand their specific Incident Demobilization responsibilities and avail Demobilization facilities.
vii) Arrange for proper supervision and execution of the IDP.
viii) Brief the PSC on the progress of Demobilization.
ix) Request the PSC for additional human resources, if required.
x) Maintain record of various activities performed and send to Sections concerned.
xi) Perform any other duties assigned by the PSC.

3.12.30 Roles and responsibilities of Technical Specialists (TS)

In consultation with the RO and IC, the Planning Section Chief (PSC) may mobilize Technical Resources and Specialists for specialized response, if required. They may be deployed for technical planning or specialized technical response and will function under the concerned section chief. The TS will provide technical support to the response activities.

3.12.31 Roles and responsibilities of Logistic Section Chief (LSC)

The LSC shall have the following responsibilities:-

i) Co-ordinate with the activated Section Chiefs.
ii) Provide logistic support to all incident response effort including the establishment of SA, Incident Base, Camp, Relief Camp, Helipad etc.
iii) Participate in the development and implementation of the IAP.
iv) Keep RO and IC informed on related financial issues.
v) Ensure that Organizational Assignment List (Divisional / Group) is circulated among the Branch Directors and other responders of his Section.
vi) Request for sanction of Imprested Fund, if required.
vii) Supervise the activated Units of his Section.
viii) Ensure the safety of the personnel of his Section.
ix) Assign work locations and preliminary work tasks to Section personnel.
x) Ensure that a plan is developed to meet the logistic requirements of the IAP with the help of Comprehensive Resource Management System.
xi) Brief Branch Directors and Unit Leaders.
xii) Anticipate over all logistic requirements for relief Operations and prepare accordingly.
xiii) Constantly review the Communication Plan, Medical Plan and Traffic Plan to meet the changing requirements of the situation. xiv) Assess the requirement of additional resources and take steps for their procurement in consultation with the RO and IC.
xiv) Provide logistic support for the IDP as approved by the RO and IC.
xv) Ensure release of resources in conformity with the IDP.
xvii) Ensure that the hiring of the requisitioned resources is properly documented and paid by the FB.
xviii) Assign appropriate personnel, keeping their capabilities for the tasks to be carried out and maintain On Duty Officers List for the day.
xix) Ensure that cost analysis of the total response activities is prepared.
xx) Ensure that record of various activities performed by members of Branches and Units are collected and maintained in the Unit Log.
xxi) Perform any other duties as assigned by RO or IC.

3.12.32 Roles and responsibilities of Service Branch Director (SBD)

The SBD shall have the following responsibilities:-

i) Work under the supervision of LSC, and manage all required service support for the incident management.
ii) Manage and supervise various Units of the Branch like Communication Unit, Medical Unit, Food Unit and any other activated Unit.
iii) Discuss with activated Unit leaders for the materials and resources required and procure the same through LS.
iv) Ensure proper dispatch of personnel, teams, resources, etc., as per the IAP.
v) Prepare an assignment list, if required.
vi) Keep the LSC informed about the progress of Service Branch, from time-to-time.
vii) Resolve Service Branch problems, if any.

viii) Maintain record of various activities performed and send to sections concerned.
ix) Perform any other duties assigned by the IC and LSC.

3.12.33 Roles and responsibilities of Communication Unit Leader (Com. UL)

He shall have the following responsibilities:-

i) Work under the direction of the SBD and provide communications facility as and when required.
ii) Ensure that all communications equipment's available are in working condition and that the network is functional.
iii) Supervise Communication Unit activities.
iv) Keep records of all communication equipment deployed in the field.
v) Recover equipment provided by Communication Unit after the incident is over.
vi) Ensure that it is properly linked with the IDP.
vii) Ensure setting up of a message center to receive and transmit radio, telephone and other messages from various activated Sections, Branches, Units and higher authorities and maintain their records.
viii) Prepare an alternative communication plan for execution in case of possible failure of the normal communications network. The alternative communications network may have wireless, satellite phones, cell phones, HAM radios, Morse code torch signal, etc.
ix) Prepare a plan for integration of the communications set up of the central teams (NDRF, Armed Forces) with the local communications set up for the management of large scale disasters when they come to assist in the response effort.
x) Ensure that the communications plan is supporting the IAP.
xi) Demobilize Communications Center in accordance with the IDP.
xii) Maintain record of various activities performed and send to SBD.
xiii) Perform any other duties assigned by the SBD or LSC.

3.12.34 Roles and responsibilities of Medical Unit Leader (MUL)

The MUL shall have the following responsibilities:-

i) Work under the direction of the SBD.
ii) Prepare the Medical Plan and procurement of required resources as per IAP, provide medical aid and ambulance for transportation of victims and maintain the records of the same, obtain a road map of the area from the PS for the ambulance services, transportation of medical personnel and victims.
iii) Respond to requests of the OS for medical aid, transportation and medical supplies etc. under intimation to the SBD and LSC.
iv) Keep list of medical personnel who can be utilized in times of need.
v) Requisition more human resources as and when required to meet the incident Objectives.
vi) Prepare and circulate list of referral service centers to all the medical team leaders.
vii) Maintain records of various activities. viii) Performed any other duties assigned by the SBD and LSC.

3.12.35 Roles and responsibilities of Food Unit Leader (FUL)

The FUL shall have the following responsibilities:-

i) Work under the direction of the SBD.
ii) Supply resources to various activated Sections, Branches, Units and Groups of IRT as per direction of the SBD.
iii) Supply food to Personnel of IRT(s) at ICP, Camps, Incident Base, SA and Victims at the temporary shelters, relief camps etc.
iv) Request for assistants if the task becomes very large. The FUL may request the LSC to split the unit into two groups—one to supply food for personnel and another for victims.
v) Requisition transport for supply of food to incident base, relief camp and other facilities.
vi) Determine food and drinking water requirements and their transportation, and brief the SBD and LSC.
vii) Maintain an inventory of receipt and dispatch of resources.
viii) Supervise the Unit activities.
ix) Maintain record of various activities performed and send to SBD.
x) Perform any other duties assigned by the SBD and LSC.

3.12.36 Roles and responsibilities of Support Branch Director (Sup. BD)

The Sup. BD shall have the following responsibilities:-

i) Work under the supervision of LSC, and supervise the function of Resource Provisioning Unit, Facility Unit and Ground Support Unit.
ii) Procure and dispatch required tactical materials and resources for Operations with the concurrence of the Section Chief.
iii) Participate in the planning meeting of the LS.
iv) Ensure that organization assignment list concerning the Branch is circulated to all Units under him.
v) Co-ordinate various activities of the Support Branch.
vi) Keep the LSC informed about the progress of work.
vii) Resolve problems within his unit, if any.
viii) Maintain record of various activities performed and send to Section concerned.
ix) Perform any other duties assigned by the LSC.

3.12.37 Roles and responsibilities of Resource Provisioning Unit Leader (RPUL)

The RPUL shall have the following responsibilities:-

i) Work under the supervision of Sup.BD.
ii) Organize movement of personnel, equipment and supplies.
iii) Receive and store safely all supplies required for the incident response.
iv) Maintain the inventory of supplies and equipment.
v) Maintain the records of receipt and dispatch of supplies including equipment and Personnel.
vi) Organize repair and service of non-expendable supplies and equipment.
vii) Participate in the planning meeting of LS.
viii) Monitor the 'Kind', 'Type' and quantity of supplies available and dispatched.
ix) Receive and respond to requests for personnel, supplies and equipment

from the activated Sections, Branches, Divisions, Units and Groups of the IRS organization under intimation to Sup. BD.

x) Requisition extra human resource assistance and these may be deployed for different functional activities such as Resource Ordering, Resource Receiving and Tool & Equipment maintenance.

xi) Maintain record of various activities performed and send to Sup.BD.

xii) Perform any other duty as assigned by LSC or Sup.BD.

3.12.38 Roles and responsibilities of Facilities Unit Leader (Fac. UL)

The Fac. UL shall have the following responsibilities:-

i) Prepare the layout and activation of incident facilities, e.g., Incident Base, Camp(s), Relief Camp(s), ICP, etc., and provide basic amenities to the responders.

ii) Locate the different facilities as per the IAP.

iii) Participate in the planning meeting of the Section, prepare list for each facilities and its requirements in coordination with the LSC.

iv) Ask for additional personnel support if required to monitor and manage facilities at Incident Base and Camp etc.

v) Maintain record of various activities performed and send to Sup. BD.

vi) Perform such other duties as assigned by the Sup. BD.

3.12.39 Roles and responsibilities of Ground Support Unit Leader (GSUL)

The GSUL shall have the following responsibilities:-

i) Work under the supervision of the Sup. BD.

ii) Provide transportation services for field operations to TBD.

iii) In case Air Operations are activated, organize and provide required ground support through TBD.

iv) Provide maintenance and repair services for all the vehicles and related equipment used for incident management as per proper procedures and keep the concerned line departments informed through the Sup. BD and LSC.

v) Develop and implement the Incident Traffic Plan.

vi) Inform Resource Unit about the availability and serviceability of all vehicles and equipment.

vii) Arrange for and activate fueling requirements for all transport including Aircrafts in consultation with the Sup. BD.

viii) Maintain inventory of assigned, available and off road or out of service resources.

ix) Ensure safety measures within his jurisdiction.

x) Maintain record of various activities performed and send to the Sup. BD.

xi) Perform any other duties as assigned by the Sup. BD.

3.12.40 Roles and responsibilities of Finance Branch Director (FBD)

The FBD shall have the following responsibilities:-

i) Work under the LSC.

ii) Attend planning meetings.

iii) Prepare a list of resources to be mobilized, procured or hired in accordance

with the IAP. Obtain orders of the competent authority as per financial rules and take steps for their procurement without delay.

iv) Ensure that time records of hired equipment, personnel and their services are accurately maintained as per Government norms for payment.

v) Examine and scrutinize cost involved in the entire response activity including the demobilization, analysis the cost effectiveness and keep the LSC informed.

vi) Ensure that all obligation documents initiated at the incident are properly prepared, completed, verified and signed by the appropriate Section Chief and BD.

vii) Brief the LSC or IC on all incident related financial issues needing attention or follow-up.

viii) Maintain record of various activities performed and send to Sections concerned.

ix) Perform any other duties as assigned by the LSC or IC.

3.12.41 Roles and responsibilities of Time Unit Leader (TUL)

The TUL shall have the following responsibilities:-

i) Maintain record of hired equipment and personnel and ensure that it is maintained on a daily basis and according to Government norms.

ii) Examine logs of all hired equipment and personnel with regard to their optimal Utilization.

iii) Ensure that all records are correct and complete prior to demobilization of hired Resources.

iv) Brief the FBD on current problems with recommendations on outstanding issues, and any follow-up required.

v) Ask for additional support of human resources, if required.

vi) Maintain record of the activities performed and send to FBD.

vii) Perform any other duties as assigned by the FBD.

3.12.42 Roles and responsibilities of Compensation/Claim Unit Leader (Com./CUL)

The Com./CUL shall have the following responsibilities: -

i) Collect all cost data and provide cost estimates.

ii) Prepare and keep list of requisitioned premises, services, resources and vehicles, etc., with correct date and time of such requisition.

iii) Follow appropriate procedures for preparation of claims and compensation.

iv) Requisition additional human resources, if required.

v) Maintain record of various activities performed and send to FBD.

vi) Perform any other duties as assigned by the FBD.

3.12.43 Roles and responsibilities of Procurement Unit Leader (PUL)

The Deputy Commissioner shall be the PUL and have the following responsibilities:-

i) Attend to all financial matters pertaining to vendors and contracts.

ii) Review procurement needs in consultation with the FBD.

iii) Prepare list of vendors from whom procurement can be done and follow proper Procedures.

iv) Ensure all procurements ordered are delivered on time.
v) Co-ordinate with the FBD for use of impress funds, as required.
vi) Complete final processing of all bills arising out of the response management and send documents for payment with the approval of the FBD, LSC and IC.
vii) Brief FBD on current problems with recommendations on outstanding issues and follow-up requirements.
viii) Maintain record of activities performed and send to FBD.
ix) Perform any other duties as assigned by the FBD.

3.12.44 Roles and responsibilities of Cost Unit Leader (CUL)

The CUL shall have the following responsibilities:-

i) Develop incident cost summaries in consultation with the FBD on the basis of Cost Analysis Report.
ii) Make cost-saving recommendations to the FBD.
iii) Finish all records relating to financial matters before demobilization.
iv) Maintain record of various activities performed and send to FBD.
v) Perform any other duties as assigned by the FBD.

CHAPTER 4

HAZARD, VULNERABILITY, CAPACITY & RISK ASSESSMENT

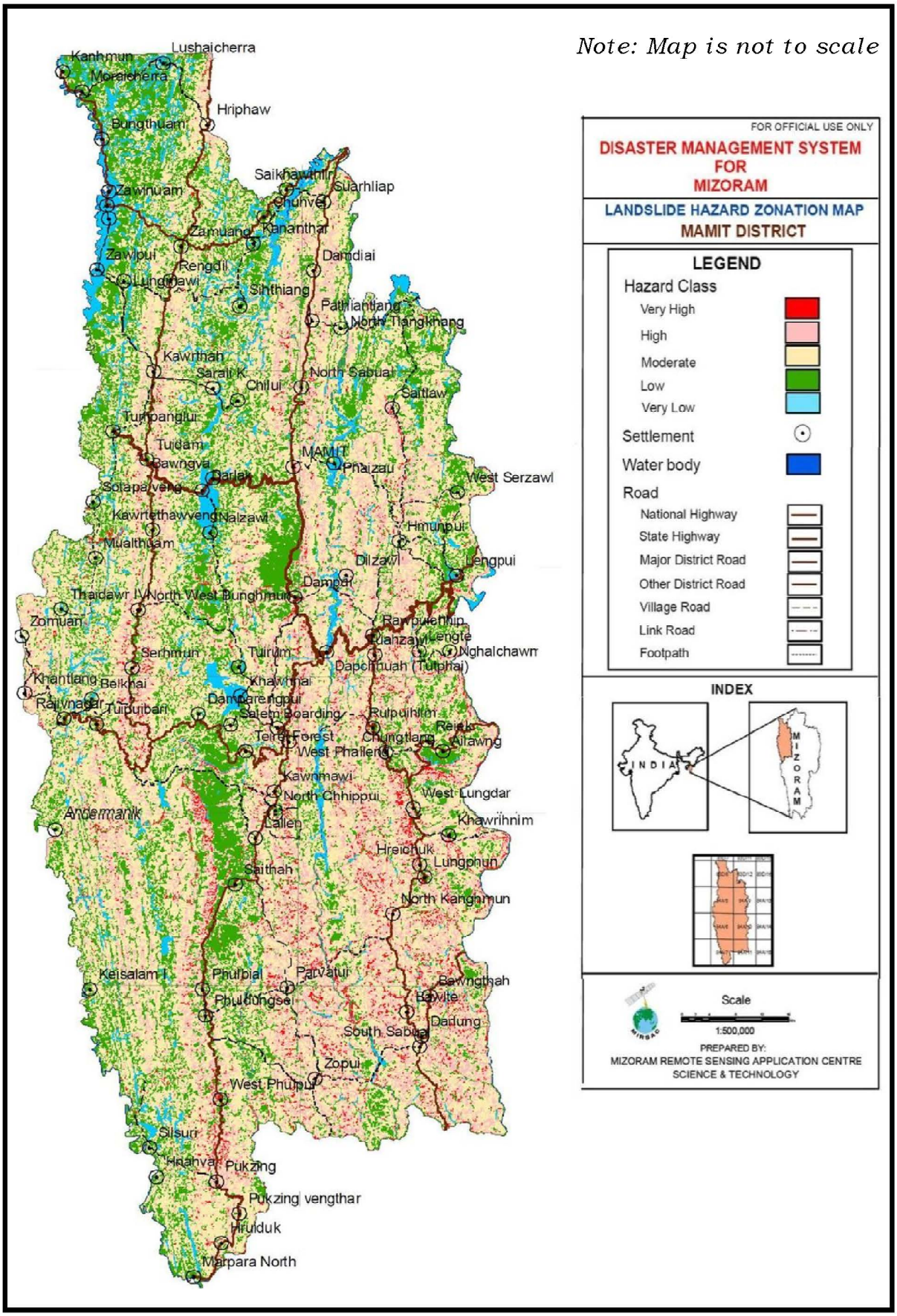
4.1 DISASTER PROBABILITY WITHIN MAMIT DISTRICT

Sl. No.	Type of Disaster	Time of Occurrence	Potential Impact/Probable Damages	Vulnerable Areas and Probability
1.	Landslide	June – September	Crops, Human, Animal and Infrastructure loss	The whole District (*Once in every year)*
2.	Cyclone	April – December	Crops, Human, Animal and Infrastructure Loss	Entire District *Once every year*
3.	Drought	April – June	Crop Loss	Mamit, W.Phaileng & Reiek Block (*Once every Five year)*
4.	Fire	January – June	Human, Animal and Infrastructure Loss	Entire District *(Once in every year)*
5.	Earthquake	January – December	Crops, Human, Animal and Infrastructure loss	Entire District *(No precise prediction)*
6.	Lightning	April – December	Human, Animal, Infrastructure loss	Entire District *Once or more every year*
7.	Flood	May - October	Crops, Human, Animal and Infrastructure loss	Some part of the District *(Once every year)*

4.2 LANDSLIDE

Landslide is the mass movement of materials such as earth, rock, mud, etc. Usually, landslide involving rock falls are fast and speedy, and are extremely danger as they tend to occur without warning. However, landslide such as land subsidence and creep can be relatively slow process and precautions can be taken to prevent or reduce its effects. Landslide is triggered by various natural agencies such as heavy rain, fault movement, erosion, earthquake, etc. It can also be and many times caused by human activities such as quarrying, slope cutting, mining, construction activities, deforestation, etc.

Landslide Hazard Zonation Map: Mamit District



Landslide in Mizoram -

Most parts of Mizoram, along with the eastern part of Tripura and western parts of Manipur are characterized by a very immature first order topography comprising steep slopes in poorly compacted siltstone, shale and sandstone. The region is subjected to frequent earthquakes with their epicenters along Indo-Burma border. With the high rainfall and occasional cloudbursts, slope failures culminating in disastrous landslide are recurrent features.

The landslides had occurred in different parts of Mamit District in the past which caused huge loss of life and property and disruption of road communication. Landslides that have occurred along the main major settlements which have attracted more attention were, therefore, studied in greater detail than those occurring in remote areas.

Causes of Landslide in Mamit District and Mizoram -

From the studies carried out by various agencies on the individual occurrences and the field observations carried out, the following conclusions have been drawn regarding the causes of mass movement of earth surfaces in Mizoram.

1) Almost all the landslides in the state have been caused by the combined effect of two or more factors:-
    - Steep Slopes with loose overburden consisting of clayey and silty materials.
    - Heavy rain and occasional cloudburst, resulting in percolation of water into the loose overburden and along tension cracks.
    - Soil erosion and head-ward erosion by streams.
    - Disturbance of the slope by excavation for construction of buildings and roads.
    - Loading of unstable slopes by concrete building and structures.
2) A potential cause of future landslide is the dumping of debris from rock quarries along steep hill slopes which may result in destruction of vegetation cover leading to slope erosion and ultimately to landslide.

Past experience of major Landslide in Mamit District -

Rawpuichhip Road: A small scale mass movement was observed at 10 Km from Lengpui along the Rawpuichhip road during the heavy monsoon in 2007. A major slide occurred at the location resulting in huge mass coming down the slope affecting a stretch of 150m length of road and tension crack developing in uphill slope. The main cause of this slide has been identified as the saturation of the over-burdened slope by rain water penetrating through tension cracks.

Mamit landslide in 2010: There was a massive landslide in Mamit Bazar Veng in 2010, in which 44 houses were dismantled affecting 83 families.

Other Slides and Slope Failures: In addition to the above, there are a number of minor slides and slopes failures especially along the roads. In many places along the roads stone quarrying and widening of the roads have resulted in rock debris fall on side slopes causing damage to the vegetation, erosion and landslips. There

were also several landslides every year especially during Rainy season which caused damage to the houses, roads, etc.

4.3 CYCLONE

The impact of cyclone is felt annually in Mizoram though, fortunately, the impact has not yet been devastating, it has often led to loss of properties and even lives. The impact of cyclone also often led to power line cut-off, blockade of roads, damage to crops and plantations, loss of livestock, etc.

Since Mizoram does not have any coastline, the probability of the occurrence of cyclone especially with storm surge does not pose a threat. But due to its position in climatic zone, cyclone in the form of strong winds and torrential rains may cause colossal devastation for Mizoram. Therefore, the need for emergency management plan to deal with the occurrence of disastrous cyclone is of utmost importance.

In the past, cyclone in the form of strong wind and torrential rains occurred in several villages.

Hazards Analysis -

Unstable loose soil, steep slope and fragile terrain a condition of Mizoram is not able to sustain for long any kind of strong winds and torrential rain. It results in landslide/rock slides which in turn lead to uprooting of trees, damage to agricultural crops, blocking of streams and roads, thereby often disrupting transportation and relief supply measures.

Most of the houses in rural areas are poorly constructed using local materials like bamboo, thatch and low quality timber; therefore, they are unable to withstand cyclonic winds and torrential rains.

The impact of cyclone leads to damage to cantilever structures such as electric poles, telephone poles and transmission line towers which may disrupt transmission of power as well as communication.

4.4 DISASTER AND DISABILITY

Disabled person is ¯Any person who has a physical or mental impairment that substantially limits one or more major life activities; has a record of such impairment; or is regarded as having such an impairment .

In any disaster, disabled persons, physically handicapped persons, old aged and small children contributes a good number of casualties due to their vulnerability. A special disaster management awareness campaign is needed to these people.

The DM Act of 2005 says that ¯Every Department and Office should have their respective Disaster Management Plan . When the Disaster Management Plan is made, it is better to incorporate a special plan for disability. The in-charge of disaster management in every office should appoint the staff who can take care of the disable persons at the time of emergency. Likewise, in the Schools and Colleges teachers should select students to take care of the PwD students at the time of emergency.

Disability in Mamit District -

In Mamit District, there are a good number of disabled persons. These persons do not belong to the same place. They live in different villages and hamlets. As per

2011 Census, out of the total population of 86364, the total disabled population within Mamit District is as below:-

1) Seeing	-	207
2) Hearing	-	299
3) Speech	-	102
4) Movement	-	198
5) Mental Retardation	-	111
6) Mental illness	-	64
Total	**-**	**981**

It is clear from the above facts that people who are disabled in hearing constituted the majority of the disabled population within Mamit District, which should be noted when it comes to disaster management planning.

The Adventure Club, Search and Rescue Team, YMA and other voluntary organizations within Mamit District need to have special training for evacuating this group. It is better to provide safety helmet for disabled person in their work place, home, and school for preparation in eventually of an earthquake.

Steps for disaster risk reduction for Persons with Disability (PWD) within Mamit District -

1) Structural changes:-
   a) Building ramp with railings on all public buildings.
   b) Putting holders at convenient places, levelling all important areas and removing obstacles so that wheelchair can move about unhindered.
   c) Seeking adaptable ways of making structures and tools usable for all.

2) Inclusion of organizations and institutions working with PWD in the planning process. To this effect, SSA, RMSA and Social Welfare Department must be sincerely included.

3) Bringing institutions and organizations connected with persons with disability together with mainstream emergency organizations to increase awareness and making future collaborations possible.

4) Specially train volunteers and emergency teams for dealing with PwD.

5) Sensitizing people and aware the presence of PwD around them, at schools, offices, hospitals, etc., and the whole community as well.

6) Make PWD themselves contributors of planning process. Encourage meaningful participation of persons with disabilities within disaster response framework.

7) Finding most efficient and accessible method to train PWD.

8) Raise visibility profile of CBM among stakeholders for emergency response and disaster risk reduction.
9) Training their caregivers and guardians to make them understand their capacities

and limitations to enable them to take appropriate and relevant actions.

10) Raise awareness on Disability Inclusive Emergency Response to public.

11) Raise awareness on disability and emergency response among rescue operation teams.

12) Disability inclusive early warning and evacuation assistance-early warning mechanism and priority evacuation assistance be adapted to make sure they equally reached PWDs. For example, for person with hearing impairment, visual signals or non-verbal message are to be made as a warning signal.

13) Facilitating data on disability during disaster to locate them and rehabilitate them in the aftermath of disaster.

Most importantly, it should be remembered and realized that person with disabilities are reliant upon public services and depended upon public support in times of disaster and emergency situations. It is doubtless that the entire PWD population does not locate in a single location or area of the District. They spread through different parts of the district, in towns, villages and even in hamlets. For this very reasons, every Sub-Divisional and Village Level Disaster Management Committee must make their own plan for disability by following the above guidelines and enforced them wherever applicable.

4.5 LIVESTOCK MANAGEMENT DURING DISASTER

Different disasters have similar consequences on the health and welfare of livestock. Disaster that affect animals can, therefore, also affect the infrastructure of a Country, thereby hindering the distribution of food and goods and in addition, reducing, an important source of employment, revenue and wealth in the country. Disaster relief for the care of livestock should be recognized as a form of humanitarian assistance, given the benefits to be derived for public health and the socio-economic implications of successful intervention.

Livestock Populations in Mamit District -

In Mamit District, the animals of prime economic importance are cow, buffaloes, goat, pigs and poultry. These animals are essential as a source of wealth, food, power for work and transportation. The Principal issues that arise in disaster situations in the district are a shortage of food for human population, spoilage of food and loss of employment in the agricultural sector.

These livestock animals are living in different regions/areas with different climatic conditions. It may be difficult during disaster to locate them easily and rehabilitate them to the safety places.

Before Disaster strikes -

In Mamit District, disaster typically occurs from wildfire, flood, cyclone, drought, etc. First determine if livestock are in an area which is prone to a specific disaster type. For example, living near a flood plain increases the chance of flooding

and living in a wooded, mountainous region increase the chance of wildfire. Next, learn which factors (e.g. climate) accelerate these risks into an actual disaster. There are links between risk and occurrence. Disaster preparedness begins with awareness but require vigilance and planning. Since the safety of an individual and its family are the top priority, livestock care must come after human needs are addressed. Preparing a disaster box for livestock still has great merit. Recommended items for a livestock disaster box include:-

1) Track, ropes, halters.
2) Concentrated food, hay, supplements, and medicines.
3) Copies of ownership papers.
4) Buckets or feed nets.
5) Livestock first aid supplies.
6) Garden hose.
7) Lights, portable radio, and spare batteries.

Additional Recommendations for livestock before disaster occur -

1) Learn what disaster risks are prominent in your area and what conditions accelerate that occurrence.
2) Contact local law enforcement and emergency response agencies and familiarize yourself with their response patterns, criteria and capability.
3) Visit with neighbours or local groups about organizing a management or evacuation system for livestock.
4) Make sure you have legal and adequate markings to prove ownership of your livestock. Refer to state and local laws for legal requirements.
5) Practice loading your animals so that you and the animals are familiar with the effort.
6) Utilize cell phone technology to monitor neighbours, families and livestock.

Quick Facts -

1) Livestock can sense some impending disasters before humans recognize a threat.
2) Animals and owners can benefit from disaster drills.
3) Disaster preparedness can lessen the impacts for you and your livestock.

Caring for livestock after Disaster -

When dealing with livestock during emergencies, it is critical to re-establish your priorities. The first priority should be your personal safety and welfare of other people, and finally animals and property. If you are safe, you can do more to benefit animals if you are at risk, so is their welfare and health.

1) ***Seek and Own:*** The first logical step in caring for livestock and other animals is locate, control and provide for those animals locating animals after it is limited by transportation blockages from the disaster because normal routes may not be available. Your local emergency manager, usually found at an established incident command post, may have alternatives. If the emergency manager is difficult to find, contact local law enforcement for information. As you re-enter a disaster area, remember hazards may still occur, including:-

- downed power lines.

- flooded areas.
- unstable roads and highways.
- gas and utility leaks.
- debris and wreckage.
- vandals and looters.

Leave an itinerary of your search plan with local authorities and family members. Travel slowly, be alert for hazards, and do not enter unsecured areas. Take identification and livestock ownership documents with you as you search. Official emergency responders often evacuate animals, so check with authorities to see if your livestock has been moved to holding facility before you enter the disaster zone.

2) ***Sensitivity:*** Animals are like people in that they are emotionally affected by disasters. Often violent impacts of disaster disorient and temporarily alter the behavioural state of livestock. When, and if, you locate your animals, realize that they may be upset, confused and agitated. They need help finding their normal behavioural pattern. Here are some proven techniques for doing this:-

1) Handle livestock quietly, calmly and in a manner they are familiar.
2) Wear clothing and use vehicles that are familiar to them.
3) If possible, keep or reunite familiar animals groups with each other.
4) As soon as possible, place them in familiar settings or one which is quiet, calm and insulated from additional stimuli.
5) Soft music and familiar sounds may help calm livestock.
6) If possible, clean the animals (i.e. wipe out their eyes, mouths, and nostrils).
7) If possible, move animals away from the residue of the disaster.
8) Treat wounds of injured animals so their comfort level improves.

Conclusion -

Animals and livestock often relate security to the familiarity of their surroundings. In some cases, you may be able to return them to familiar surroundings and enhance their recovery. Unfortunately, a disaster often impacts the familiar surroundings altering the landscape‘s character, feel smell, look and layout. To enhance the animal‘s comfort level, find another place with similar characteristics. Move the livestock there until you can remedy the damage. Feed and water are a big part in livestock disaster recovery. In addition to the health and nutrient aspects of appropriate feed and water, livestock can become very picky to eat and drink if their feed and water do not smell and taste familiar. This nervousness is usually greater during and after disasters.

4.6 HAILSTORM

Hail is one of the most common and costly weather hazards in Mizoram, causing a severe damage to buildings, vehicles and crops every year. Hail is possible within most thunderstorms as it is produced by cumulonimbi and within 2 nautical miles of the parent storm. Hail formation requires environments of strong, upward motion of air with the parent thunderstorm and lowered heights of the freezing level.

Meaning -

Hail is a form of solid precipitation. It is distinct from sleet, though the two are often confused for one another. It consists of balls or irregular lumps of ice, each of which is called hailstone. Sleet falls generally in cold weather while hail growth is greatly inhibited at cold temperatures.

Hazard, Risk, Vulnerability Analysis -

Hailstorm usually occurs during the period from March to May in Mamit District. As most of residential buildings as well as public buildings such as schools, especially in rural areas are roofed with thin sheets of GCI or aluminium, even a minor cyclone and hailstorm can cause devastating damages. Hail can cause serious damage, notably to automobiles, aircrafts, glass-roofed structures, livestock, and most commonly farmers'crops.

From the above, it can be studied that usually old and corroded tin-roofed houses were damaged by hailstorm while other types of houses were not much affected.

Hailstorm Prone areas in Mamit District -

It is difficult to identify hailstorm prone areas in Mamit District. All villages and regions can be vulnerable to hailstorm. But the recent incident revealed that the Western areas, Tripura-Bangladesh border areas are much more vulnerable from the rest of the regions.

Hailstorm safety plans -

A. Make a plan: A hailstorm can disrupt electrical service and is often accompanied by other severe weather events. Prepare family for the hazards and inconveniences of a hailstorm by creating a disaster preparedness plan, including a first-aid kit and an emergency evacuation plan.

B. Stay informed: Hail often occurs during severe weather patterns such as strong thunderstorms, when severe weather threatens, tune in to a battery powered radio for updates. A severe thunderstorm watch means that conditions are right for thunderstorms to become severe. A severe thunderstorm warning means that a storm poses an immediate threat to the people and property in its path. This warning may be accompanied by a siren or other community alert system.

C. Move inside, stay inside: Hailstones vary greatly in size, but even small ones-driven by gravity and strong winds-pose a danger to anything or anyone caught in a storm. As a storm approaches put vehicles in the garage and bring pets inside, if you are outdoors, go indoor immediately, close all drapes or shades to prevent broken window glass and hailstones from entering your home.

D. Protect your roof: Roof damage is a common consequence of hailstorms. Following a strong storm, you should evaluate the condition of your roof to identify any damage and prevent further deterioration.

E. Do not use electronics: Often hail is part of a severe storm which likely includes lightning.

4.7 COLD WAVE

A cold wave is a weather phenomenon that is distinguished by dramatic and intense cooling of the air. It is a rapid fall in temperature within a 24 hrs. period requiring substantially increased protection to agriculture, industry, commerce and social activities. The precise criterion for a cold wave is determined by the rate at which the temperature falls, and the minimum to which it falls. The minimum temperature is dependent on the geographical region and season.

Hazard and Vulnerability Assessment -

Mamit District lying in the North-West region of the State does not experienced severe cold wave as compared to other regions of the country. Like other Districts in the State, the low temperature is usually experienced during winter season, i.e., from *November-January* causing some problems to people, animals and crops but is more or less within coping capacity. There is no report of human casualty in the district due to cold wave till today. It is difficult to identify cold wave prone areas in the district. Nevertheless, people living in the outlying bordering areas, settling in difficult terrain with low accessibility are most vulnerable when it comes to outburst of persistent cold waves. The present global problem i.e. global warming, cause fluctuation in temperature which is a potential danger to the existence of cold wave in the District. No much problem can be mentioned regarding cold wave in respect of Mamit District.

Effects -

A cold wave can have devastating effect on livestock and wildlife, which have a resultant effect on humans. Exposure to cold mandates greater calorie intake for all animals, including humans and if a cold wave is accompanied by heavy and persistent snow, grazing animals maybe unable to reach much needed food and may die of hypothermia or starvation. Moreover, food supply for cattle and livestock is greatly reduced on the set of persistent cold waves. It often necessitates the purchase of food stuffs at considerable cost to farmers to feed livestock.

Extreme winter cold often causes poorly insulated water pipelines to freeze. Even some poorly protected indoor plumbing ruptures as material contracts, causing much damage to property and costly insurance claims. Motor vehicles may fail as anti-freeze fails and motor oil gels, resulting accident or failure of the transportation system.

Fires become even more a hazard during extreme cold. Water mainlines may break and water supplies may become unreliable, making firefighting more difficult.

Counter measures -

People can stock up on food, water, and other necessities before a cold wave. Some may even choose to migrate to places of milder climates, at least during the winter.

- Suitable stocks of forage can be kept before cold waves for livestock
- Vulnerable crops may be sprayed with water that will paradoxically protect the plants by freezing and absorbing the cold from surrounding air.
- They can also stock candles, matches, flashlights, and portable fuel for cooking and wood for fireplaces or wood stoves, as necessary. However, caution should

be taken as the use of charcoal fires for cooking or heating within an enclosed dwelling is extremely dangerous due to carbon monoxide poisoning. Adults must remain aware of the exposure that children and the elderly have to cold.

- Hospitals can prepare for the admission of victims of frostbite and hypothermia; schools and other public building can be converted into shelters.

4.8 PEST ATTACKS

Cockroaches, fleas, mice, rats, spiders and other nasty creepy crawlies are all pests that usually cause damage in Mamit District. Mautam causing a sudden boom in the rat population that occurs every 48 years in Mizoram creates a widespread famine in Mizoram. This Mautam is the biggest experience of pest attack in Mamit District.

A pest is an organism with characteristics that people see as damaging or unwanted, as it harms agriculture through feeding on crops or parasitizing livestock. An animal can also be a pest when it causes damage to a wild ecosystem or carries germs. The term pest is used to refer specifically to harmful animals but it also relates to all other harmful organisms, including fungi and viruses. It is possible for an animal to be a pest in one setting but beneficial or domesticated in another. Many weeds (plant pests) are also seen as useful under certain conditions.

Crops need to be protected from a variety of different pest, organisms that present threat to the crop. While we often think of pests as insects, a pest can also be a weed, a disease of an animal or even bacteria.

Effects -

Pest and diseases have a direct impact on agricultural productions through reduce yield of crop plants which reduces the farm income. The impacts of reduced productivity on crops or animals can be long-lasting. Pest infestations can impair fertilization rates or seed recovery, while pesticide applications can harm soil and water fertility. Diseases can have lasting effects on livestock output in a number of hidden ways (such as delays in reproduction, leading to fewer offspring and the consequences of a reduced population which often exceed the losses associated with clearly visible illness.

Remedial measures -

Integrated Pest Management (IPM) has proved to be the most effective in controlling pest population. IPM is the selection and use of pest control actions that will ensure favourable economic, ecological and social consequences and is applicable to most agriculture, public health and amenity pest management situations.

The IPM process starts with monitoring, which includes inspection and identification, followed by the establishment of economic injury levels. The economic injury levels set the economic threshold level. That is the point when pest damage (and the benefits of treating the pest) exceeds the cost of treatment. This can also be an action threshold level for determining an unacceptable level that is not tied to economic injury. Action thresholds are more common in structural pest management and economic injury levels in classic agricultural pest management.

Once a threshold has been crossed by the pest population, necessary action has to be taken to reduce and control the pest. IPM employ a variety of actions

including cultural controls, physical barriers, biological controls, adding and conserving natural predators and enemies to the pest, and finally chemical controls or pesticides. Even though the pesticides and insecticides used in organic farming and organic gardening are generally safer than synthetic pesticides, they are not always safer for the environment than synthetic pesticides and can cause harm. For conventional farms IPM can reduce human and environmental exposure to hazardous chemicals, and potentially lower overall costs.

4.9 DROUGHT

Drought is a natural hazard that differs from other hazards since it has a slow on-set, evolves over months or even years, affects a large spatial extent, and cause little structural damage. Its on-set and end and severity are often difficult to determine, like other hazards. The impact of drought span economic, environmental and social sectors. It can be reduced through mitigation and preparedness. As drought are part of climate variability for almost all regions, it is important to develop appropriate and systematic plans to deal with it.

Drought is not only scarcity or the absence of rain fall, but also related to inefficient water resource management. Requirements of over 8090% of the drinking water and over 50% for irrigation are met from ground water. Thus, the control of ground water is

Drought risk -

Drought vulnerability is a product of region‘s risk of water shortage and exposure of the communities to the problems arising there after. If nations and regions are to make progress in reducing the serious consequences of drought, they must improve their understanding of the hazard and the factors that influence vulnerability.

Prevention and Preparedness -

It means pre-disaster activities designed to increase the level of readiness and improvement of operational and institutional capabilities for responding to a drought. It involves water supply augmentation and conservation (i.e. rain water harvesting techniques) expansion of irrigation facilities, effective dealing with drought and public awareness and education, transport and communication links are a must to ensure supply of food and other commodities during and just after a drought. Successful drought management requires community awareness on the mitigation strategies, insurance schemes for farmers, crops contingency plans etc.

Drought in Mamit District -

Mamit District is not much affected by Drought as compare to other regions in the Country. The District receives ample amount of rainfall during the monsoon season. The study of available rainfall data reveals that generally the heavy rainfall starts from the 2nd part of May and usually ends in the 1st part of October. The average rainfall of Mamit District during 2014 is 1817.1 mm. Precipitation is heavy during summer with May, June and August the rainiest months.

Preventive measures of drought -

1) Develop irrigation facilities by building dams.
2) We should indulge in rain water harvesting.
3) Save water to prevent drought.
4) Growing drought resistant crops like millets, maize and sorghum.
5) Build a canal to divert water.
6) Store water for future generations.
7) Put more wells and tube wells.
8) Store water when get a good rainfall.

4.10 FOREST FIRE AND HOUSE FIRE

In Mamit District, forest fires occurred as an annual feature which coincides with the jhum burning season. The loss sustained due to fire hazard is immense and irreparable, influencing the flow of surface soil during monsoon and are the root cause for landslides and floods. Forest fire totally eliminated the woody vegetations with grasses or bamboo as a secondary growth on abandoned jhum land. The steep slopes bereft of vegetation only accelerate the spread of fire due to smooth surface without barriers of shrubs and trees. However, forests are of paramount importance to the people of the District as it provides food, shelter and water. Dependence on forests by the people has been inherited since ages and will continue so.

Other than forest fire, House Fire also occurred every year in the District caused by electric short circuit and other reasons which cannot be definitely point out.

Main causes of forest fire -

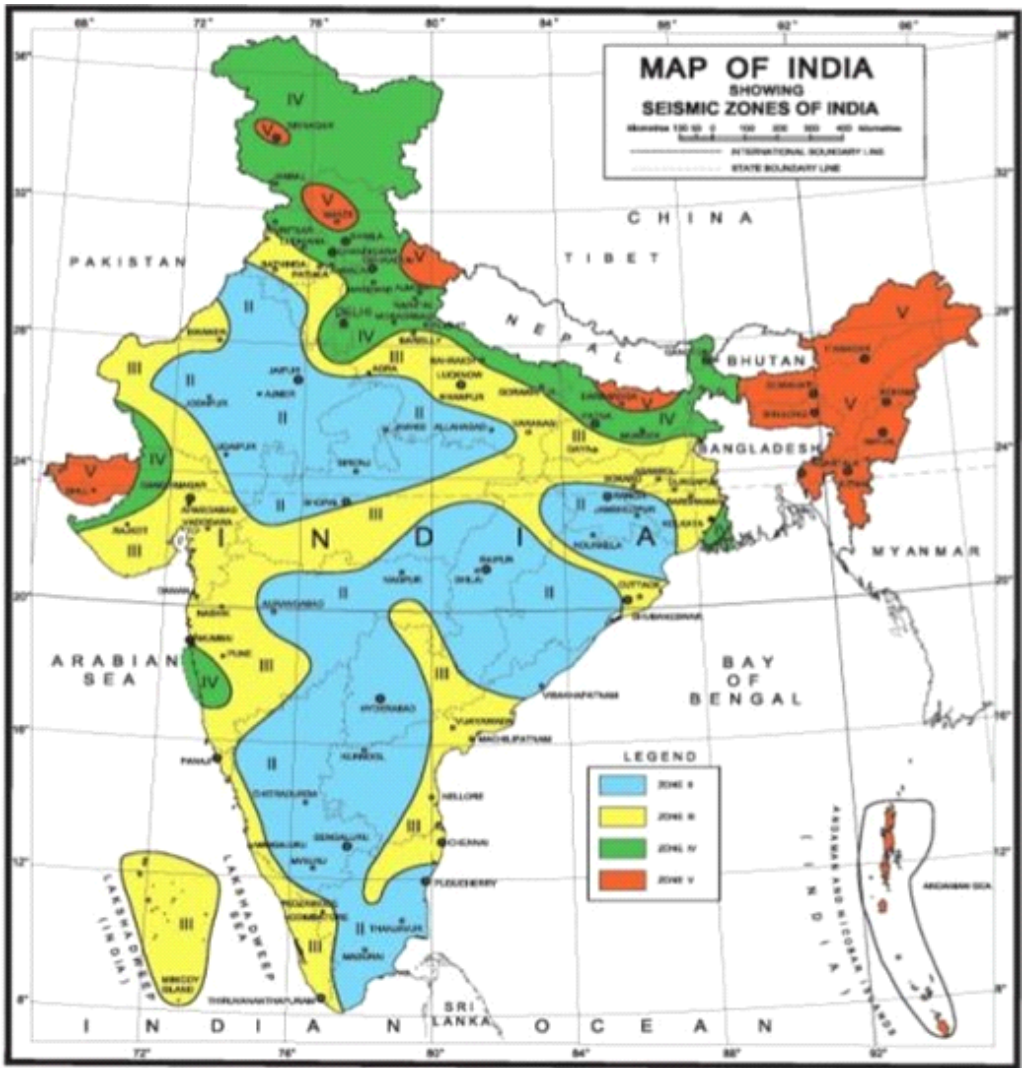
Man-made Fires:-

1) During jhum burning highly inflammable bamboo flakes and kindling charcoal makes way through wind velocity to adjoining area and sets fire to dry grass and leaf litter. Neglect on the part of the farmers to extinguish and control the fire flames causes the spread of fire outside the jhum lands.
2) Non clearance of safety zone around the jhum land before the commencement of jhum burning.
3) Carelessness to put off the fire during the annual road side clearing spreads fire into the adjoining forests and plantations.
4) Usually the graziers in order to obtain new flush of grass burn the forest floor intentionally and such repeated burning in the same locality ultimately eliminates the woody plants and even the palatable grasses, thus decreasing the forest value by declining productivity of fodder.
5) Neglect in extinguishing charcoal kilns inside clear forests.
6) Burning the forest floor by the hunters to obtain clear visibility of wild- animals.
7) Carelessness in control of burning operation during site preparation and annual fire-line tracing.
8) Burning cigarettes stub by passer-by is sufficient to ignite the grass and leafy matter during summer.
9) Wood gatherers and wood cutters also cause fire damage due to carelessness.

4.11 EARTHQUAKE

Earthquakes are the most feared natural hazards, as they occur without any recognizable warning and are unpredictable in space and time and inflict heavy losses in less than a minute duration. Earthquake prediction is not yet scientifically possible with reasonable accuracy in terms of location, time and magnitude. The only tangible effort which can be done is to mobilize relieve and rescue operations immediately so as to minimize damage to life and property. Earthquake caused widespread disaster and loss of human lives primarily due to the collapse of structures and buildings.

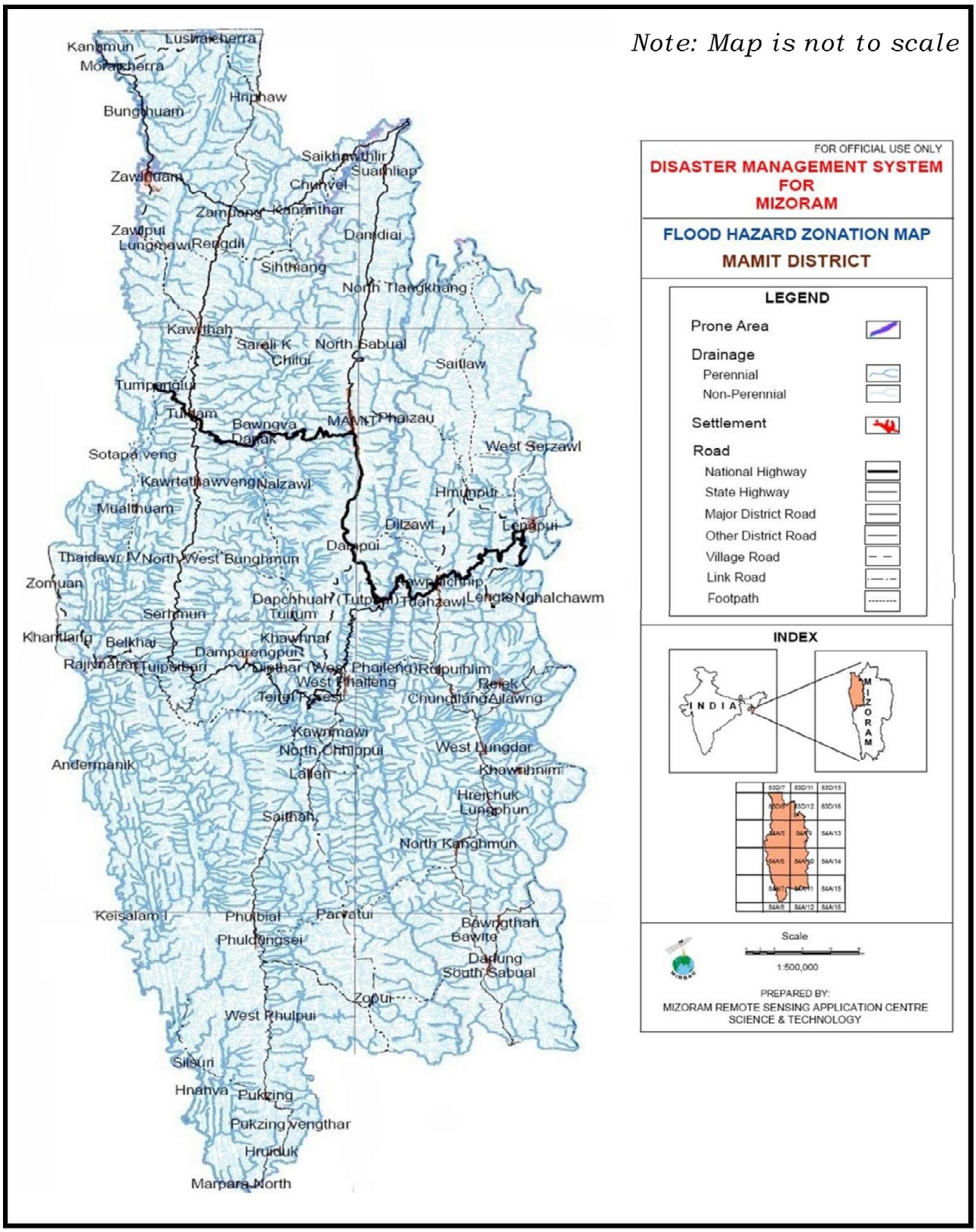
Mizoram falls under Seismic Zone V of Very High Damage Risk Zone. An earthquake of magnitude of 7.5 and above on the Richter scale could occur in Mizoram. Accordingly, major earthquake occurs at intervals ranging from 35-40 years. The last major earthquake occurred in the North East was in the year 1950. As such, a major earthquake can be expected in the NE India any time soon. Even though the State is in Seismic Zone V, we do not yet have any specific guidelines, rules, regulations or bye-laws for earthquake risk reduction and mitigation.



(Source: IS 1893: 2016 – Part1)

4.12 FLOOD

There are rivers and streams such as Tut, Tlawng, Langkaih, Khawthlang Tuipui, Mar and Teirei within Mamit District which can cause floods/flash floods resulting into the damage of cultivated lands and fish ponds and even houses. The District flood hazard zonation map is given below.



CHAPTER 5

DISASTER MITIGATION AND CONTINGENCY PLAN

5.1 DISASTER

Disasters are combined result of hazards and vulnerabilities. They occur when the adjustment capacity of the affected communities and individuals exceeds their ability to cope with crisis. It is an extreme state of everyday life in which the continuity of community structures disrupts temporarily but trailing behind it a long-term infrastructure, economic development to maintain normalcy for years together.

*** Types of Disasters**: *(As per past experience in the District)*

Natural Disaster	**Man Made Disasters**
Earthquake	**House Fire**
Landslides	**Road Accident**
Cyclone (Thlipui)	**Illicit Liquor Consumption**
High Speed Wind	**Spurious Liquor Consumption**
Hailstorm	**Forest Fire**
Droughts	
Bamboo Flowering & Famine (Mautam)	
Floods	
Cloudburst	

5.2 OPTIMUM STRATEGY

Optimum strategy of Mitigation Plan by a District Disaster Management Plan is to minimize loss of life and property. Officials from District Administration, Public, NGO's, Civil Defense, and interest groups are monitored to stand in interaction with a view to play a major role in
Disaster Mitigation. Broadly it has been divided into three major strategies:-

- Pre-Disaster
- During Disaster
- Post Disaster

Pre-disaster (i.e. Preparedness in "No-Disaster Situation):-

1) Formulation of District Disaster Management Committee
2) Formation of District Disaster Management Plan for the current year
3) Hazard Analysis & Resource Inventory
4) Allocation of responsibilities to the individuals/group/institutions/ organizations/voluntaries
5) Broadly defining the responsibilities and operational functions
6) Information Education Communication (IEC) Programme
7) Training and Capacity Building Logistic arrangement-Safe shelters (immediate/ permanent), Food items like Rice, Chura & Biscuits, Drinking water, Medical facilities, clothing, Other essential commodities, Communication network like wireless system/VHF, HAM-Radio, VSAT, Light vehicle, Fire Brigades, Bull Dozers etc.
8) Check Memo.

During disaster:-

1) Functioning of District Control Room (DCR) & other Sub-Divisional/Block Administrative Center/Line Departmental Control Rooms
2) Dissemination of warning /information
3) Coordination meeting with officials at District Control Room in each 12 hours to monitor the situation
4) Alerting CMO/Line Department/Field Official to remain ready to gear up into action immediately after abetment of crisis.
5) Immediate freezing of reasonable POL stock with different petrol pumps
6) Rescue operation/evacuation by teams (already identified) providing infrastructural facility and movement to rescue centers
7) Management of rescue shelters-Relief camp
8) Monitoring Disaster Management by ensuring a line of Control through Police & Paramilitary forces, Fire Services, Civilians, NGOs and Essential Service Departments by District Collector
9) Daily stock of the situation by District Magistrate and Addl. District Magistrate
10) Administration of relief operations 11) Preparation of Daily situation report.

Post disaster:-

1) Assessment and enumeration of damage
2) Distribution of relief/Emergent reliefs as per the provision of ORC
3) Monitoring Relief Operation organized by outside agencies/UN Agencies/Red Cross/NGOs/PSUs/others states etc through District Administration
4) Restoration of communication-roads & bridges, Electronic communication system
5) Immediate arrangement of free kitchen in the cut-off/shelter camps and inaccessible areas
6) Ensuring transportation of relief materials to affected areas
7) Ensuring safeguarding of belongings of the evacuees
8) Maintenance of Law and Order
9) Ensuring safe availability of drinking water
10) Provision of Medical facilities and Minimum sanitation

11) Removal of debris and disposal of carcasses
12) Helping the evacuees to return to their homes
13) Special care to Children, Lactating Mothers, Old & infirm
14) Meeting Officers of both District level and Field level in every 24 hours to take stock of the situation
15) Collection information by a core group of DCR and submission of daily situation report to Govt. through District Collector
16) Keeping liaison with field and state Govt. and interaction.
17) Documentation of the entire event-Black & White/Audio & Video
18) Check Memo.

1.2.1 Mitigation Measures

Mitigation measures are very important as they reduce the impact of hazards if not eliminate them. Disaster mitigation is several types and could be broadly classified into structural and non-structural measures. Structural measures are undertaken to strengthen weak existing buildings, life lines and infrastructure such as strengthening of weak existing building and reinforcing water and electricity supply lines. Non-structural measures, on the other hand, emphasize on proper hand-use planning sustaining awareness and discrimination of information on DOs and DON'Ts at the time of disaster.

1) Structural mitigation measures:

Most of the buildings in Mamit District are non-engineered and Kutcha and will have low seismic resistant capacity. These buildings are liable to get damage even at low intensity earthquake and cyclonic storm. A detailed assessment of buildings, which are vulnerable and may cause loss of life should be made giving public buildings like Hospitals, Community Halls, Churches, Schools and colleges first priority as they are lesser in number and are the place where people shelter during a disaster. Second priority will be given to other types of buildings like houses, hotels, offices, godowns and factories.

2) Non-structural measures*:*

Non-structural Measures use knowledge, practice or agreement to reduce risks and impacts, in particular through policies and laws, public awareness raising, training and education.

a) Land-Use Planning: This includes:-

(i) which area should be spared for human settlement, agriculture, forestation, etc.
(ii) hazard zoning of areas.
(iii) areas where new roads and infrastructure should be avoided

***b) Building Improvement Programme*:** Buildings should be improved in terms of making them earthquake resistant. The rapid urbanization is leading to an increase in housing and buildings and is primarily responsible for damage and loss of lives, it is extremely important to have a systematic building bye-laws which is, now-a-days, not imposed in the whole of Mizoram. Also, as man-made features and systems are responsible for devastation, the loss can be minimized by selecting safe place

for construction of buildings and retrofitting of building structure. This can be done by decentralizing infrastructure and facilities.

c) Mitigation Measures in Mamit District: The District has not been hit by a major earthquake in recent history. The building techniques adopted in the District also do not conform to safety as well as standards of quality. Actually, there are no rules, regulations or bye-laws to ensure that any form of construction abided by guidelines and pre-set standards. This increased the risks as well as hazard factors should any disaster occur in Mamit District. The older tradition kutcha houses and Assam type houses are mainly made up of timber and asbestos components. The District being located in the hilly region, these buildings may not be able to withstand strong tremors strong winds. And, roof top rain water harvesting and side drain construction is a must especially during rainy season to reduce landslide.

d) Damage Assessment: Damage, in the event of an earthquake, is concentrated to buildings and damage to buildings is caused by such factors like building configuration, structural elements, earthquake severity and construction materials used. A rapid damage assessment should be made to examine extent of damage for mobilization of rescue and relief activities. Here, demographic details must be entered in inventory and behaviour of buildings at the time of earthquake must be carefully studied. Apart from concerned departments and governments agencies, local persons having good knowledge of the locality should be associated. Rapid Damage Assessment leads to the second phase known as building safety evaluation where buildings are identified under various damage grades. Finally, Detailed Damage Assessment has to be made. This assessment is made at the recovery stage and requires skilled personnel of engineering background. The aims of this assessment are:-

(i) To estimate the detailed building damage;
(ii) To estimate economical and financial aspect of damage;
(iii) To propose retrofitting for re-strengthening.

Replacement of destroyed buildings and infrastructure and the reconstruction of damaged communities should strive to make the new community safe against the repetition of the disaster in future. In the aftermath of an earthquake, the replacement of large section of cities and town and the rehabilitation of a major section of the community gives or creates the opportunity to bring changes that will reduce the impact of the next earthquake.

5.3 LANDSLIDE

The first step for landslide hazard mitigation is the identification of zones prone to mass movements.

Recommendation for preventive and remedial measures of landslide-

1) The principal cause of initiation and acceleration of slope failure in water as is evident from the fact that most of the major landslides in Mizoram had occurred following heavy rains. The physio-chemical nature of the dominant lithology (viz. clay-shale) is responsible for absorption of huge amount of water, thus, increasing the pore water pressure in the loose materials on the slopes resulting in reduction of inherent strength of these materials. This is compounded by disturbance of these

slopes by excavation for road construction, rock quarrying and building foundations. Thus prevention of water seepage into hill slopes and quick discharge of surface run-of is of paramount importance. The following measures are recommended to achieve this:-

a) Measures for channelizing run-off, especially during monsoon by providing better surficial drainage system, road-side drains, feeder, drains, contour drain trench drains, chutes, culverts, etc. at appropriate areas and locations.
b) Proper maintenance of rooftop water during rainy season.
c) Monitoring the tension cracks on vulnerable slopes, especially above the existing slides and sealing them by appropriate methods to reduce seepage of water into them.
2) Provision of various retaining structures such as breast wall, retaining wall, toe-wall, parapet wall, etc. to restore the stability of the hill slopes which are already under threat.
3) Provision of vegetation cover on the slopes to reduce erosion of exposed slopes by rain and flowing water. This may include plantation of grass and fast spouting bush.
4) Since road construction is an essential development activity especially in hilly and inaccessible regions, it cannot be stopped or reduced even though such activities trigger landslides. But it is necessary to take care not to disturb the slopes too much. The slopes both above and below the road cutting should be modified to increase stability. Common methods of increasing slope stability are grading (construction of benches), reduction of load at the head and enlargement of toes. In addition at the locations where indications of slopes failures are evident retaining structures should be constructed.
5) Construction of multi-storied buildings or heavy structures on hill slopes must be discouraged. Even for small buildings and houses, the foundation should be on the bed-rock rather than on the loose overburden.
6) Where the headword erosion of stream is active on slopes, the natural drainage in the upslope should be modified in such a way that the surface flow of water is diverted away to prevent it from entering these streams.
7) Where two erosions by streams cause instability of the slopes by under cutting, diversion structures may be constructed to divert the stream flow.
8) Stone quarrying along road sides and dumping of debris on, slopes should be curtailed.
9) People should be educated on the sensitivity of the slopes so that they take proper care while constructing houses, in leaving drainage water on the slopes and avoid excavation activities along slopes.

5.4 CYCLONE

A. Before Cyclone -

- District Administration should ensure wide publicity of cyclone warnings through local mass media including AIR and DDK.
- District Administration should review and co-ordinates regularly the measures necessary to face cyclone threat.
- The Collector should ensure:-

i) That sufficient stock of food grains, kerosene and other dry food commodities are available for distribution to the victims.

ii) That Medical and Veterinary Departments are fully equipped with required Drugs and Vaccines for taking preventive steps after cyclone and to arrest the spread of epidemics.
iii) That all the Government vehicles are kept in road-worthy condition for putting them to use in the emergency.
iv) That a list of generators available is maintained for use when necessity arises.
v) That action is taken for opening of cyclone stores for providing the following materials:-
    - Hooks of type available with Fire Service Dept. for cleaning debris.
    - Rubber tyres and tubes for using as floats in water.
    - Large cooking vessels for use in relief camps.
    - Identify slips to be issued to be victims in relief camps.
    - Tents, kerosene lanterns, copies of maps, ropes, wires, chanins, lights, with wire fittings, lead wires, torches, etc.
    - Spare Road Market Stores, Steel poles, Bamboos, G.C. Sheets, and Slotted Stripes of metal (to be laid on churned up road surface for better transportation).
    - Double handle saws (for cutting fallen trees), Shovels, Candles, Land Hailers, Hose pipes, first aid kits, cyclone duty sign Boards, Asbestos, Sheets, Detty, cans, empty oil drums, gunny bags and sand bags, polythene bags, (for dropping supplies), buckets, Very High Frequency (VHF) sets with batteries for use.

B. DOs and DON'Ts before, during and after a cyclone (For individual/people)

DOs (For Public) -

a. Check your house, repairs doors and windows, wherever necessary.
b. Keep a hurricane lantern filled with kerosene, flashlight, matchboxes, candles and enough dry cells.
c. Make sure that your radio set is fully serviceable' Keep an extra set of batteries ready for transistor.
d. Keep your radio set on, and listen to the latest weather warnings and advise from the nearest AIR station. Pass the information to the other (by word of mouth).
e. Do not venture into the areas where streams or rivers flow high as it may surge due to heavy rains.
f. Bolt up glass window and out shutters in place.
g. Get extra food stored, particularly that type which does not require cooking. Store extra drinking water.
h. When you are moving to a shelter move your valuable articles to upper floors or tie it to the roof so that these would not be submerged.
i. Make provisions for children and old people requiring special diets.
j. Be calm. Your ability to meet emergency will inspire and help others.
k. Stay in the shelter, as long as you are informed to do so.
l. While in the shelter, follow the instructions of personnel in-charge.

DON'Ts (For Public) -

a. Do not keep loose objects like canes, tins and other equipments. They may become weapons of destruction during strong winds.

b. Do not spread rumours, not listen to them, only official version of the warnings may be listened to through radio.
c. Do not stay in your house, when advised to vacate by authorities, especially when your house is located in a low-lying area. You may run the risk of being marooned.
d. Do not venture out, if the weather suddenly clears during a storm as indicated by a lull in the wind and rain. Remember strong wind will return equally suddenly from the opposite direction with even greater velocity. This happen when the eye of the storm passes over your area.
e. Avoid any loose wires hanging from poles to avoid electrocution.
f. Drink only safe water.

5.5 DROUGHT

Followings are the important measures for the mitigation of drought:-

1) Look for a pattern occurring in the past-when drought has occurred in the district, what was the intensity, and which are the affected areas in the District.
2) Refer those reports, act on the lesson from the past.
3) If the District is drought prone, keep the reservoirs, dams, water, harvesting structures, etc. filled up with available water. Teach the people not to waste.
4) Make the department/agency concerned responsible to do drought proofing and effectively monitor.
5) Release of water for irrigation and drinking to be done economically and to reduce transmission loss.
6) Drinking water should get precedence over agriculture.
7) If ground water is the source of drinking water-hire/requisition from the ground water department/private-rigs and engage in digging more bore wells.
8) If the water supply is from reservoirs, regulate supply to enable it last till the monsoon comes.
9) Launch awareness drive, build on traditional practice for economic use of water.
10) Make use of the media and spread the message of Do's and Don'ts by the community.
11) Repair, maintenance and improvement of irrigation and water supply schemes, tanks, hand pumps, dug wells, tube wells, bore wells, and planning for water harvesting structures to be done well in advance.

Contingency planning for agriculture -

1) Crop life saving measures.
2) The alternative cropping strategy.
3) Compensatory Cropping Programme.
4) Supply of Inputs.
5) Provision for irrigation.
6) Supply of Power.

Drinking water -

1) A detailed contingency plan for supply of drinking water in rural areas to be formulated with technical help from the Central Ground Water Board (CGWB) and utilizing if need be, the rigs and other capital equipment from the CGWB.

2) Made adequate plans to supply drinking water in urban areas through bores, tankers and other suitable measures.
3) Monitor continuously rural and urban drinking water availability in drought affected areas.

Water resources -

1) Prepare a water budget for each irrigation reservoir covering drinking water, kharif and rabi requirements and evaporation losses, after working cut a trade-off between kharif and rabi benefits from the available water.
2) Undertake repairs of tube wells to make all tube wells operational and install additional tube wells taking care at the same time to prevent overexploitation of and damage to ground water regime.
3) Regulate supply to water-intensive industries, if necessary.
4) Minimize evaporation losses in tanks and small reservoirs by using chemical subject to Health clearance.

Employment generation -

1) Adequate scarcity relief works to be taken up to generate the required employment.
2) The funds available under MNREGS should be dovetailed and integrated.
3) Shelf of projects should be kept ready to be taken up for employment generation during drought.

Public health -

1) Disinfect drinking water sources to prevent the spread of water-borne diseases.
2) Draw up plans to cope with likely epidemics.
3) Constant surveillance of public health measures including immunization to be undertaken.

Women and children –

The nutritional requirements of all the children, expectant mothers and nursing mothers should be taken care of.

Fodder -

1) Assess fodder requirement in drought affected districts and locate areas where shortages are likely to occur and arrange for supplies from outside.
2) Monitoring the prices of fodder in selected places/markets.
3) Arrange to procure fodder from surplus States.
4) Environment, Forest & Climate Change (EF&CC) Departments to arrange for the cutting and bailing of grasses in the forests, wherever possible to meet the demand from fodder deficit districts.
5) Fodder cultivation to be encouraged wherever feasible.
6) Ensure supply of molasses to cattle feed plants.

5.6 FIRE

Fire accidents can be of different kinds. The fire accidents mostly encountered within the district and their mitigation measures are mentioned below.

1) House fire:-

a) Proper care should be taken while lighting candle and hearth.
b) Electric wiring must be properly maintained.
c) Fire extinguisher may be kept ready in case of fire.

2) Forest Fire:-

a) Identify vulnerable forest areas prone to fire damage annually and prepare a fire damage map.
b) Prepare Fire Treatment Map based on danger ratings for various localities.
c) Clearance of fire lines by controlled burning along the highways, village roads, foot-paths, plantations, regeneration areas, protected areas and electricity transmission lines, etc.
d) Constitution of Village Fire Protection Committee, Sub-Divisional and District Level Fire Protection Committees.
e) Establishment of green belt of evergreen tree species to serve as brake for fire spread in the critical areas where fire occurs repeatedly as a part of normal afforestation programme.
f) Effective communication system for early detection of fire incidence through fire watchers and carrying out intensive patrolling during dry season.
g) Educating the graziers and villagers on the detrimental effect of fire hazard by holding public meetings, distribution of leaflets, display of banners and; awareness campaign through different media.
h) Deployment of modern firefighting device to prevent and suppress forest fire.
i) Observing Fire Prevention Week / Day to create mass awareness among the public.
j) Imparting training to staff and villagers for fire-fighting with modern equipment and capacity building.
k) Appointment of fire watchers in the village / district amongst the Ex-Servicemen or unemployed youths.
l) Strict enforcement of existing fire protection regulation Act.

5.6.1 Precautionary Measures

1) ***Fire prevention:*** Precautionary steps for prevention of fire in the forest area well in advance of the onset of dry period are inevitable. Annually fire lines are to be traced at strategic and fire prone sites such as roadsides, footpaths, forest plantations, natural vegetation areas and protected areas. The fire line tracing involves manual clearance of dry grass, leaf litter, dry branches, twigs and burning the debris to prevent spread of fire.

2) ***Fire suspension:*** At the commencement of dry season detection of fire in and around the forests and plantations need to be meticulously watched. Generally, after detection of fire, further spread of fire in the adjoining areas need to be contained by deploying modern fire control methods by using different types of cutting and scrapping tools for spreading the earth as well as spraying the water in the extreme cases.

3) ***Awareness programme:*** Prevention of fire in the forest areas could be effectively achieved by educating the public and younger generation by projecting the

detrimental effect of fire hazard to the common man. Annually, the awareness, campaign need to be commenced at the village level through NGOs, VCs, Schools and Colleges by organizing public meetings, press release through Cable TVs, AIR, Doordarshan and other publicity means. Observance of State/District-wise fire protection week/day for mass awareness and involvement of the people will be effective in fire control programme.

5.6.2 Setting up of Forest Fire Protection Committees

a) District Level Fire Protection Committee:-

Chairman	:	Deputy Commissioner, Mamit
Member Secretary	:	DFO, Mamit
Members	:	S.P., Mamit
		DLAO, Mamit
		ASO, LR&S
		Heads of Colleges and Schools
		Presidents-Sub-Hqrs YMA, MUP, MHIP
		Presidents- V/C, Branch YMA, MUP, MHIP.

b) Sub-Division/Block Level Fire Protection Committee:-

Chairman	:	SDO/BDO
Member Secretary	:	DFO/ACF/R.O., Forest
		Presidents-Branch YMA, MUP, MHIP
		Head of Schools, VCP

c) Village Level Fire Protection Committee:-

Chairman	:	VCP
Member Secretary	:	R.O/Beat Officer (if any)
Members	:	Presidents, Branch YMA, MUP, MHIP
		Head of Schools
		V/C Members & Secretary
		Church Leaders

5.7 EARTHQUAKE

What to do before an earthquake occurred:-

a. Keep in mind that most problems from a severe earthquake result from falling objects and debris (partial building collapses, ceiling plaster, light fixtures, etc.) not from ground movement.
b. Fasten shelves securely to the walls. Remove heavy objects from shelves above head level.
c. Locate beds away from the windows and heavy objects that could fall.
d. Secure appliances that could move, causing rapture of gas or electrical lines.
e. Make sure that overhead lighting fixtures are well secured to the ceiling and move heavy unstable objects away from exit routes.
f. Store breakable items such as bottle foods, glass and china in low closed calsils with latches.
g. Be aware that with a severe earthquake, all services such as electric, water, etc. will probably be down. Emergency services may also be extremely limited for few days.

h. Store chemicals and flammable objects and products securely in closed cabinets with latches or low shelves.
i. Store or have access to emergency supplies (water, long lasting, ready to-eat-food, first-aid kit, medicine, tools, portable radio, flash light, fresh batteries, blankets, warm jackets, fire extinguishers) in a secure place at your residence or in your car.

Awareness for public:-

a. Stay calm. Do not panic. Await information from official sources.
b. Most injuries occur while people enter or leave buildings, so stay where you are when the tremor occurs.
c. If you are indoors, get under a desk or a study table or brace yourself within a narrow hallway or doorway, making sure that the door cannot close on your hands. Stay away from glass, windows, and outside doors. If you are unable to move, cover your head and body with your arms, pillows, blankets, books, etc. to protect yourself from falling objects. Avoid high book cases, mirrors, cabinets or other furniture that might topple.
d. If in a multi-storied building, stay in the building in the same floor. Get under a desk or a table, stay away from outside walls and windows. Do not use elevators as power may fail. Do not run for staircase, since these may sustain more damage than level surfaces.
e. If an earthquake occurs while you are outside, get away from buildings, walls, trees and utility wires. Stay in an open area until tremors stop. You must remember that the greatest danger from debris is near exterior doorways enclosed to outer wall.
f. If driving, stop and stay inside, although tremors may occur extensively it is a fairly safe place to wait. Do not remain next to masonry structures or high-rise building. Do not remain on or under bridges and flyovers while driving.
g. Wear sturdy shoes to protect your feet from possible broken glass.
h. Check for injuries, apply first-aid. Do not attempt to move any one seriously injured.
i. Check for fire.
j. Check utilities for damage. Evacuate the building if a gas leak is suspected. Do not light matches or turn-on electricity until you are certain there are no gas leakages.
k. Avoid fallen power lines.
l. Check for structural damage, clear blocked exits.
m. Check radio and phones and listen official broadcast. Do not use the phone except for an emergency.
n. Use extreme caution when close to masonry structures.
o. Be prepared for aftershocks for several days after a severe earthquake,
p. These are common following an earthquake of high magnitude and can cause additional damage to weakened structures.

Earthquake checklist:-

1) Battery powered flashlights and lanterns
2) Battery power AM/FM radio or television

3) Spare batteries
4) Extra change of clothes
5) Sturdy shoes with thick socks
6) Matches (stored in waterproof container)
7) Fresh drinking water (3 to 5 gallons per person per day)
8) Canned food (up to 2days worth)
9) Dry/dehydrated food (up to 5days worth)
10) Can opener/knife
11) Paper plates/cup
12) Blanket, Bedding and Towels
13) Rain gear
14) Stove/Charcoal
15) Toilet Paper
16) Toothbrush and tooth paste/powder
17) Work gloves
18) Survival guide
19) List of important phone numbers
20) Small amount of cash 21) Fire Extinguishers.

5.8 FLOOD

Pre-flood arrangements:-

a. Convening a meeting of the District Level Committee on Natural Calamities;
b. Functioning of the Control Rooms;
c. Closure of past breaches in river and canal embankments and guarding of weak points;
d. Rain-recording and submission of rainfall reports;
e. Communication of gauge-readings, preparation of maps and charts;
f. Assigning charge of flood Circles;
g. Dissemination of weather reports and flood bulletins issued by the meteorological Centers, Central Water Commission, Flood Forecasting Organization;
h. Deployment of boats at strategic points;
i. Use of power boats;
j. Installation of temporary Police Wireless Stations and temporary telephones in flood-prone areas;
k. Arrangement for keeping telephone and telegraph lines in order;
l. Storage of food in interior ,vulnerable strategic and key areas;
m. Arrangements of dry food stuff and other necessities and of life;
n. Arrangements for keeping the drainage system de-silted and properly maintained;
o. Agricultural measures;
p. Health measures;
q. Veterinary measures;
r. Selection of flood shelters;
s. Advance arrangements for army assistance;
t. Training in flood relief work;
u. Organization of relief parties;
v. Other precautionary measures ; and
w. Alternative drinking water supply arrangements.

Arrangement during and after floods:-

a. Organizing rescue operations.
b. Organizing shelter and relief camps for the people in distress, in case the efforts of the civil authorities are considered inadequate, Army assistance should be requisitioned.
c. Relief measures by non-official and voluntary organizations may be enlisted as far as possible.
d. Provision of basic amenities like drinking water, sanitation and public health care and arrangements of cooked food in the relief camps.
e. Making necessary arrangements for air dropping of food packets in the marooned villages through helicopters.
f. Organizing enough relief parties to the rescue of the marooned people within a reasonable time limit.
g. Establish alternate communication links to have effective communication with marooned areas.
h. Organizing controlled kitchens to supply foods initially at least for 3 days.
i. Organizing cattle camps, if necessary, and provide veterinary care, fodder and cattle feed to the affected animals.
j. Grant of emergency relief to all the affected people.
k. Submission of daily reports and disseminates correct information through mass media to avoid rumours.
l. Rehabilitation of homeless.
m. Commencement of agricultural activities like de-siltation, re-sowing.
n. Repairs and reconstructions of infrastructural facilities such as roads, embankments, Resettlement of flood prone areas.
o. Health measures.
p. Relief for economic reconstruction.

CHAPTER 6

DISASTER RESPONSE PLAN

1.1 MANAGEMENT OF RESPONSE OPERATIONS IN MAMIT

It is the responsibility of the District Administration to organize response activities immediately in case of disaster so as to limit casualties, alleviate hardship and suffering, to restore life support and community system, to mitigate further damage of loss and to provide the donation for subsequent recovery. In the event of a disaster like earthquake, it is the local community that gets involved in the search and rescue operations even before the government agencies reach the spot. Clear cut identification of response activities in Mizoram are broadly identified in this section.

1) **Search and Rescue**: Local communities and neighbourhood will provide search and rescue services in the event of any disaster. In the case of an earthquake, additional support from PWD will be required for clearing debris in order to rescue people trapped in collapsed buildings. The manpower of Police Department may also supplement the man-power resources of local community and neighbourhood.

2) **Medical Relief**: Victims of disasters like earthquake required immediate medical care. The Health and Family Welfare Department will be responsible for providing necessary medical services to the victims. It also has to be seen that precautionary actions to prevent the outbreak of epidemics is taken as the risk is normally very high. Local medical practitioners, other Hospital and Community volunteers could support the efforts of the Health and Family Welfare Department. The Chief Medical Officer would act as the Head of Combat Agency.

3) **Evacuation & Shelter:** Evacuation may be required to avoid loss of human life from after-shocks (especially in a disaster like earthquake). Traditionally, the Home guards perform the responsibilities of evacuation with support from other government agencies. In Mamit District (Not only in the District, but also in the whole of Mizoram), a major role will have to be played by NGOs, especially the biggest NGO in the State-Young Mizo Association. Provision of shelter to the evacuated people and to those who have been rendered homeless is another important requirement. Here, the joint efforts of the government agencies as well as local communities and NGOs will be required. Temporary shelters will have to establish and the DC will assign duties to the Officers from line departments for running and maintaining these shelters.

4) **Restoration of Life-Line Facilities**: Another important response activity is the prompt restoration of vital life-line facilities. Bringing such life line facilities like water and power supply are the responsibility of Technical Department like PWD, PHED and Power & Electricity Department. We also have to see that Public Distribution System of Food & Civil Supplies is also regulated.

5) **Law and Order and Security of Properties of Affected Population**: In the event of a disaster, many people are compelled to leave their homes and properties. Simultaneously, law and order conditions tend to deteriorate. It is the responsibility of the Police Department to maintain law and order as well as provide security to the properties of affected population.

6) **Damaged Assessment**: Damage, in the event of disaster, is mostly concentrated on building. Damaged on buildings are caused by such factors like building configuration, structural elements, earthquake severity and construction materials used. A rapid damage assessment should be made to examine extent of damage for mobilization of rescue and relief activities. Here, demographic details must be inventory and behaviour of buildings at the time of earthquake must be carefully studied. Apart from concerned departments and governments agencies,' local persons having good knowledge of the locality should be associated. Rapid Damage Assessment leads to the second phase known as building safety evaluation where buildings are identified under various damage grades. Finally, Detailed Damage Assessment has to be made. This assessment is made at the recovery stage and requires skilled personnel of engineering background. The aims of this assessment are:-

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   (iii) (iii) To propose retrofitting for re-strengthening.

   Replacement of destroyed buildings and infrastructure and the reconstruction of damaged communities should strive to make the new community safe against the repetition of the disaster in future. In the aftermath of an earthquake, the replacement of large section of cities and town and the rehabilitation of a major section of the community gives or creates the opportunity to bring changes that will reduce the impact of the next earthquake.

7) **Local resources available to Combat Disaster:** In Mizoram, we have Young Mizo Association, the most comprehensive and dominant social institution with enormous influence on the society which aim to preserve and perpetuate the Mizo ethos (Tlawmngaihna) which urges people to do human duty without any expectation of raising status of earning applause. Commitment of the YMA to the cause of suffering people, bereaved families and the people in distress is time tested and they could be link between the District machinery and the people. In psychological relief, counselling trauma cases, there can be no match to them, Ensuring good community behaviour, encourage people to stay calm and teach them exercise for evacuation and lead an injured persons side by side with the Medical teams may be assigned to the YMA.

6.2 ACTION PLAN FOR EMERGENCY SUPPORT FUNCTIONS (ESF)

6.2.1 Short Term Response Plan

Short term response plan contains the actions to be taken immediately after a disaster. Once an information has reached the district EOC or any of the Disaster Managers in the district either from authentic or unauthentic sources, it has to be

verified soon for authenticity. Once the information is found correct, it has to be reported to the Incident Commander via fastest communication system. The Incident Commander shall take the following actions:-

1) Disseminate warning/alert to the potential victims
2) Disseminate information to vertical and horizontal EOCs
3) Disseminate information to vertical and horizontal Administrators & DMTs
4) Declare Disaster based on the severity/vulnerability Rescue Operations.

Immediately after a disaster, the Deputy Commissioner, also the District Magistrate shall act as an Incident Commander and take over disaster management. He/she shall coordinate the rescue operations with the help of the Working Group for relief and rehabilitation and the Emergency Support Functions. Along with the rescue operations the Incident Commander(IC) shall take the following measures:-

- Activate the Incident Command System.
- Call meeting of Crisis Management Group.
- Coordinate the ESFs in disaster management.
- Set up Site/Onsite Operation Centers and activate relief camps.
- Collect preliminary assessment report from the onsite EOCs.
- Activate the pre-contract vendors and collect relief materials for distribution.
- Brief the situation to the higher authority as well as to press/media people.
- Ensure basic logistic arrangements for disaster managers and the Operation Centers.
- Mobilize resources/call assistance from various stake holders.

Relief Operations -

Once the rescue phase is over, the district administration shall provide immediate relief assistance either in cash or in kind to the victims of the disaster. The DDMC shall enter in to pre-contract well in advance and procure materials required for life saving. The office of the Deputy Commissioner is responsible for providing relief to the victims of natural and man-made disasters like fire, flood, draught, earthquakes, riots, terrorist attacks, accidents etc.

Rehabilitation -

In short response rehabilitation is the final step. The Incident Command System shall be deactivated as the rehabilitation phase is over. Thereafter, the normal administration shall take up the remaining reconstruction works in the disaster affected areas. These activities shall be performed by the Working group for relief and rehabilitation under the directions of the DDMC.

6.2.2 Long Term Response Plan

The long-term response plans are related with recovery and reconstructions activities on one side and institutionalizing disaster management in district administration on the other side. There are Standard Operating Procedures (SOPs) for the Emergency Support Functions. In long term measures the following actions shall be undertaken duly:-

1) Constitution of Emergency Support Functions (ESF), Disaster Management Teams, Quick Response Teams, Fields Response Teams

2) Refreshers trainings for all such teams at regular interval of time and exercise of Mock Drills
3) Continuous of awareness/sensitization programme for the stakeholders and the general public
4) Getting pre-contract with vendors and merchant to procure, relief materials in times of disaster.

Most of the line Depts. in the District, Autonomous bodies and Organizations are part of the ESF. The actions Plans for ESFs for disaster management are discussed below. The DDMC shall ensure these action plans are updated annually and practice through mock drills in the District.

6.3 ACTION PLAN FOR POLICE

Response Activation -

1) The Nodal officer from the Police will activate the Quick Response Teams (QRTs)
2) The Quick Response Teams will be deployed at the onsite EOCs
3) As per the information from IMTs, more officers may be sent at site.

Actions to be taken -

1) If felt necessary, cordoning-off area to restrict movement of on-lookers, vehicular and pedestrian traffic should be done
2) Quick assessment of law and order situation in affected areas
3) Prepare updates on the law and order situation every 2-3 hours and brief the Incident Commander
4) Arrangement for controlling situations like rioting and looting
5) QRTs will guard property and valuable in affected areas
6) Control and monitor traffic movement
7) QRTs will provide diversion of traffic on alternate routes as and when it is necessary
8) The QRTs will also provide information about traffic flow along various corridors, especially heavy traffic or congested roads
9) QRTs will communicate to police control rooms, details on the field activities including deployment and reinforcement of staff and resources and communicate nature of additional requirements.

List of equipment to be brought -

1) Search Lights
2) Electric generators
3) Crane-Heavy Duty, Fork Type
4) Recovery Van
5) Stretchers
6) First Aid Kits
7) Vehicles: Mini Buses, heavy truck, light ambulance vans, mobilization trucks
8) Water tanker
9) Any other.

6.4 ACTION PLAN FOR FIRE SERVICE

Response Activation -

1) As soon as the Nodal Officer gets information about the disaster, he should reach the EOC
2) The Quick Response Team will be deployed at the onsite EOCs
3) As per the information from IMT, more officers may be sent at site.

Actions to be taken -

1) At the site, QRTs should contact the local volunteers and local people together information about vulnerable areas so that search and rescue operation can take place through a proper channel in heavily dense areas, large buildings, community centers, hotels, hospitals, public buildings and any other area having large gathering.
2) Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble.
3) The injured people should be taken out of damaged buildings, structures etc. with utmost care.
4) Special care to women and children group should be given as they are expected to be more affected and helpless in case of any emergency situation.
5) Co-ordinate with the transportation ESF if a large number of medical professionals need to be sent to the affected sites and/or a large number of victims need to be transported to health facilities.

Equipment to be brought -

1) Water tenders
2) Ladder Platforms
3) Concrete Cutter
4) Other equipment necessary for Search and Rescue Operations, depends upon need.

6.5 ACTION PLAN FOR HOME GUARDS

Response Activation -

1) As soon as the Nodal Officer gets information about the disaster, he should reach the EOC.
2) The Quick Response Teams will be deployed at the sites.
3) As per the information received from IMT, more officers may be sent at site.

Actions to be taken -

1) Support and co-ordinate with the Incident Command System for Law and Order, Search & Rescue and Medical Response and Trauma Counselling functions.
2) Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble.
3) The injured people should be taken out of damaged buildings, structures etc. with utmost care.

4) Special care to women and children groups should be given as they are expected to be more affected and helpless in case of any emergency situation.
5) In case of fire, the Civil Defense team members should do firefighting.
6) First Aid should be provided along with the members of ESF on medical response.
7) Demonstrate Search and Rescue.

Equipment to be brought -

1) Extension ladders
2) Sledge Hammers
3) Lifting Tackles
4) Stretchers
5) Tarpaulins/Silpaulins
6) Any other.

6.6 ACTION PLAN FOR POWER & ELECTRICITY DEPARTMENT

Response Activation -

1) Get the power ESF activated.
2) Nodal Officer of primary agency will call Nodal Officers of supporting agencies.
3) As per the information from IMTs, the nodal officer of primary agency will activate the State Quick Response Teams at field level.
4) The Quick Response Teams will be deployed at the affected areas.

Actions to be taken -

Team Leader will dispatch emergency repair teams equipped with tools, tents, etc.

Equipment to be brought -

All equipment required to restore power supply.

6.7 ACTION PLAN FOR BSNL

The BSNL is primarily responsible for restoration of Telecommunication facilities. The BSNL should ensure the smooth flow of information that can cater to the outreach in a time-sensitive manner at State level in response efforts.

Response Activation -

1) Soon after receiving information about disaster (from any source), Nodal Officer will contact District Emergency Operations Center.
2) The Nodal Officer from BSNL will activate the Quick Response Teams.
3) The Quick Response Teams will be deployed at the Incident Sites.
4) As per the information from Incident Management Team (IMT), more teams may be deployed.

Actions to be taken -

1) Communicate situation to support agencies and request for detailed information on the status of equipment and infrastructure damaged in the affected areas.
2) Launch assessment mission to understand better the nature of damage telecom services and network.

3) Ensure possible arrangements for establishing reliable and appropriate network.
4) Work out a plan of action for private telecom companies/service providers and convene a meeting to discuss and finalize the modalities.
5) Compile and communicate Action Taken Reports to District and State Authorities.
6) New numbers and details of contact persons to be communicated to Emergency Operations Center (District/State).
7) Mobile exchanges should be deployed as alternative mode of communication for authorities and general public.
8) Establish telephone facilities for the public and information on this should be announced through media.
9) Monitor the situation and arrange for emergency staff required to operate systems established.
10) Inform District/State authorities on debris clearance of the work required.
11) Initiate temporary rehabilitation work required.
12) Launch rehabilitation work and arrange for repairs and relocation, if required.
13) Other necessary equipment to restore communication network/set-up alternative emergency communication.

Equipment to be brought -

Making various types of equipment, material, technical manpower and services available, if required.

6.8 ACTION PLAN FOR LAD/UD&PA

Actions to be taken -

1) LAD/UD&PA will bring debris of heavy RCC structures (having beams/columns) and put dumps beneath the debris. This will facilitate search and rescue operations. Soon after search and rescue team leave the site, LAD will mobilize equipment for debris clearance.
2) LAD/UD&PA will assume main role in Equipment support, debris and road clearance, on receiving the intimation of the disaster from state EOC.
3) LAD/UD&PA will coordinate with the supporting agency's officers to mobilize equipment from the ware houses.
4) The respective supporting agencies will contact their respective supporting agencies to move the equipment to central warehouses.
5) The equipment like Vehicle (JCB/Truck), concrete cutters identified as per the need will be transported to the site.
6) On receiving intimation of the intensity of the damages of structure, the Nodal Officer will make an assessment of the damages of roads and structures reported at the site and surrounding areas.
7) The Supporting Agencies Nodal Officers will call for personnel to immediately start debris clearance operations to enable movement to the affected site.
8) All supporting agencies will inspect the road network and structures within the disaster site and surrounding.
9) LAD/UD&PA will also ensure proper corpse disposal and post-mortem by coordinating with ESF on medical response.
10) Assessment of damage (locations, no. of damaged, severity of damage).
11) The QRTs will be deployed at the affected site.

12) Enlisting the types of equipment as compiled from resource inventory required for conducting the debris clearance.
13) The QRTs will report the situation and the progress in response activities to the respective EOCs.
14) Undertake constructions of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for disaster victims.
15) Undertake repair of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.
16) Ensure a critical number of medical professionals to reach the site including specialist from outside the State.
17) If temporary living arrangements are being made from affected populace, the LAD/UD&PA must ensure high standards of sanitation in settlements in order to prevent the multiplicity of the disaster.
18) It should also ensure the provision of medicine and other medical facilities required at the disaster site and the hospital health centers catering to the disaster victims.
19) In case of orthopaedic care required in disasters like earthquakes the immediate response would have to be complimented by a follow-up treatment schedule for a majority of the patients in/near their place of residence.
20) Compiled an itemized assessment of damage from reports made by various receiving centers and sub-centers.

Equipment to be brought -

1) Concrete breakers, debris/road clearance supporting rescue operations.
2) Vehicles (Trucks).
3) Other disaster management related equipment.

6.9 ACTION PLAN FOR PUBLIC WORKS DEPARTMENT

Actions to be taken -

1) The above agencies will bring debris of heavy RCC structures (having beams/columns) and put dummies beneath the debris. This will facilitate demonstration of search and rescue operations. Soon after search and rescue team leave the site, PWD will mobilize equipment for debris clearance.
2) Assume role in equipment support, debris and road clearance, on receiving the intimation of the disaster from State EOC/Nodal Officer of LAD/UD&PA.
3) Coordinate with the LAD/UD&PA officers to mobilize equipment from the warehouse.
4) The equipment like JCB, Concrete Cutters identified as per the need will be transported to the site.
5) On receiving intimation on the intensity of the damages of structures, the Nodal Officer will make an assessment on the damages of roads and structures reported at the site and surrounding areas.
6) The Nodal Officer will call for personnel to immediately start debris clearance operation to enable movement to the affected site.
7) A review of the current situation should be taken up by the nodal agency to

update the support agencies to delegate their respective personnel to take precautionary measures to plan de-routes for the transportation ESFs to operational.

8) All supporting agencies will inspect the road network and structure within the disaster site and surrounding.
9) Ensure proper corpse disposal and post mortem by coordinating with ESF on medical response.
10) Damaged assessment.
11) The QRTs will be deployed at the affected site.
12) Enlisting the types of equipment as compiled from resource inventory required for conducting the debris clearance.
13) The QRTs will report the situation and progress in response activities to the respective EOCs.
14) Undertake constructions of temporary roads to access temporary transit and relief camps, and medical facilities for disaster victims.
15) Undertake repair of all paved and unpaved road surfaces including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keep monitoring their conditions.
16) Ensure a critical number of Professionals to reach the site including specialists from outside the State.
17) If temporary living arrangements are being made from the affected populace, the agencies must ensure high standards of sanitation in human settlements in order to prevent the multiplicity of the disaster.
18) Coordinate, direct, and integrate response to provide equipment supports, set up relief camps, and sanitation health assistances. 19) Mobilize different modes of transportation to be put on stand-by.
20) Assist timely re-establishment of the critical transportation links.
21) Establish temporary electricity supplies for relief materials warehouse and relief camps.
22) Compile an itemized assessment of damage, from reports made by various receiving centers and sub-centers.
23) Mobilize other disaster management related equipment. JCB, Concrete breakers, Cranes, Grader, Jack Hammer, Tipper, Folkanes, Dumper, Aeromatic Hammer for debris/road clearance, supporting rescue operations, etc.
24) Mobilize vehicles (Truck), Earth Movers, Mobile medical vans.
25) Mobilize other disaster management related equipment.

6.10 ACTION PLAN FOR DEPARTMENT OF FOOD, CIVIL SUPPLIES AND CONSUMER AFFAIRS (FCS&CA)

FCS&CA must stock adequate food supply as far as possible and must be ready to provide as per need base during the period of calamity/disaster.

6.11 ACTION PLAN FOR HEALTH/MEDICAL SERVICES

Response Activation-

1) Nodal Officer will call Nodal Officers of supporting agencies.
2) In co-ordination with the transportation ESF, it will ensure a critical number of professionals to reach the sites including specialists.

3) If temporary living arrangements are being made from the affected populace, must ensure high standards of sanitation in human settlements in order to prevent the multiplicity of the disaster.
4) Also ensure the provision of medicine and other medical facilities required at the disaster site and the hospital health centers catering to disasters victims.
5) In case of orthopaedic care required, immediate response would have to be complimented by a follow-up treatment schedule for a majority of the patients in/near their place of residence.
6) Trained professional should be mobilized for psychosocial support.
7) Ensure setting up of temporary information centers at hospital with the help of ESF on help-lines and warning dissemination.
8) Co-ordinate, direct, and integrate State level response to provide medical and sanitation health assistances.

Actions to be taken -

1) Readying all hospitals (including private hospitals) for managing large no. of casualties and severely injured population.
2) Sufficient stock of required medicines, vaccines, drugs, plasters, syringes, etc.
3) Provide systematic approach to patient care (Mass casualty management).
4) Triage done to determine who needs to be taken to a medical facility on a priority basis and who can be treated on-site.
5) First-aid provided as required.
6) Patients stabilized before transport.
7) Patients transported to nearest available medical facility having the required facilities.
8) Trauma counselling provided to the victims and their relatives at the site and in the hospital.
9) In the hospital emergency department, triage carried out again to prioritize treatment and appropriate care provided.
10) Maintain patient tracking system to keep record of all patients treated.
11) Deploy mobile hospital as needed.
12) Arrange for additional blood supply and organize blood donation camp for additional blood requirement.
13) Provide for sending additional medical personnel equipped with food, bedding and tents.
14) Send vehicles and any additional medical equipment.
15) QRTs will report the situation and the progress on action taken by the team to the respective EOCs.
16) QRTs quickly assess type of injuries, no. of people affected, and possible medical needs.
17) QRTs will ensure timely response to the needs of the affected victims.
18) Establish health facility and treatment centers at disaster sites.
19) The District Medical Superintendent/Chief Medical Officer with district/state control room should co-ordinate the provision of medical services. Procedures should be clarified between:-
    - Peripheral hospitals;
    - Private hospitals;

- Blood banks;
- General hospitals;
- Health services established at transit camps, relief camps, and affected villages.

QRT's should maintain check posts and surveillance at all entry and exit points from the affected area, especially during the threat or existence of an epidemic.

Equipment to be brought -

1) Mobile medical vans (clinic) with paramedical staff;
2) Mobile radiology unit, pathology test arrangements;
3) Vehicles for carrying severely injured;
4) Stretchers, lifesaving drugs, blood, etc.;
5) Other resources required during emergency for setting up medical camps.

6.12 ACTION PLAN FOR PUBLIC HEALTH ENGINEERING DEPARTMENT

Response Activation -

1) Upon receipt of notification about disaster, PHE Nodal officer will activate quick response teams.
2) The quick response teams will be deployed at the sites.

Actions to be taken -

1) Quick assessment of water line damage and contamination.
2) Supply of water tankers to disaster affected communities.
3) Deploy response teams to repair and restore water supply lines that may be damaged after disaster.
4) Quick assessment of water contamination levels and taking steps to restore clean drinking water.
5) Provide information to IMT, District EOC and State EOC about extent of damage.

Equipment / materials to be brought to site

Water Tankers and pipe

6.13 ACTION PLAN FOR DEPARTMENT OF TRANSPORT

Response Activation -

1) Team Leader will activate ESF on receiving information of the disaster from state EOC
2) Team Leader will inform Nodal Officers of supporting agencies about the event and ESF activation.

Actions to taken -

Team Leader communicates situation to support agencies and requests for detailed information on the status of transportation infrastructure in the affected area(s).

The head of each department who is the team leader of each ESF and the Nodal Officers of the supporting agencies are responsible to prepare for potential hazards that might impact the district severely. These departments/agencies have clearly identified roles and functions in accordance with the National Response Plan (NRP). They have been grouped in as ESFs as per their nature and type of assistance they can provide. When the team leaders of these ESFs are located in the EOC, they would function for the overall district response.

CHAPTER 7

STANDARD OPERATING PROCEDURES (SOP)

Emergency Support Functions (ESFs) are intended to help the Incident Commander at the time of emergency for restoring normal life. The ESF is an organized system of District level departments and agencies, which are to be worked under a structured pattern for response and recovery in accordance with the District Disaster Management Plan.

The Standard Operating Procedures (SOPs) for ESFs explains about the operations and responsibilities of the leading and supporting agencies that are to be involved in the ESF system. The document also outlines the purpose and scope for each function of operation that is to be followed by the respective ESF agencies when the Incident Commander (IC) activates the response plan during the emergency period. The major functions of the Incident Command Systems are summarized in the sections below.

7.1 COMMUNICATION

The communication ESF is primarily responsible for restoration of communication facilities. The ESF on communication should ensure the smooth flow of information that can cater to the outreach in a time-sensitive manner at State level in response efforts

Situation Assumptions -

1) There would be a congestion in the network because of increased calls to control rooms due to panic created in the community.
2) The initial reports on damage may not give a clear picture of the extent of damage to communication network.
3) The affected site may be cut off from the state control rooms and the official on the site and find difficulty in communicating to the District/State EOC.

Nodal Agency - Bharat Sanchar Nigam Limited (BSNL) Supporting Agencies - NIC, Police, I & PRO.

SOP for Nodal Agency -

Team Leader (TL) of communication EFS will activate the ESF on receiving the intimation of occurrence of disaster from the District EOC.

1) TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation
2) TL would establish contact with the district EOC for FIR.
3) TL request for reports from local ESF contact persons (this would be the local office of ESF Nodal Agency) to understand the current situation and action taken.
4) Based on information received from supporting agencies, TL decides whether to

launch an assessment mission for estimating the damaged to telecom services and network as well as to come up with possible arrangements to establishing reliable and appropriate network.

5) TL to communicate situation to supporting agencies and also request to provide details on the status of equipment and infrastructure in the affected area(s).
6) TL to inform the IC about the status of telecom services.
7) TL must prepare an action plan for telecom companies and convenes a meeting of all ESF members to discuss and finalize the modalities.
8) TL may issue orders to establish systems and report to District EOCs on the action taken. New phone numbers and details of contact persons would also be communicated.
9) TL gets the temporary telephone facilities established for the public. Prior information on this would be announced through media.
10) TL sends the District Quick Response team at the affected site with the equipment required and other resources.

SOP for Quick Response Team on Communication -

1) The QRT (Quick Response Team) members will reach the Nodal office as soon as they get instructions from the TL.
2) Once the QRT's receive the intimation from the Nodal Officer to reach at the site they would rush to the site.
3) At the emergency site, QRT members will take stock of the situation from the IC and would also know about their counter-parts.
4) QRT's would assess the ground situation and send sectoral report to the District ESF agency. A sectoral report must include the following:-
    a) An assessment of overall damage, listing specifically
    b) Overhead road damage (in miles/kilometers)
    c) Cable damage (in yards/meters)
    d) Specific equipment damaged
    e) Established a temporary communication facility for the public
    f) Identify requirements of man power, vehicles and other material and equipment. Give priority and concentrate on repairs and normalization of communication system at the affected areas.
5) Begin restoration by removing and salvaging wires and poles from the roadways with the help of casual labours.
6) Carryout temporary building repairs to establish a secure storage area for the equipment and salvaged materials.
7) Report all activities to head office.

7.2. EVACUATION

The ESF on evacuation is primarily responsible for establishing evacuation plans, identification of fastest evacuation routes and alternate routes and coordinating evacuation logistics during field operations

Situation Assumptions -

1) Most of the buildings could be damage and are not serviceable.

2) Many structures could be damage and there could be an urgent need for evacuation.

Nodal Agency - Office of the Deputy Commissioner, Mamit. Supporting Agencies - Police, NYK.

SOP for Nodal Agency -

1) Team Leader (TL) of evacuation ESF would activate the ESF on receiving the warning of the disaster from the District EOC.
2) TL would inform Nodal Officers (NOs) of supporting agencies about the event and ESF activation.
3) TL will direct the QRTs to be deployed at the affected site.
4) TL will gather information on availability of predefined evacuation routes.
5) Where the predefined evacuation routes are not available, the Nodal Officer would coordinate through District EOC with other ESFs Nodal Officers and the support agencies about clearing of routes and identifying alternate routes.

SOPs for Quick Response Team (QRT) on Evacuation -

1) The QRT members will reach the nodal office as soon as they get instructions to do so from the TL.
2) Once the QRT receive order from the Nodal Officer for reaching the site they should rush to the site.
3) On reaching at the site the QRT members will take stock of the situation from the Incident Management Team at the site and their counter-parts.
4) The QRT with the help of local task forces will start evacuating people to safe shelters or open areas. The QRT members should concentrate more on evacuation in areas that have been worst affected by the disasters and report about all activities to head office.

7.3 SEARCH AND RESCUE (S&R)

Search and rescue operations are one of the primary activities taken up in a post disaster situation. The promptness in these operations can make a remarkable difference in the amount of loss of life and property.

Situation Assumptions -

1) Local community task forces will initiate search and rescue at residential level
2) Spontaneous volunteers will require coordination
3) Access to affected areas will be limited
4) Some sites may be accessible only through air routes

Nodal Agency - Police, Fire & Emergency Services
Support agency – IR Bn./SAP and Health/Medical Dept.

SOP for Nodal Agency -

1) IC will call the TL of the primary agency and get the ESF activated
2) TL of primary agency will call nodal officers of supporting agencies
3) TL would activate the District Quick Response Team

4) Quick Assessment of the S&R operations through surveys
5) Assessment of the specific skill sets and the other equipment required
6) Using IDRN network to check and map the availability of resources in and round the disaster site.

SOP for Quick Response Team on Search and Rescue -

1) Assessment of damaged (locations, no. of structures damaged, severity of damaged)
2) The QRTs will be deployed at the affected site
3) Enlisting the types of equipment required for conducting the S&R
4) QRTs will report the situation and the progress in response activities to the respective EOCs.

7.4 LAW AND ORDER

The ESF on Law and Order maintains the law and protects the property and valuable commodities. It is mainly responsible to control crowd and avoid riots situations.

Situation Assumptions -

1) There would be panic and people would gather at a place
2) The crowds may go out of control
3) Riots may also take place

Nodal Agency - Police
Support Agency - Home Guards, IR Bn./SAP

SOP for Nodal Agency -

1) IC will call the TL of Primary Agency and get the ESF activated.
2) TL of primary agency will call Nodal Officers of supporting agencies.
3) TL would activate the District Quick Response Team.
4) The QRTs will be deployed at the affected site.
5) Cordoning of area to restrict movement of onlookers, vehicular and pedestrian traffic should be done.
6) Any additional requirements at site to be taken care of.
7) SOP for Quick Response Team on Law and Order.
8) Quick assessment of law and order situation in affected areas.
9) Support and coordinate with Local Administration.
10) Prepare updates on the law and order situation every 4-6 hours and brief the Authorities.
11) Controlling situations like rioting and looting, etc.
12) QRTs will guide property and valuables in affected areas.
13) Control and monitor traffic movement.
14) QRTs will provide diversion of traffic on alternate routes as and when it is necessary especially heavy traffic or congested roads.
15) QRTs will also provide information on traffic flow at various corridors.
16) QRTs will communicate with Police Control Rooms, details on the field activities including deployment and reinforcement of staff and resources and communicate nature of additional requirements.

7.5 MEDICAL RESPONSE AND TRAUMA COUNSELING

The ESF on Medical Response and Trauma Counseling will look after emergency treatment for the injured people immediately after the disaster take place.

Situation Assumptions -

1) Emergency Medical services will be required by victims of the disaster
2) Like outbreaks of epidemic diseases after the disaster
3) Hospital services would be affected.

Nodal Agency - Health & Family Welfare Dept. and Medical & Hospital Admin. Dept.
Supporting Agency - NSS, MUP, MHIP, Church Leaders.

SOP for Nodal Agency -

IC will call the TL of Primary Agency and get the ESF activated. Team Leader (TL) of primary agency will call Nodal Officers of supporting agencies.

1) In coordination with the transportation ESF, it will ensure a critical number of medical professionals to be reached at the site including specialists from other districts.
2) If temporary housing arrangements are being made for the affected population, the ESF must ensure high standards of sanitation in settlements in order to reduce epidemic outbreak.
3) Ensuring the provision and continuous supply of medical facilities (Medicine, equipment, ambulances, doctors and manpower etc.) required at the disaster affected site and the hospital health centers catering to the disaster victims.
4) In case of orthopaedic care required in disaster like earthquakes, immediate response should be complemented by a follow up treatment schedule for a majority of the patient in/near their place of residence.
5) Trained professional should be mobilized by psychosocial support.
6) Ensure setting up of temporary Information Centers at Hospital with the help of ESF through help-lines and warning dissemination system.
7) TL will coordinate, direct, and integrate State level response to provide medical and sanitation health assistances.
8) On the recommendations of the EOC, the TL is also responsible to:-
    - Send required medicines, vaccines, drugs, plaster, syringes, etc. Send vehicles and arrange for additional blood supply
    - Send additional medical personnel equipped with food, bedding and tents and any additional equipment.

SOP for Quick Response Team (QRT) on Medical Response and Trauma Counseling -

1) QRTs will provide situation and progress reports on the action taken by the team to the respective EOCs.
2) QRTs will assess type of injuries, number of people affected and possible medical assistance needs.
3) QRTs will ensure timely response to the needs of the affected victims such as:-

a) Establishing health facilities and treatment Centers at the disaster sites.

b) Providing medical services as reported by the CMO and DMS with the District EOC and State EOCs.
c) Procedures should be clarified in between:- Peripheral Hospitals.
    - Private Hospitals.
    - Blood Banks.
    - General Hospitals and Health services establish at transit camps, relief camps and affected villages.

QRTs should maintain check posts and surveillance at all entry and exit points from the affected area, especially during the threat or existence of an epidemic.

7.6 WATER SUPPLY

The ESF on drinking water and supply will ensure provision of basic quantity of clean drinking water and water for other purposes in a manner that does not allow the spread of diseases through the contamination of water.

Situation Assumptions -

1) Existing water storage bodies will be damaged and un-useable.
2) There can be an urgent need of water to assist victims in rescue operation.
3) Break down of sanitation system and contamination of water due to outflow from sewers or due to breakage of water pipelines

Nodal Agency - PHED
Support Agency - LAD. NGOs

SOP for Nodal Agency -

1) Team Leader (TL) of ESF on Water Supply will activate the ESF on receiving the intimation of the disaster from District EOC.
2) TL would inform Nodal Officers (NOs) of supporting agencies about the event and ESF activation.
3) TL will ensure special care for women with infants and pregnant.
4) Provide additional support along with food, bedding, and tents.
5) Send vehicles and any additional tools and equipment needed.

SOP for Quick Response Team (QRT) on Water Supply -

1) QRT's will ensure that supply of drinking water is made available at the affected site and relief camps.
2) QRT's will ensure temporary sewerage and drainage are kept separate.
3) QRT's will report the situation and the progress on action taken by the team to the EOC.
4) QRT's will intimate their TL of the additional resources needed.
5) Carry out emergency repairs of all damages to water supply systems.
6) Assist authorities to identify appropriate sources of potable water.
7) Identify unacceptable water sources and take necessary precautions to ensure that no water is accessed from such sources, either by sealing such arrangements or by posting the department guards.
8) Arrange for alternate water supply and water storage in all transit camps, feeding

centers, relief camps, cattle camps, and also the affected areas, till normal water supply is restored.
9) Ensure that potable water supply is restored as per the standards and procedures laid down in “Standards for Potable Water .
10) Plan for emergency accommodations for staff from outside the area.
11) QRTs will ensure timely response to the needs of the affected victims.
12) QRTs will set up temporary sanitation facilities at the relief camps.

7.7 RELIEF (FOOD AND SHELTER)

In the event of a disaster there would be a need of disbursing relief materials due to massive destruction of life and property taken place. The ESF on relief should ensure coordination of activities involving emergency provisions of temporary shelters, emergency mass feeding and bulk distribution of relief supplies to the disaster victims as also the disaster managers and relief workers.

Situation Assumptions -
1) Probability of shortage of resources
2) Immediate assistance to the community at the time of resource shortage, particularly when affected area is larger.

Nodal Agency - Department of Food, Civil Supply and Consumer Affairs Support Agency - NGOs

SOP for Nodal Agency -
1) TL will activate the ESF on receiving the information of the disaster from District EOC.
2) TL would inform the Nodal Officers (NOs) of support agencies about the event and the ESF activation.
3) TL will co-ordinate with all State and District level suppliers as identified with under IDRN.
4) TL will coordinate with other ESFs, related to transportation, debris, road clearance, etc., to ensure quality supply chain management of relief materials.
5) Ensuring relief with availability of complimentary relief material.

SOP for Quick Response Team (QRT) on relief -
1) QRT‘s will report to site of the relief camps
2) QRT‘s will be responsible to manage and distribute relief items to the affected victims
3) QRT‘s will be responsible for supporting the action taken by the team to the EOC
4) QRT‘s will provide information to TL about the need of extra resources
5) Clearing of the areas to establish relief camps
6) Setting up relief camps using innovative methods that can save time
7) Assist local authorities to set up telecom and its related services
8) Initiate, direct and market procurement of food available for different inventories and ensuring food supplies to the affected population

9) Preparing take-home food packets for the families
10) Ensuring distribution of relief material to all the people including vulnerable groups of the target area such as women with infants, pregnant women, children, old aged and handicapped
11) Ensuring support to Local Administration
12) Local adequate relief camps based on damage survey
13) Develop alternate arrangement for population living in structures that might be affected even after the disaster.

7.8 EQUIPMENT SUPPORT, DEBRIS AND ROAD CLEARANCE

The importance of this ESF emanates from the fact that most large scale hazards such as earthquakes, cyclones, landslide, and floods primarily affect the building structures.

Situation Assumptions -

1) Access to disaster-affected area would depend upon the reestablishment of ground and water routes.
2) Early damage assessment may be incomplete, inaccurate and general. A rapid assessment may be required to determine response time.
3) Engineers and masons may be required in large scale for the inspection of present buildings.

Nodal Agency - PWD
Support Agency - LAD

SOP for Nodal Agency -

1) Team Leader (TL) will activate the ESF on receiving the information of the disaster from District EOC.
2) TL would inform Nodal Officers (NOs) of supporting agencies about the event and ESF activation.
3) TL will coordinate with the supporting agency to mobilize equipment from the warehouses through IDRN database.
4) The respective supporting agencies will contact their respective personnel to move the equipment to central warehouse.
5) The equipment like JCB, concrete cutters identified as per the need will be transported to the site.
6) As per the information, the Nodal Officer of Debris clearance will make an assessment on of the damages of roads and built up structures at the site and surrounding areas.
7) The Nodal Officers of Supporting Agencies will immediately start debris clearance operation to enable movement to the affected site.
8) Review of the current situation is taken up by the Nodal Agency to update the support agencies and to delegate their respective personnel to take precautionary measure to plan de-routes for the transportation ESFs to be operational.
9) All supporting agencies will inspect the road and rail network and structures within the disaster site and surrounding.
10) TL will also ensure proper corpse disposal and post-mortem by coordinating with ESF on medical response.

SOP for Quick Response Team on Equipment Support, Debris and Road Clearance -

1) Damage assessment including locations, number of structures damaged and severity of damage.
2) The QRTs will be deployed at the affected site.
3) Enlisting the types of equipment as compiled from IDRN resource inventory required for conducting the debris clearance.
4) And relief camps, and medical facilities for disaster victims.
5) The QRT's will report the situation and progress in response activities to the respective EOCs.
6) Undertake constructions of temporary roads to access temporary transit and relief camps, and medical facilities for disaster victims.
7) Repairing of all road surfaces including edge metalling, pothole patching and any failure of surface or foundations, in the affected area by the maintenance engineers and monitor their conditions.

7.9 HELP LINES AND WARNING DISSEMINATION

The ESF on help-lines and warning dissemination should process and circulate information about the welfare of citizens of affected area and managing the tremendous flow of information. The help-lines will be responsible for providing, directing and coordinating operations.

Situation Assumptions -

1) There can be a flood of information and confusion about the injured population.
2) The communication with the affected area may be partially impaired.

Nodal Agency - Deputy Commissioner, Mamit
Support Agency - IPRO/MPRO/NIC/NGO Representatives

SOP for Nodal Agency -

1) IC will call the TL of Primary Agency and get the ESF activated.
2) TL of primary agency will call Nodal Officers of supporting agency.
3) TL would activate the District Quick Response Team.
4) The QRT will be deployed at the affected site.
5) QRTs will report the situation and the progress in response activities to the respective EOCs.
6) Sending flash news of latest updates/donation requirements for disaster area all over the State.
7) Assisting the EOC in providing updated information to National as well as at the District level.
8) Setting up of toll free numbers for emergency information assistance.

SOP for Quick Response Team on Help Lines, Warning Dissemination -

1) The QRT members will reach to the Nodal Office as soon as they get instructions.
2) QRT teams would reach to the site immediately after receiving instructions from the Nodal Officer.
3) On the Site QRT members will take stock of the situation from the IC at the site

and their counter parts.

4) The QRTs will co-ordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.

7.10 ELECTRICITY

The ESF on electricity will facilitate restoration of electricity distribution system after a disaster. In the event of a disaster there would be major electricity failure and many power stations damaged

Situation Assumptions -

1) Prolonged Electricity failure.
2) The affected victims may be panicked.
3) Halt of all activities specially jamming communication-networking systems in the affected site.

Nodal Agency - P&E Dept.

SOP for Nodal Agency -

1) IC will call the TL of Primary Agency and get the ESF activated.
2) TL of primary agency will call Nodal Officers of supporting agencies.
3) TL would activate the District Quick Response Team.
4) The QRTs will be deployed at the affected site.
5) TL will dispatch emergency repair teams equipped with tools, tents and food.

SOP for Quick Response Team on Electricity -

1) The QRT members will reach the Nodal Office as soon as they received instructions to do so from the TL.
2) QRT members would reach to the site immediately after receiving instructions from the Nodal Officer.
3) On the site QRT members will take stock of the situation from the IC at the site and their counter-parts.
4) The QRTs will co-ordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.
5) Begin repairing and re-construction work.
6) Assisting hospitals in establishing an emergency supply by assembling generators and other emergency equipment, if necessary.
7) The members of QRTs will establish temporary electricity supplies for other key public and private water system.
8) The members of QRTs will establish temporary electricity supplies for transit camps, feeding centers, relief camps, District Control Room and on access roads to the same.
9) The members of QRTs will establish temporary electricity supplies for relief material warehouse.
10) Compile an itemized assessment of damage, from reports made by various electrical receiving Centers and Sub-Centers.
11) Report about all the activities to the head office.

7.11 TRANSPORTATION

The ESF on Transport should ensure smooth transportation links at the district level. Within the disaster context, quick and safe movement of materials and humans are priority. It should coordinate the use of transportation resources to support the needs of emergency support forces requiring transport capacity to perform their emergency response, recovery and assistance missions.

Situation Assumptions -

1) The damage may be limiting access to the disaster area.
2) Access will improve as routes are cleared and repaired.
3) The movement of relief supplies will create congestion in the transportation services.

Nodal Agency - DTO, Mamit
Support Agency - PWD, Police

SOP for Nodal Agency -

1) TL of Transportation ESF will activate the ESF on receiving the intimation of the disaster from District EOC.
2) TL would inform Nodal Officers (NOs) of supporting agencies about the event and ESF activation.
3) TL establishes contact with the district EOC for FIR.
4) TL requests for reports from local Transportation ESF contact person.
5) TL communicates situation to supporting agencies and request for detailed information on the status of transportation infrastructure in the affected area(s).

SOP for Quick Response Team on Transport -

1) The QRT members will reach to the Nodal Office as soon as they will get instructions to do so from the TL.
2) As quick response teams will receive instructions from the nodal officer they would reach to the site immediately.
3) QRTs would report the situation and the progress on action taken by the team to the respective EOCs.
4) QRT will send a requirement schedule for the different modes of transportation e.g. trucks, boats, helicopters to be put on stand-by.
5) QRTs will ensure timely re-establishment of the critical transportation links.
6) The members of QRTs will establish temporary electricity supplies for relief material warehouse.

Compile an itemized assessment of damage, from reports made, by various electrical receiving Centers and Sub-Centers. 8) Reporting about all activities to the head office.

CHAPTER 8

ROLES & RESPONSIBILITIES OF DIFFERENT ACTORS IN DISASTER MANAGEMENT

In the Disaster Management System Actors from different fields such as Political, Administrative, Non-Governmental sectors have their own role and responsibilities starting from IEC to rehabilitation. These Disaster Managers are assigned with specific responsibilities to avoid overlapping confusion in discharging their duties at the time of need. The very purpose of this chapter is coordinating their services for smoother delivery of timely action and goods to the people at the time of their worst suffering.

8.1 ROLES OF DISTRICT MAGISTRATE / DEPUTY COMMISSIONER IN DISASTER MANAGEMENT

1) Preparation and implementation of the Disaster Management Action Plan for the District with the assistance of the Disaster Management Committee and other experts.
2) Set up the District Control Room and making it function effectively.
3) Ear marking and entrusting responsibility to the various Depts.
4) Coordination with all the line departments of the State, Central and other agencies.
5) To liaise with the Government periodically about the disaster and the action taken.
6) Equip the District machinery and fully prepared before the disaster.
7) Setting up relief camps and transit camps.
8) Conducting relief and rescue operations.
9) To interact with the donor agencies for relief and rehabilitation.
10) DC is the central authority exercising emergency powers to issue directives to all the Depts. and to provide emergency response service.
11) Organizing Training and mock drills.
12) Providing information at District level and Local level through appropriate media.
13) Brief the media of the situations and day to day reports during the disaster.
14) To report the ground situations and the action taken by the District Administration.
15) The District Control Room would be placed under senior officers, who have already been trained adequately to handle disaster.
16) Control Room can have many service divisions with assigned duties. E.g. - Infrastructure, communication, agriculture, health, drinking water, etc., according to the need. This could be expanded.
17) The District Control Room should have all the facilities for effective communication and also anticipate link in case of system failure, ordinary and mobile phones, e-mail facility etc.
18) Organize post disaster evaluation.
19) Liaise with Site Operation Center. Site Operation Center is the center in the disaster site to be set up and an officer earmarked to be in charge. The Officer in-charge will conduct the relief, transit camp, feeding center, cattle camp, salvage

operations, disposal of the dead bodies and carcasses of animals, constructions of temporary sheds, with adequate facilities, medical relief, clearance of debris and repair of damaged infrastructures, etc.

20) Collect information and activate the district level department for handling assistance on need basis.
21) Maintaining the supply of essential commodities.
22) Preparing memoranda for getting resources for relief. 23) Giving adequate and right information to the people.

To make arrangement for -

1) Cordoning off the area affected by the disaster
2) Evacuation of people from the affected area
3) Recovery of the dead bodies and animal carcasses and their disposal
4) The medical care for the injured
5) Supply of food and water and restorations of water supplies
6) The constructions of temporary shelters, such as tents, metal sheets
7) Restorations of lines of telecommunication and information flow
8) Restoration of transport communications
9) Cordoning off severely damaged structures liable to collapse during and aftershocks
10) Temporary shoring of certain precariously standing buildings to avoid collapse and damage to other adjoining buildings
11) Immediate actions to prevent certain chain-reactions from developing such as, release of water from the reservoir behind a damaged dam to flooding of areas if the dam fail.

To ensure -

1) Control Rooms have been made functional immediately at the District level, Block level and Site level. (Immediately make public the phone numbers and the names of officers handling the control room)
2) search and rescue operations, activation of public shelters, etc. have commenced
3) the process of gathering information about the extent of damage caused by the earthquake
4) arrangement has been made for periodic press release
5) Liaison with particularly army/paramilitary forces (to minimize possibility of looting, ground control) done
6) Opening of relief center and supply of food and other basic requirements
7) Round the clock site control room has been set up, with officers pressed into service in rotation
8) Restriction of entry into affected area by public(issue pass)
9) Restoration of minimum communication network
10) Quick relief operations
11) Operationalization of shelters-established public shelters and new emergency shelters
12) Distribution of relief supplies
13) Health surveys-preferably by Village Officials
14) Provision of medical services particularly for the injured

15) Establishment of hygienic and sanitation conditions in the relief villages (use bleaching powder)
16) Restorations of basic transport facilities (movement of at least two wheelers)
17) Setting up of District level relief and rehabilitation cell with government and non-government representatives
18) Exercise for rapid damage assessment
19) Announcement of relief and rehabilitation policy/package
20) Full restoration of transport and communications network
21) Restoration of structural integrity of built environment, particularly roads, slopes, etc.

8.2 ROLE OF VILLAGE COUNCIL, YMA, MHIP, etc., IN DISASTER MANAGEMENT

The YMA, MUP or MHIP which has branches in all localities and villages throughout the district will be responsible for –

1) Maintaining of security and creating Help-Center at suitable place in the locality
2) Maintenance of law and order during evacuations
3) Helping in emergency evacuations
4) Containing panic behaviour, maintaining orderly movement towards community shelter and taking preventive steps to avoid injuries and accidents
5) Organizing recreational activities and encouraging self help
6) Helping the distribution of temporary construction, materials, salvage and restoration of water supplies, feeding centers, relief camps, etc.
7) Ensuing standards in sanitation and disposal of waste Counseling injured and panic stricken people.

8.3 ROLES OF DIFFERENT NGOs & RELIGIOUS INSTITUTIONS

PREPAREDNESS	REMARKS
A. Pre-Disaster Period	
1. IEC Campaign. 2. Preparation of Community Contingency Plan. 3. Formation of Village Disaster Preparedness by assigning particular duties of the Community. 4. Generation of Community Contingency Fund.	Shall keep direct link with Sub-Division and Block administration.
5. Mock Drill in different levels. 6. Training of the NGO/Village Volunteers on Rescue & First Aid/Ham Radio/VHF etc.	
B. During Disaster Period	
1. Advise people to leave for identified safe places with their belongings & domestic animals. 2. Evacuate people with the help of rescue kits which are locally available. 3. Assist Rescue Operation.	Shall keep direct link with Sub-Division, Block Administration /leading NGOs.
C. Post Disaster Period	
1. To assist in Relief Administration. 2. Arrangement of free kitchen. 3. Supply of safe drinking water. 4. Disposal of debris, educate on Health Care. 5. Cooperate road cleaning to assist local relief work 6. Rehabilitation activities in bringing normalcy.	Shall keep direct link with Sub-Division Administration/ District Administration.

8.4 PUBLIC AND PRIVATE INDUSTRIES AND CORPORATIONS

Public and Private Industries and Corporation have their key role in rehabilitation programme, apart from undertaking other relief operation in calamity stricken pockets. In the past events most of the PSUs have rendered their best efforts in restoring normalcy of the livelihood of the people with warm response.

The services of PSUs/Industrial Units shall be sought for, especially immediate post calamity relief operation and providing shelter for the distress, both temporary and permanently by the District Administration and shall also be implemented under the direct supervision of Project Director, DRDA.

8.5 ARMS AND PARAMILITARY FORCES

The services of Armed and Paramilitary forces shall be best utilized for:-

- Making best utilization of human resources relief & rescue operation.
- Assisting rescue and evacuation of people and settlement in safe sites.
- Immediate restoration of roads, communications and clearing obstacle.
- Assessing and identifying alternative route for transportation of relief articles.
- Assisting relief operation in maintaining law and order.

8.6 DISASTER SPECIFIC MEASURES AND APPROACHES

SECTOR	MITIGATIVE MEASURES	AGENCY RESPONSIBLE
INFRASTRUCRAL DEVELOPMENT	Improving Info., Edn., Communication activities, through posters, street play, volunteer's training, village task force training and mass rally.	Leading NGOs, BDOs
	Repair/Restoration of vulnerable structures and points on roads before the onset of monsoon.	BRTF, PWD, BDOs, VCs
	Ensure proper maintenance of shelter places constructed by any agency.	Block/ Village Committee/BDOs
	Ensure maintenance of proper functioning of electronic communication system	BSNL/Police Department/BDOs
	Immediate response for replacement/ repair of pipe water supply system	PHED, BDOs
	Proper maintenance of VHF system installed by Police Department	Head of office of concerned location

SECTOR	MITIGATIVE MEASURES	AGENCY RESPONSIBLE
HEALTH/ANIMAL HUSBANDRY	By way of IEC activities through posters, street play, village task force/volunteers training, etc.	By leading NGOs, BDOs
	Adequate stock piling of vaccines should be ensured for vaccination before disaster.	CMO, DVO, BDOs
	Training Programme for common people should be programmed for Health care, sanitation and first aid from village level to district level.	CMO, DVO, BDOs
LIVELIHOOD SECTOR	By way of IEC activities through walling posters, street play, village task force/ volunteers training, during normal period.	CMO, DVO, BDOs lead NGOs
	Reduce adverse effect on farmers by advising and providing alternate cropping pattern, flood resistance crops, drought resistance crops, short duration paddy seeds, etc. and ensuring crop insurance.	District Agriculture Officer, District Horticulture Officer, BDOs
INSURANCE	By way of IEC activities through walling posters, street play, village task force/ volunteers training, during normal period.	CMO/DVO/NGOs
	Emphasizing on insurance coverage of livestock, crops, industry, workshop, etc.	DAO, DHO,BDOs, NGOs
	Creating awareness among general public during normal time to insured human life.	Leading NGOs, BDOs

CHAPTER 9

STANDARD OPERATING PROCEDURES (SOP) FOR ROAD ACCIDENT IN MAMIT DISTRICT

In Mamit District, Road Communication is the most important because of the absence of other means of transport and road transport is the sole life-line of Mizoram. In the meantime, roads in Mamit District seem to be one of the most risk prone with narrow and deep gorges along the rugged hills of uneven height. Despite all these drawbacks, vehicle population in the state has, however, dramatically increased during the last decade. According to District Transport Officer's report, there are 3949 vehicles of all types registered in the District. Occurrence of road accident in a hilly state like Mizoram and Mamit District is unavoidable. These fatal accidents are mainly because of the following generic reasons:-

(i) Poor road condition
(ii) Drivers failures/carelessness in driving
(iii) Poor vehicle maintenance
(iv) Lack of safety belts and helmets
(v) Poor emergency services
(vi) Absence of adequate pedestrian's amenities.

In order to cope with this kind of accident involving high casualties, Standard Operating Procedures (SOP) for Task Force comprising various departments, are incorporated in this Sub-Plan. In the event of road accident, these SOP will ensure quick and effective performance of functions and will act as an easy reference for co-ordination of response action.

9.1 SOP FOR TASK FORCE

The SOP is meant to ensure quick and effective performance of function and easy reference for coordination of response actions.

1) Civil Administration: The District Magistrate/Chairman, District Disaster Management Committee will be over-all in-charge of the activities for management of this kind of accidents, as soon as they receive occurrence of such accidents, the District Magistrate or the concerned Sub-Divisional Officer or other Magistrates will reach the place of accident for coordinating relief operations. They will also maintain close contact with the District Control Room through any means of communication available on the spot and coordinates responses of different agencies on need basis.

2) Police Department: Under the operational control of District Magistrate/ Chairman, Disaster Management Committee and supervision of Superintendent of Police in the District, Police Department will follow the under mentioned procedures. On receipt of information regarding road accident, a responsible police officer with adequate personnel will immediately rush to the place of accident, and:-

a) Look for the survivors and rescue the injured or those trapped under the vehicle.
b) Initiate codal formalities/legal proceedings required under law-like inquest, sending of dead body for postmortem, etc.

c) Arrange first-aid to the injured people in the absence of Medical Relief Team.
d) Ensure security of the properties of the victims and maintenance of law and order
e) Take up traffic management at the place of accident.
f) Start investigation of offences, if any.

***Medical Services**:* As soon as they received information about occurrence of road accident involving high casualties, doctors, nurses or paramedical staff of the nearest health center should rush to the place of accident to discharge the responsibilities for providing the immediate medical relief. At the same time, ambulance should be made available for transportation of victims from the side of accident to the nearest Hospital and these ambulances should also be equipped with the basic life maintenance support drugs and equipment. All the staff of medical services engaged in relief operation will seek instruction from District Magistrate/ District Control Room through District Medical Superintendent/Chief Medical Officer.

3) Information and Public Relation Department: Under the supervision of District Magistrate or Chairman, DDMC, Information and Public Relations Department shall be the main source of information/feeder where in all necessary assistance in connection with information about victims receiving treatment, their whereabouts, list of the dead etc. will be collected and disseminated. The Department will also make P.A. System available at all times during relief operation and other Departments having radio communication like P&E, PWD, etc. will also pass latest information in liaison with the Control Room.

4) Transport Department and Infrastructure Department: Transport Department will provide additional requirements of transportation in case the number of casualties is high. The Nodal Officer responsible to this kind of accident should also make available list of passengers with full particulars, etc. Besides, other infrastructure department like PWD will send machineries like JCB, excavator, recovery van, mobile crane, etc. to support search and rescue operation, if and when called for.

5) NGOs/Voluntary Organizations: It has been experienced in the past that in the event of fatal accident, members of NGOs like YMA used to carry highly commendable service to the victims even before the Civil Administration came up for relief operations. As usual practice, in the event of fatal accident, members of NGOs will quickly send necessary information about the accident to the nearest Civil Administration, nearest Police Station and Health Center through any means of communication so that Civil Administration and NGOs will be able to keep in touch for effective relief operations.

9.2 SOP FOR POLICE

1) Operational Task and Control: Police is the leading agency, which works under operational control of the District Superintendent of Police. Being a key response organization in the District, it is vital that this organization remains in a

state of preparedness to ensure its general readiness to respond to disaster situation. In view of hazard scenario in the district, the Police Department will be responsible for the following functions:-

a) Search and Rescue and evacuation of persons on occurrence of a disaster;
b) First-aid to the injured people in the absence of medical relief team;
c) Security of the property and law and order maintenance in effected area;
d) Traffic management leading to affected area;
e) To ensure enforcement of Essential Commodity Act;
f) Investigation of offences.

2) Operation Coordination: The Superintendent of Police, Mamit will immediately instruct all the Police Stations in the District to communicate the message to the Police in their respective areas. A radio announcement for the same can also be done for effective communication. The District Superintendent of Police will also work out a deployment plan for the Police keeping in view the disaster situation and arrange transportation for the Police to their duty point.

3) Direction and Coordination:-

a) On receiving the alert message for readiness from the District Control Room, S.P Mamit will immediately put on alert the Police on duty and the key officials of his agency. Security of property, wireless communication availability, immediate assessments of the situation are to be done immediately.
b) Once the combat operations have started, the District S.P. would be required to assess the activation and operational procedure followed by the Department.
c) The senior most executive Magistrate present on the spot will take decisions regarding assignment of task to police team for various operations in the affected areas.
d) The Police team will send task completion report to the District Magistrate through District Control Room as soon as the task is over. This report will indicate the number of injured people and the number of people still trapped inside the debris.

On completion of all tasks relating to search, rescue and evacuation assigned to the Police by the District Magistrate, the S.P., Mamit will take a briefing session and submit a briefing report to the District Magistrate.

9.3 SOP FOR HEALTH & FAMILY WELFARE DEPARTMENT/ HEALTH SERVICES& HOSPITAL AND MEDICAL EDUCATION

Major disaster like earthquakes results in injuries to people or may cause epidemics. The Health & Family Welfare Department/Medical & Hospital Administration Department is responsible for not only preventing the outbreaks of epidemics but also for providing immediate medical relief to the affected people in a disaster. The Department works under some constraints even during normal times because of the population pressure, poverty and the resource crunch with the Department. Therefore, the Standard Operating Procedure for the Department seeks to ensure that Department is able to discharge the responsibilities for providing the immediate medical relief and for preventing outbreak of the epidemic in the affected areas despite resource constraints experienced by it during normal times.

1) Preparedness Action: The Department will ensure that all the Medical Doctors are aware about the responsibilities of the department in case of a disaster and all the manpower of the department, including paramedic staff, are sensitized regarding the need for maximum efficiency during disaster situation. This should be achieved by organizing orientation training for the staff every year.

The Department should also identify sources from which it can procure the additional equipment and materials on short notice to supplement its resources. The inventory of all such resources should be maintained in the resource database. This database should be validated and updated every year.

The Department should train local volunteers in preventive medicine in the area identified as vulnerable to floods and trained for first-aid in areas identified as vulnerable to earthquakes.

Chief Medical Officer (CMO) of Mamit District will send preparedness report to the Deputy Commissioner for rural areas. The Department is responsible for providing the medical relief to the people affected from flood or earthquake and is also responsible for the prevention of outbreak of epidemics during preparedness. Followings points should be noted:-

(i) Surgical packs should be assembled and sterilized. A large enough number should be sterilized to last four to five days. The sterilized surgical packs must be stored in protective cabinets to ensure that they do not wet. Covering the stock with polythene is recommended as an added safety measure.
(ii) The emergency electrical generator should be check to ensure that it is operational and that a buffer stock of fuels exists.
(iii) All valuable instruments such as surgical tools, ophthalmoscopes, portable sterilizers, CGS, dental equipment, etc. should be packet in protective covering and stored rooms considered being the most damage-proof.
(iv) All fracture equipment should be readied, if surgery is to be performed following the disaster, arrange for emergency supplies of anesthetics gases (usually supplied on a daily basis).
(v) Stocks of equipment and drugs which are likely to be most needed after the disaster should be checked. This can be categorized generally as:-

a) Drugs used in treatment of cuts and fractures such as tetanus, toxoid, analgesics and antibiotics.
b) Drugs used for the treatment of diarrhoea, water-borne diseases and flu (including oral dehydrating supplies).
c) Drugs required for treating burns and fight the infections.
d) Drugs needed for detoxification including breathing equipment.

The Department should also identify the trained manpower, the equipment and the material required for discharging the responsibilities assigned under the District Emergency Management Plan and prepare an inventory of the same.

It should also try to identify the external sources in the community and the market for procuring the same with the assistance of the District Standing Committee on Disaster Management. The CMO should ensure compliance of all the points mention above and send a compliance report to the Deputy Commissioner in May every year.

2) Operational Tasks and Control: The Department is responsible for providing efficient and quick treatment, and preventing outbreak of epidemics. On receipt of a warning of an impending disaster from the District Control Room, the CMO will immediately put his doctors and the paramedical staff on alert for preventing outbreak of epidemic. It will constitute medical teams for the survey in the affected area and for decontamination of drinking water sources.

In case of an earthquake all the staff of the Department will immediately report for duty in the concerned hospital or health center, as the case may be. The medical staff will immediately try to reach the affected area and provide medical relief. The CMO will try to mobilize additional manpower from the area not affected by earthquake to supplement the local resources of the affected area.

In case of a disaster the CMO can request the services of the medical officers working in Nursing Homes, private doctors and nurses and during the period of such requisition those medical officer/nurses can work under the administrative control of CMO.

CMO will receive the message from DCR and immediately put his doctors and the paramedical staff on alert. All the staff will seek instruction from D.C. through CMO. The CMO will call doctors using names and address list of doctors in his office. An announcement to this effect can be broadcast through PA system/FLS, etc.

3) Direction and Coordination:-

(i) Determine type of injuries/illness expected and drugs other medical items required, and accordingly ensure that extra supplies of medical items be obtained quickly. Provide information to all hospital staff about the disasters, likely damages and effects, and information about ways to protect life, equipment and property.

(ii) Discharge all ambulatory patients whose. release does not pose a health risk to them. If possible, they should be transported to their home areas.

(iii) Non-ambulatory patients should be relocated to the safest areas within the hospital. The safest rooms are likely to be:-
   a) One ground floor
   b) Room in the center of the building away from windows
   c) With concrete ceilings

(iv) Assess the level of medical supplies in stock, including:-
   a) Suture materials
   b) Surgical dressings
   c) Splints
   d) Disposable needles and syringes
   e) Plaster rolls
   f) Local antiseptic

(v) Request resources identified to immediately dispatch of supplies likely to be needed, to hospitals, on an emergency priority basis.

(vi) Fill hospital water storage tanks and encourage water savings. If no storage tanks exist, water for drinking should be drawn in clean containers and protected.

(vii) Prepare an area of the hospital for receiving large number of casualties.

(viii) Develop emergency admission procedure (with adequate record keeping)

9.4 TASK ALLOCATION (FOR EARTHQUAKE)

CMO will establish work schedule to ensure staff are available for inpatient needs. He will organize in house emergency medical teams to ensure that adequate staff is available at all times to handle emergency casualties. He will set up teams of doctors, nurses and dressers for providing services at disaster sites. Once the task is allocated, the team will follow below mentioned procedure.

1) Sorting of Casualties:-

i) Quick sorting of Casualties (triage):-
   a) Priority I - Needing immediate resuscitation
   b) Priority II - Needing immediate surgery
   c) Priority III - Needing first-aid and possible surgery
   d) Priority IV - Needing only first-aid.

ii) Actions:-
   a) Priority I will be attended in Emergency/Casualty Dept.
   b) Priority II will be transferred immediately to O.T.
   c) Priority III will be given first-aid and admit if bed is available
   d) Priority IV will be given first-aid and discharged.

(In some cases brought dead cases are categorized as priority V.)

2) Materials and Equipment: In the absence of a clear indication from the field, a minimum kit comprising of the following materials and equipment should be carried by the advance party to the disaster site:-

(i) Equipment for paediatric intravenours use
(ii) Tracheal cannula
(iii) Set of laryngoscope for infants, children and adults
(iv) Endotracheal tubes, No 7 Murphy
(v) Endotracheal tubes, No 8
(vi) Nasogastric probes
(vii) Oxygen masks, for adults & children
(viii) Large scissors for cutting bandages
(ix) Plastic linings
(x) Stethoscope

Sterilization Unit Supplies:-

(i) Tracheostomy set, Thoracotomy set
(ii) Venous dissection set
(iii) Set for small sutures
(iv) Bottles for drainage of thorax
(v) Hand scissors, No 4
(vi) Syringes (disposable)x 2cc, x 10cc, x 50cc

3) Ambulance Fleet: The ambulance will carry the following equipment:-

(i) Oxygen, mask and gloves
(ii) Stretchers and blankets
(iii) Emergency first aid kit
(iv) Suction equipment
(v) Intravenous equipments

(vi) Supplies for immobilizing fractures
(vii) Drugs for emergency use
(viii) Minimal equipment for resuscitation maneuvers

Each ambulance should be staffed at least a Doctor, a nurse, a stretcher-bearer, and a driver. The medical and paramedical personnel should experience in procedures for the management of patients in intensive care units.

4) Operation Completion Report: The CMO will then report to the Deputy Commissioner through Disaster Emergency Control Room as soon as the task is over. The task completion report will indicate the number of injured people, the number of injured and dead.

On completion of all the tasks relating to medical relief assigned to the Health Department by the Deputy Commissioner, the CMO will take a brief session with his doctors and submit a briefing report to the Deputy Commissioner.

9.5 SOP FOR PUBLIC WORKS DEPARTMENT

The Public Works Department (PWD) has the responsibility for the construction and maintenance of Government buildings, public roads and bridges in the State. These infrastructures are required not only for the general economic activities in the area, but also for functioning of the Government. Below mentioned are some the most important SOPs for PWD.

1) Preparedness Action: For ensuring the availability of these infrastructures even in case of a disaster, the PWD should ensure that the construction of all buildings, roads and bridges take into account the hazardous scenario already mentioned. Alignment of all the major roads of the district should be as far as possible outside the flood clout area so that these roads remain operational even during the floods. All the public buildings and bridges should confirm to appropriate standards to ensure that they survive the possible earthquake in the district.

The Department should take immediate measures for the retrofitting of all government buildings under its charge for making them seismic resistant. The Department should ensure that all officers of the rank of SDOs or above are make familiar about the responsibilities of the department and the resources that may be required for discharging his responsibility in case of a disaster. This should be achieved by organizing orientation training to all such officers once every year.
The Department should identify the equipment at the material that may require for discharging the responsibilities assigned to it in case of a disaster. It should also work out the availability of the same with the Department and identify the external resources for the same and work out arrangement for procuring the same in case of a disaster.

The Department should also carry out a stock verification of the equipment and materials available with it, required for its responsibility under the plan every year. It should validate and update the resource database also every year. It will also identify the source in the community and the local market from which additional resources may be obtained for performing the responsibilities of the Department with the assistance of the DSCDM and work out the arrangements for procuring the

same. The Executive Engineer should ensure compliance of all the points mentioned above and send compliance report to the Deputy Commissioner in general every year.

2) Operational Details: The Department will be responsible for performing the following tasks:-

(i) Temporary construction of diversion and other structures to ensure road communication in case of disaster
(ii) It will establish temporary relief centers on the direction of the District Magistrate for the affected people.
(iii) Debris clearance to support search and rescue operation.
(iv) Identification of unsafe buildings.
(v) Assessment of damage to the buildings.

3) Operation Control: The Executive Engineer will immediately try to get information regarding the roadways available for reaching the search and rescue team and the relief material to the affected area and will take immediate action for construction of the diversion and other structures for communication of the affected area. The Executive Engineer will also nominate SDO for damage assessment of private buildings in consultation with the Deputy Commissioner and shall also constitute survey teams for identification of unsafe buildings both private and Government which need to be dismantled in the interest of the public safety and send a report of the identified unsafe buildings to the Local Executive Magistrate through the local Police Station.

4) Resource Available: The Department will prepare the resource database for the essential manpower, equipment and material resources available within the Department after identifying the needs of the disaster time.

5) Activation Guidelines: In case of occurrence of disaster, all the Officers of the Department of the rank of SDOs and above will immediately report with the District Control Room (DCR) through the Executive Engineer and seek instruction.

6) Operation Completion Report: After completion of all the task assigned to the Department relating to immediate response, the Executive Engineer will take a briefing session with all officers of the rank of SDOs and above and send a brief report to the D.C. which will also include an expenditure statement including the debris removal and establishment of the relief centers and construction of the diversion for ensuring communication in the affected areas.

The Executive Engineer will also prepare a preliminary proposal indicating estimates of different construction works for restoring the infrastructure in the affected area and send it to the Department through the Deputy Commissioner.

9.6 SOP FOR PUBLIC HEALTH EGINEERING DEPARTMENT

Public Health Engineering Department has the responsibility for the construction and maintenance of water supply in the state. This infrastructure is required for not only general economic activities in the area, but also for the

performance of the task function of the government. These infrastructures will also be required for enhancing water availability to the disaster affected areas and relief centers.

1) Preparedness Action: For ensuring availability of these infrastructures even in case of disaster, the PHED should ensure that the construction of all water supply infrastructure, take into account the hazardous scenario in the District. The entire water supply infrastructure should conform to appropriate BIS codes ensuring that they survive the possible earthquake in the District.

The Department should ensure that all Officers of the rank SDO or above are made familiar about the responsibilities of the Department in the District Emergency Management Plan and the resources that may be required for discharging his responsibility in case of a disaster by organizing orientation training to all such officers every year.

The Department should identify the equipment and materials that may require for discharging the responsibilities assigned to it in case of disaster. It should also work out the availability of the same with the department and identify the external resources of the same and work out arrangement for procuring the same in case of disaster.

2) Operation Details: The Department will be responsible for temporary restoration of water supply to affected area. It will also establish electric supply at relief centers on the direction of the Deputy Commissioner for the affected people.

3) Operation Control: The Executive Engineer will immediately try to get information regarding the power supply to the affected area and will take immediate action for restoration if required. The Executive Engineer will also constitute survey teams for identification of damaged infrastructure. Also, the Department will prepare the resource database for the essential manpower, equipment and material resources available with the department.

4) Activities guidelines and task allocation: In case of occurrence of disaster, all the officers of the department of the rank of SDOs and above will immediately report with the DCR through the Executive Engineer and seek instructions. The Executive Engineer (E.E) will allocate the task after consultation with DDMC Chairman.

5) Operation Completion Report: After completion of all the tasks assigned to the Department relating to immediate response, the E.E. will take a briefing session with all officers of the rank of SDO and above and send a brief report to the D.C. which will also include an expenditure statement including the debris case and establishment of the Centers and construction of the diversion for ensuring communication in the affected areas. The E.E. will also prepare a preliminary proposal indicating the estimates of different constructions works for restoring the infrastructure in the affected area and sent it to the Department through the Deputy Commissioner.

9.7 SOP FOR P&E DEPARTMENT

The Power & Electricity Department has the responsibility for the construction and maintenance of electric supply in the State. These infrastructures are required for not only the general activities in the areas, but also for the functioning of the Government and also be required for ensuring availability of electricity to disaster affected area and relief centers. Therefore, this SOP is meant to ensure quick and effective response and easy reference for coordinating the response actions.

1) Preparedness Action: For ensuring availability of these infrastructures even in case of disaster, the P&E Department should ensure that the construction of all electric supply take into account the hazardous scenario. The entire electric supply infrastructure should confirm to appropriate BIS codes ensuring that the possible earthquake in the District.

The Department should ensure that all officers of the rank of SDOs or above are made familiar about the responsibilities of the department in District Disaster Management Plan and the resources that may require for discharging his responsibility in case of a disaster. This should be achieved by organizing orientation training to all such officers every year.

The Department should identify the equipment and the material that may require for discharging the responsibilities assigned to it in case of disaster. It should also work out the availability of the same with the department and identify the external resources of the same and work out arrangement for procuring the same in case of disaster.

The Department should do a stock verification of the equipment and material available with it. It should validate and update the resource database. It will also identify the source in the community and the local market from which additional resource may be obtained for performing the responsibilities of the department with assistance of DSCDM and work out the arrangement for procuring the same.

The Executive Engineer should ensure compliance of all the points mentioned above and send a compliance report to the Deputy Commissioner in general every year.

2) Operational Detail: The Department will be responsible for temporary restoration of electric supply to affected area and establishment of electric supply at relief centers on the direction of the District Magistrate for the affected people.

3) Operation Control: The Executive Engineer immediately will try to get information regarding the electric supply to the affected area and will take immediate action for restoration of it. The Executive Engineer will also constitute survey teams for identification of damaged infrastructure.

The Department will prepare the resource database for the essential manpower, equipment and material resources available with the Department, Activities guidelines and task allocation.

In case of occurrence of disaster, all the Officers of the department of the rank of SDOs and above will immediately report with the DCR through the Executive Engineer and seek instructions. The Executive Engineer will allocate the task after consultation with DDMC Chairman.

4) Operation Completion report: After completion of all the tasks assigned to the Department relating to immediate response, the E.E. will take a briefing session with all officers of the rank of SDO and above and send a brief report to the DC which will also include an expenditure statement. The E.E. will also prepare a preliminary proposal indicating the estimates of different construction works for restoring the infrastructure in the affected areas and sent it to the Department through the Deputy Commissioner.

CHAPTER 10

COMMUNITY TASK FORCE/DISASTER MANAGEMENT TEAMS

Community or the local functionary is the most important mechanism in disaster management. Community Based Disaster Management (CBDM) is the latest methodology that is successfully experimented in India. CBDM is basically concerned all about with community disaster awareness initiatives, which is a comprehensive method to inform and train the local residents about how to prepare to cope up with natural as well as human induced disasters.

10.1 FUNCTIONS AND DUTIES OF DIFFERENT TEAMS

1) **First Aid and Medical**: This team will attend to all the casualties in the event of any disaster. They will be provided with First Aid Kits and they will be trained by Health Department.
2) **Search and Rescue:** This team will also perform evacuation besides search and rescue operation. They will undergo training on; i) Drowning, ii) Firefighting, and iii) Search and Rescue of collapse building victims.
3) **Shelter Management**: This team will be responsible for identifying building or find any other means for accommodation of homeless people due to disaster.
4) **Food and Water Management** - This team will ensure that sufficient food stuff and water is available for emergency response. They will be responsible for fair distribution of food and water during relief works.
5) **Relief Co-ordination** - This will operate collection and distribution of all other collection and distribution of all other collection and distribution of all other relief materials except food and water supply.
6) **Information and Damage Assessment** - This team will act as a warning group for any eminent disaster. They will be trained to understand radio warnings and act fast to disseminate the same throughout the village. They will also conduct on the spot assessment of the damage sustained by the village and report their findings through a specified format to the VDCM who will in turn forward the same to the BDO/SDO/DC.

10.2 SOP FOR COMMUNITY TASK FORCES/DISASTER MANAGEMENT TEAM

1) Warning and Communication Group

Pre-Disaster:-

a) Ensure that communication equipment are in working condition.
b) Carry a hazard map demarcating the most vulnerable/safe areas and households.
c) Ensure an emergency contact directory with all relevant numbers.

On receipt of warning:-

a) Assemble in a central location and listen to radio together to determine the situation.
b) Pay attention to local warnings and their interpretation.
c) Crosscheck the warning received from radio with the nearest control room.
d) Disseminate the warning using megaphones/mikes sirens, door-todoor, etc.

During Disaster:-

Remain in safe shelter and provide people with regular updates.

After a Disaster:-

a) Get the de-warning from District Control Room and disseminate.
b) Disseminate precautionary information on post disaster health hazards and remedies.
c) Give immediate assessment to the authority on damage, massive casualty etc.
d) Guide the search and rescue team with geographic information and high damage.

2) Evacuation and Temporary Shelter Management group

Pre-Disaster:-

a) Monitor the infrastructure needs of the community such as roads, schools etc.
b) Co-ordinate with the local authority to identify/location for setting relief camps.
c) Check for plaster cracks and damp patches in safe shelters that require repairs.
d) Stock dry food and other safe food stocks, fuels, etc.
e) Ensure that the shelters are easily approachable.
f) Ensure that the shelters are cleaned regularly.

On Receipt of warning:-

a) Evacuate people from their homes and clear the area as soon as possible.
b) Moves stocks of dry food, fuels and medicines to the shelter.
c) Organize space to house evacuee families.
d) Help the old, disabled, pregnant women, children etc. to settle in the shelter.
e) Ensure the strict sanitary practices are adhered to in the shelter.
f) Register the evacuees and give them identification slips/cards.

During Disaster:-

a) If caught inside stand with the backs against a strong indoor wall.
b) If outside during disaster, run to an open space away from trees, buildings, etc.
c) If in a moving vehicles, stop and stay inside.

Post Disaster:-

a) To ensure that evacuees are fed and housed until the de-warning is received.
b) Organize tents and materials for constructions of temporary shelters.
c) Collect stocks of food, clothing and fuel etc.
d) Clean and disinfect the shelter all throughout the stay and before leaving.
e) Help NGOs and their engineers (if any) in conducting meeting and rehabilitation activity.
f) Monitor the rehabilitation and reconstruction process of the community.

3) Damaged Assessment Group

Pre-Disaster:-

a) Carry a hazard map demarcating the most vulnerable/safe areas and households.
b) Prepare and store sufficient number of assessment formats required.

During Disaster:-

a) Remain in the safe shelters and provide the evacuees with regular updates.
b) Call emergency meeting of the group and assign duties and area of assessment.

After Disaster:-

a) Give immediate assessment to the authorities on damage, missing, casualty, etc.
b) Give detailed report assessment to the authority.
c) Guide the search and rescue team with geographic information

4) Search and Rescue Group

Pre-Disaster:-

a) Familiarize them with existing response mechanisms of the government.
b) Arrange for the necessary S&R equipment for Govt. and Pvt. Agencies.
c) Use the equipment properly and maintain it well.
d) Have a detailed map of the community indicating vulnerable areas/safe areas.
e) Organize themselves into pairs (buddy system).
f) Prepare back up teams ready for rotation of personnel.

On receipt of warning:-

a) Organize a meeting of the S&R members
b) Contact the administration for detailed information.
c) Identify the vulnerable areas in which their help is required and decide the action plan.
d) Gather the equipment required.
e) Assist the evacuation team in moving people to the safe shelter.
f) Co-ordinate with the First-Aid team to provide primary health care.
g) Shift the seriously injured persons to hospital/PHC.

Post Disaster:-

a) Conduct a general hazard assessment to determine the possible hazards.
b) Make a quick head and maintain a list of missing persons.
c) Clear debris and fallen trees in order to reach trapped victims.
d) Communicate with the sub-division and District levels on additional assistance.
e) Co-ordinate closely with the first aid team for primary health care to rescued victims.
f) Co-ordinate with the evacuation team to shift rescued persons to open space/ tents.

5) First Aid and Trauma Counseling Group

Pre-Disaster:-

a) Maintain a list of pregnant women, infants, disabled, sick, old etc.
b) Keep First Aid Kits ready and ensure that expired drugs are replaced with new ones.
c) Distribute basic medicines and demonstrate their use.
d) To keep stretchers/local alternative ready to carry injured people.

On Receipt of Warning:-

a) Ensure that contents of all First Aid Kits are satisfactory.
b) Move into the safe shelter.
c) If caught inside, stand with their backs against a strong indoor wall.
d) If outside during the earthquake, run to an open space (in EQ).
e) If in a moving vehicle, will stop and stay inside (EQ).

Post Disaster:-

a) Attend to the injured people.
b) Counsel the traumatized people.
c) Listen to and calm the victims affectionately and patiently.
d) Help doctors and paramedics shift the ill and injured to hospitals.
e) Isolate the cases with infectious diseases and prevent them from spreading.
f) Provide preventive medication if there is danger of cholera, dysentery, etc.

6) Relief Coordination Group

Pre-Disaster:-

a) Familiarize with damage and needs assessment formats.
b) Assess the estimated need of relief materials.
c) Stocks material like ropes, bamboos, tarpaulin etc. in the safe shelter identified.
d) Mobilize stocks of grains and medicines from government, NGOs, etc.
e) Keep a record of stock available and maintain and dispatch them as required.
f) Always be impartial and sincere to the duty the victims.
g) Be transparent in the accounting and stocks by giving timely correct information.

On receipt of Warning:-

a) Move to the safe shelter and coordinate with the evacuation and temporary shelter management team to move stocks of food, water and so on to the safe shelter.
b) If caught inside, stand with the back against a strong indoor wall (in EQ).
c) If caught outside, run to an open space away from trees, buildings and electric lines (in EQ).
d) If caught on a moving vehicle, stop and stay inside (in EQ).

Post Disaster:-

a) Conduct a complete damage and need assessment.
b) Based on a preliminary need assessment, communicate preferences to the District Control Room as follows:-
    - The size, scope of the relief items required likely duration of the distribution of relief material.
    - The estimated number of people affected local capacity, resources and external help.
    - The immediate needs of the victims.
c) Communicate the assessment findings to other task force groups and local authorities.
d) Establish a distribution center or community kitchen.
e) Ensure that food and other materials are distributed in an equitable manner.
f) Priorities the elderly persons, pregnant women, children etc.
g) Maintain a list of the households receiving assistance.
h) Work closely with the communication group to stay in touch with control room.
i) Organize a meeting to evacuate the experience, internalize learning.
j) Make a physical inventory for stocks when external assistance arrived.
k) Keep the undistributed relief material in a safe place/warehouse and preserve it.

7) Water and Sanitation Group

Pre-Disaster:-

a) Ensure sufficient supply of chlorine tablets, lime powder, etc. for disinfecting drinking water.
b) Ensure sufficient water is stored in proper tanks and jerry cans in safe shelters.
c) Ensure that there is list of contact person at PHE for assistance.
d) Raise awareness among the community about how to treat water.
e) Set a minimum standard in advance for distribution of water in emergency.
f) Ensure sufficient number of raised platforms, deep tube wells, etc., are available.
g) Help local administration to construct temporary sanitary facilities.
h) Contact PHED for assistance in acquiring diesel engines and generators.

On receipt of warning:-

a) Assess the drinking water supply and available water resources
b) Arrange alternate power supply by procuring generators.
c) Ensure that the sanitation facilities at the safe shelter are in working condition.
d) Move to the safe shelter for one‘s own safety.

Post Disaster:-

a) Make immediate repairs of broken or burst pipes.
b) Coordinate with PHED/LAD for procuring water tanks, if required.
c) Disinfect large water bodies with lime powder.
d) Work with the Sanitary Inspectors in obtaining water samples.
e) Ensure that sufficient water is available in bathing units and toilets at relief camps and is distributed in an equitable manner.
f) Demarcate areas for safe excreta disposal around the relief camp.
g) Guide the local authorities to construct latrines away from ground water sources.
h) Co-ordinate with the local authority to construct sufficient bathing cubicles for female.
i) Spray bleaching powder and other disinfectants to prevent infectious disease.
j) Ensure that solid waste is put in refuse containers or buried in a refuse pit.
k) Ensure that there are no medical wastes such as needles, drugs, etc., lying around.
l) Coordinate with the first aid team to prevent water borne diseases.
m) Construct temporary soak pits for on-site disposal of wastewater.
n) Coordinate with the search and rescue team for disposal of carcasses.
o) Ensure that dead bodies are registered and cremated after legal/religious formalities.

CHAPTER 11

PREPAREDNESS AND RESPONSE

11.1 PREPAREDNESS AND RESPONSE

Emergency Operations Center (EOC)	i) Setting up of Emergency Operation ii) Centers at the State, District Block and iii) Village levels. iv) Multi-hazard resistant construction. v) Communication linkages Mobile EOC for onsite disaster. vi) Management information.	DM&R /DC/BDO/VC
Crisis Management Group	i) State Crisis Management Group ii) District Crisis Management Group. iii) Block Crisis Management Group. iv) Village Crisis Management Group. v) Training of Crisis Management Groups.	DM&R/Home/Health/ RD/BRTF. DM&R/DC/Police/Health/Medical Services/PWD/P&E DM&R/DC/BDO/ Police/Group YMA. BDO/VC/YMA/ATI
Resource Inventory	Collection of data on resources and maintenance of rescue inventory and update at the District, Block and Village level.	DC/BDO/VC
State SAR Team	i) Identification and formation of Search & Rescue teams at the State level and arrangement of their specialized training. ii) Procurement of equipment. iii) Training of trainers. iv) Training of Teams.	DM&R/Police/MRHG Police/MRHG/DM&R/ Police Police/MRHG/DM&R/ ATI
Disaster Management Teams at the State/District /Block and Village Level	*State:* One team to be formed as Master Trainers. *District:* One to five (5) members team at each District as trainers. *Block:* One to five(5) Members team as trainers. Village: 8-10 members for each team as given below.	DM&R/ATI DC/DDMC BDO/BDMC VC/VDMC
Incident Command System	i) Designated nodal training center. ii) Putting in place protocol SOPs for ICS.	All/Police
Emergency	Department Agencies which	Medical/PHE/P&E/
Support Function Plan	perform emergency support functions to draw up and constitute ESF plans.	PWD/ DM&R

11.2 EARLY WARNING SYSTEMS

State of the art sensors to be set up for Warning Protocols	i) Installation of Scientific equipment for early detection of hazard. ii) Communication linkages for early warning. iii) Districts to set up protocols for communication of early warning to the community.	MZU/Geology & Mineral Resources wing/Sc. & Tech. MPRO/PWD/PHE/ P&E

11.3 HUMAN RESOURCE AND DEVELOPMENT & CAPACITY BUILDING

Strengthening of ATI Mizoram Youth Organization	i) Provision of technical faculties in the discipline of Geology and Civil. ii) NCC, NSS, Scouts & Guides, Youth Adventures to include disaster response, search and rescue in their training prog.	
Masons	Training of Mason for safe construction practices.	ATI/SIRD
School Curriculum	Include DM Awareness	MBSE
Awareness Generation	i) Design and develop a communication strategy for awareness campaign. ii) Use audio, visual and print medium to implement the awareness campaign.	I&PR/DM&R
	iii) Development of resource materials on mitigation, preparedness and response.	
NGOs	i) Strengthening the NGOs capacity by equipment imports at the State level. ii) Co-opted into the Planning process response mechanisms all levels. iii) Build their capacity and utilize their services as facilitators at the community level.	
Corp. Sectors Contingency Plan	Sensitization and development of SOPs for them.	ATI/Corporate Bodies

11.4 SCHOOL SAFETY

The District Disaster Management Plans (DDMPs) need to incorporate concerns and solutions for addressing safety related gaps in all the schools in the district and their surrounding environs. Moreover schools often serve as emergency shelter locations in the immediate aftermath of a disaster. Hence the DDMAs need to make sure that school safety is given due attention in the DDMPs.

District Disaster Management Authorities (DDMAs):

- Accept responsibility for ensuring the safety of school children and therefore actively engage with DDMAs in seeking collaboration and technical solutions for promoting safety.
- Engage with DDMAs in preparation of DDMPs to provide inputs on school safety issues. Also ensure in the DDMP that schools are free for continuing educational activities as soon as possible in the immediate aftermath of a disaster.
- Reinforce the responsibility of school management to take prevention, mitigation, preparedness and response actions with regard to safety of children and teachers.
- Implement strategies, policies and regulations for ensuring that all new schools/ classrooms being constructed are disaster resilient and child friendly.
- Allocate resources for retrofitting of schools to make them disaster risk resilient and child friendly.
- Instruct DIET to include school safety training in the curriculum for training of teachers. Work with other line departments to ensure that their resources when applied in and around educational institutions, are designed with a 'safety' lens.
- Grant authorisation to only those schools that comply and continue compliance with safety norms laid out in the building codes and directives of the Hon'ble Supreme Court of India in relation to safety of children.
- Facilitate training of Master Trainers from each District Institute of Education and Training for training of teachers and students to engage them on school safety issues

SCERT and DIETs:

- School safety agenda at the school : Acknowledge that safety is an important issue that requires sensitization and training of teachers
- Develop interesting modules for training of teachers on issues of disaster risk and how it can be mitigated. These need to be integrated in the ongoing programmes pertaining to training of trainers and teachers.
- Develop child friendly and intellectually stimulating content on the issue of disaster risk for inclusion in the curriculum.
- Train school safety focal point teachers
- Develop modules for training of peer trainers at the school level
- Block Education Officer to orient teachers and Principals on issues of school safety
- Ensure that the school authorities create space in the school curriculum and timetable for disaster risk reduction training and education in all the classes.

- ➲ Ensure that schools allocate time for follow up actions on school safety at least once a week.
- ➲ Include indicators on safety as part of routine monitoring
- ➲ Support schools to include safety issues in the School Development Plans.
- ➲ Promote cross-learning between schools with regard to their initiatives for promoting safety

General training for students and school staff:

Delineating their expected roles, procedures and responsibilities in relation to any emergency, this training would include strengthening understanding of:

a. Potential disasters that may affect the school community;
b. Warning signals, emergency and crisis instructions and mitigation actions for different levels of response.
c. Evacuation routes, and knowledge of safe spaces and shelter locations; d. First-aid and basic life support
e. Availability of personal and group counseling and support following a disaster; and
f. Updates in the disaster management plan that affect the total population of the school. These trainings are necessary for preparation and regular up-dation of school level disaster management plans as well as for effective execution in case the need arises.

Therefore, regular practice through mock-drill exercises involving teachers together with children is critical for sustaining the impact of safety initiatives.

11.5 FIRE SAETY

11.5.1 Setting up/ upgrading fire Stations

Setting up or upgrading of fire station will improve many obstacles we are facing today, in view of the fact that due to limitations of **Fire Truck & Fire Stations** the first actions in fighting and minimizing casualties in fire are often failed as late attainment of concern authority on the premises. Occasionally local people are helping whichever means they can to fight the fire in the villages/town, thereby risking many untrained people and pose a threat to nearby residents. To overcome such situation of the problems we are facing there should be several Fire Stations as far as possible. Potentially Fire Trucks & Fire Stations should be established in AMC area in Aizawl District, and 3 to 4 stations in every district.

11.5.2 Constructing Water Storage Tank at suitable locations for use in emergencies.

This will improve when fire broke out in unapproachable by fire trucks at any locations, Study should be prepared to identify where unapproachable by Fire trucks and Stations locations are in the state and initiated for **Constructing Water Storage Tank** at suitable locations for use in emergencies

11.5.3 Adopting Modern Technology such as Water mist and drones

Water mist is the ultimate **extinguisher** for Class A **fires** and where a potential Class C (electrical) hazard exists. The fine spray from the unique **misting** nozzle provides safety from electrical shock greatly enhances the cooling and soaking characteristics of the agent and reduces scattering of burning materials. **Firefighter Drones** are sent to fire locations as scouts, using cameras with thermal imaging technology to help first responders in their rescue efforts. From wild land **firefighting** to burning buildings thermal **drones** can see through smoke and dark to detect the hotspots are and where the crew is. Drones can be **equipped with thermal cameras** to see in the low light-dark conditions, detect irregularities on various infrastructure ie. Solar panels, inspect insulation on buildings, and even check for hot spots in burning buildings. For public safety having a drone in the sky during an active large fire, search & rescue operation, or post-fire assessment is the only way to get a **full understanding of the current conditions** and to ensure the safety of the fire team.

11.5.4 Capacity building and skill upgrade of Government Functionaries

This will practically imply that Government of India, state governments and the communities living with disaster risk within the Indian territory have the capacity at the national, state and local levels to deal with disasters effectively by: reducing disaster risks; undertaking effective disaster mitigation measures; responding effectively to disasters; and engaging in long term recovery and reconstruction programs leading to safe and sustainable development; besides ensuring that development policies, programs and projects do not create new disaster vulnerabilities. For further details Capacity Development Goals (CDG) NATIONAL POLICY ON TRAINING AND CAPACITY DEVELOPMENT FOR DISASTER RISK REDUCTION (DRR) IN INDIA.

11.5.5 Generating awareness on a massive scale on all District Level

Learning how to respond to a fire is a large part of fire safety training and is essential in creating a clear understanding of protocol in emergency situations so employees will be sufficiently prepared to fight the fire or get out safely and efficiently. Fire training courses teach how to use firefighting equipment like fire extinguishers, how to activate the fire alarm, and how to work as a team, as well as learning what one's own responsibilities are. However, these are only a few subjects that are covered in emergency response training. Apart from this safety on Fire in Institution, Schools, Offices, Residence& Government buildings should be given adequate training and awareness regularly. This awareness and training will reduce possible human error to strike a fire by any means, awareness on fire safety should hold even in all level of district in the State. There is a guidelines made by Directorate General Fire Services, Civil Defence & Home Guards Ministry of Home Affairs Government of India. (https://dgfscdhg.gov.in/mass-awareness-in-english) https://www.kau.edu.sa/Files/0008750/Subjects/Fire-Safety%20lecture.pdf

11.5.6 Training community for fire response

The Community Emergency Response program educates volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. This training offers a consistent, nationwide approach to volunteer training and organization that professional responders can rely on during disaster situations, allowing them to focus on more complex tasks. Community Response is the first step to minimize large fire by training skill people and performing assistance on fire-fighter with proper training. Other countries initiate this type of training at large scale for risk reduction management. Example for Community fire control mechanism which can be adopted in any villages and different districts.

11.5.7 Conducting regular mock drills with involvement of CD Volunteers

The ultimate goal of mock drill is to test and improve entire capability of an organization/ community by means of strengthening the relevant policies, plans and protocols. Preparing and practicing on particular roles and responsibilities will give save number of lives, assets and surroundings. Organization that create and constantly maintain feasible and practical exercises mostly prepared to face such events.

Mock drill exercises developed should be flexible and planned in accordance with the needs of concerned organization. Mock drills conducted are not solutions for crisis but an efficient approach towards implementing important priorities that would lead to innovative solutions.

Training is the hallmark of Civil Defence. Various disaster response training programmes have been undertaken for the CD Volunteers especially on life saving skills and response mechanism. CD training is conducted in three tier basis i.e.

1) Local/Town/District level,
2) State level and
3) National level.

The training of master trainers and specialized trainings are conducted at the National level training Institute/academy and ToT/team/leadership training are conducted at State level Training Institutes. Training for general CD Volunteers are mostly conducted at Local/District level in the form of

1) Basic Training,
2) Service & Team Training,
3) CombinedTraining.

MOCK Drills, Public Demonstrations and Mock Exercises are also being conducted in regular intervals to upkeep efficiency of CD volunteers at highest pitch.

Combined Exercises are also being conducted occasionally in collaboration with specialized disaster Response Forces like NDRF, ODRAF, Fire Services, and Police etc.

11.5.8 Introduction of Village Forest Protection Communities

Forest fires always start by one of two ways - naturally **caused** or human **caused**. Natural **fires** are generally started by lightning, with a very small percentage started by spontaneous combustion of dry fuel such as sawdust and leaves. On the other hand, human-**caused fires** can be due to any number of reasons. **Environmental causes** are largely related to climatic conditions such as temperature, wind speed and direction, level of moisture in soil and atmosphere and duration of dry spells. Other natural causes are the friction of bamboos swaying due to high wind velocity and rolling stones that result in sparks setting off fires in highly inflammable leaf litter on the forest floor.

Therefore innovation and more precise committee on Forest fire prevention should be prepared, which will advance many confused community in fire season, guidelines and rules can be seen on Government Authority. Bystanders can be seen at various occasions of forest fire and open land fire, a strict confinement of people and perimeter of safe zone should be clear. This will develop a secure means to fight wild fire and forest fire as well as local and home fires.

ANNEXURE I

DOS AND DON'TS

A1.1 OPERATIONAL GUIDELINES IN THE EVENT OF CYCLONE

Dos	Don'ts
Listen to the Radio/ TV/Public Addressing System for advance information and advice.	Do not go outside or into a beach during a lull in the storm
Allow considerable margin for safety.	Be away of fallen power lines, damage bridges and structures
A cyclone may change direction, speed or intensity within a few hours, so stay tuned to the radio ITV for updated information.	Do Not go for sight seeing
Tape up large windows to prevent from shattering	
Move to the nearest shelter or vacate the area if this is ordered by the appropriate government agency.	
Stay indoors and take shelter in the strongest part of the house / society.	
Open windows on the sheltered side of the house if the roof begins to lift.	
Find shelter if you are caught out in the open.	
If you have to evaporate, do not return until advice.	

A1.2 OPERATIONAL GUIDELINES IN THE EVENT OF HEAT WAVE

Dos	Don'ts
Listen to the Radio/ TV/ Public Addressing System for advance information and advice.	Avoid standing under direct sun.
Finish the work at the morning or leave it to the evening.	Avoid Long Drives.
Drink Sufficient Water & take Food	
Keep your head away from direct heat, use Clothes, Cap, Umbrella or Glasses	
Keep Stock water with you	
Wear light dresses.	

A1.3 OPERATIONAL GUIDELINES IN THE EVENT OF DROUGHT

Dos	Don'ts
Save Water & Stock Water	Stop disutility of Water
Arrange alternate crops	
Contact Nearest Agriculture Office	

A1.4 OPERATIONAL GUIDELINES IN THE EVENT OF TORNADO

Dos	Don'ts
Listen to the Radio/TV/Public Addressing System for advance information and advice.	Do not run and do not wander round the streets.
Turn off Electricity	
Keep away from old, tall or ditched bldgs., electricity wires, slopes and walls, which are liable to collapsed.	Keep away from bldgs., walls, slopes, electricity wires and cables & stay in the vehicle.

A1.5 OPERATIONAL GUIDELINES IN THE EVENT OF AN EARTHQUAKE

Dos	DON'Ts
Listen to the Radio/ TV/ Public Addressing System for advance information and advice.	Do not run and do not wander round the streets.
Teach all members of your family how to turn off the electricity, water and gas supply.	Keep away from bldgs., walls, slopes, electricity wires and cables & stay in the vehicle.
Protect yourself by staying under the lintel of an inner door, in the corner of a room, under a table or even under a bed.	Do rush to the doors or exits, never use the lifts, keep well away from windows, mirrors, chimneys and furniture.
Keep away from old, tall or ditched bldgs., electricity wires, slopes and walls, which are liable to collapsed.	Do not rush to the doors or exists, never use the lift.
Stop the vehicle away from building, walls, slopes, electricity wires and cables.	Avoid places where there are used electric wires and do not touch any metal object in contact with them.
Live your badly damaged house and collect water containers, food items and ordinary and facial medicines.	Do not re-enter badly damaged buildings and do not go near damage structures.

A1.6 SAFETY TIPS REGARDING FIRE ACCIDENTS

1) High-Rise Fires

- Calmly leave the apartment, closing the door behind you. Remember the keys!
- Pull the fire alarm near the closest exit, if available, or raise an alarm by warning others.
- Leave the building by the stairs.
- Never take the elevator during fire!

If the exit is blocked by smoke or fire:-

- Leave the door closed but do not lock it.
- To keep the smoke out, put a wet towel in the space at the bottom of the door.

- Call the emergency fire service number and tell them your apartment number and let them know you are trapped by smoke and fire. It is important that you listen and do what they tell you.
- Stay calm and wait for someone to rescue you.

If there is a fire alarm in your building which goes off:-

- Before you open the door, feel the door by using the back of our hand. If the door is hot or warm, do not open the door.
- If the door is cool, open it just a little to check the hallway. If you see smoke in the hallway, do not leave.
- If there is no smoke in the hallway, leave and close the door. Go directly to the stairs to leave. Never use the elevator.

If smoke is in your apartment:-

- Stay low to the floor under the smoke.
- Call the Fire Emergency Number which should be pasted near your telephone along with police and other emergency services and let them know that you are trapped by smoke.

If you have a balcony and there is no fire below it, go out:-

- If there is fire below, go to the window. Do not open the window but stay near the window.
- If there is no fire below, go to the window and open it. Stay near the open window.
- Hang a bed sheet, towel or blanket out of the window to let people know that you are there and need help.
- Be calm and wait for someone to rescue you.

2) Kitchen Fires

It is important to know what kind of stove or cooking oven you have in your home. Gas, electric, kerosene or firewood is generally used. Stove is the main cause of fire hazards in your kitchen and can cause fires, which may destroy the entire house, especially in rural areas where there are thatched roof or other inflammable materials like straw kept near the kitchen. For electric and gas stoves, ensure that the switch or the gas valve is switched off/turned off immediately after the cooking is over. An electric burner remains hot and until it cools off, it can be very dangerous. The oven using wood can be dangerous because burning embers remain. When lighting the fire on a wooden fuel oven, keep a cover on the top so that sparks do not fly to the thatched roof. After the cooking is over, ensure that the remaining fire is extinguished off by sprinkling water if no adult remains in the kitchen after the cooking. Do not keep any inflammable article like kerosene near the kitchen fire.

Important Dos in the Kitchen:-

- ➲ **Do** have an adult always present when cooking is going on the kitchen. Children should not be allowed alone.
- ➲ **Do** ensure that the floor is always dry to avoid slip and fall on fire.
- ➲ **Do** keep hair tied back and avoid wearing synthetic clothes while cooking.

- **Do** make sure that the curtains on the window near the stove are tied back and will not blow on to the flame or burner
- **Do** check to make sure that the gas burner can be turned off immediately and switched off immediately after cooking.
- **Do** turn panhandles to the center of the stove and put them out of touch of the children in the house.
- **Do** keep matches out of the reach of children.

Important DON'Ts:-

- **Don't** put towels or dishrags near a stove burner.
- **Don't** wear loose fitting clothes when you cook and don't reach across the top of the stove when you are cooking.
- **Don't** store or carry inflammable can/spray near the stove.
- **Don't** let small children near an open oven door. They can be burnt by the heat or by falling onto the door or into the oven.
- **Don't** lean against the stove.
- **Don't** use towels as potholders, they may catch fire.
- **Don't** overload an electrical outlet with several appliances or extension cords. The cords or plugs may overheat and cause a fire.
- **Don't** use water to put out a grease fire. ONLY use baking soda, salt or a tight lid. Always keep a box of baking soda near the stove.
- **Don't** use electronics and electrical appliances near the sink.

Common Tips:-

- **Do** keep the phone number of the Fire Service near the telephone and ensure that everyone in the family knows the number.
- **Do** keep matches and lighters away from children.
- **Do** sleep with your bedroom closed to prevent the spread of fire.
- **Do** you know that you should never run if your **clothes are on fire** and that you **should** – **"STOP – DROP – ROLL"**

A1.7 SAFETY TIPS FOR LIGHTNING & THUNDERSTORM

Every year lightning claims quite a few lives and injures many. Quite a number of injuries are caused from electric shock received while using fixed telephones during thunderstorms.

Take these precautions before and during thunderstorms:-

1) Take action now : Consult an electrician for advice on lightning conductors required for your house.

2) If caught outdoors : If you hear thunder 10 seconds after a lightning flash, it is only about three kilometers away. The shorter the time, the closer the lightning, so find shelter urgently and proceed as follows:-

- Seek shelter in a hardtop (metal-bodied) vehicle or solid building, but avoid small open structures or fabric tents.
- Never take shelter under a small group of (or single) trees. o If far from any shelter, crouch, preferably in a hollow.
- Remove metal objects from head / body. Do not lie down flat but avoid

being the highest object. o If you hear buzzing from nearby rocks, fences, etc., move immediately. At night, a blue glow may show if an object is about to be struck.

- ➲ Do not fly kite, handle fishing rods, umbrellas or metal rods, etc., during thunderstorms.
- ➲ Stay away from metal poles, fences, clotheslines, etc. o Do not ride bicycles or travel on open vehicles.
- ➲ If driving, slow down or park away from trees, power lines, etc., and stay inside the vehicle. But do not touch any metal sections.
- ➲ If in water, leave the water immediately. o If on a boat, go ashore to a shelter as soon as possible.

3) If you are indoor

- ➲ Before the storm arrives, disconnect external aerial and power leads to radios, computer and television sets.
- ➲ Draw all curtains and keep clear of windows, electrical appliances, pipes and other metal fixtures (e.g. do not use the bath, shower, hand basin or other electric equipment).
- ➲ Avoid the use of fixed telephones. In emergency, make calls brief, (do not touch any metal, brick or concrete) and do not stand bare foot on concrete or tiled floors.

4) First Aid

Apply immediate heart massage and mouth-to-mouth resuscitation to lightning victims until medical help arrives. (You won't receive a shock from the victim).

5) Lightning facts and myths

- ➲ When struck, people do not glow or fry to a crisp but the heart and breathing are often affected.
- ➲ Only about 30% of people struck actually die and the incidence of long-term disability is low, particularly when appropriate first aid is applied promptly.
- ➲ If your clothes are wet, you are less likely to be seriously injured if struck as most of the charge will be conducted through the wet clothes rather than your body.
- ➲ Lightning can, and often does, strike more than once in the same place.

ANNEXURE II

ROLES & RESPONSIBILITIES OF THE DC/DM, ADM/ADC, SP, BDO, etc.

A2.1 Roles of the DC/DM

- The District Collector will coordinate all disaster management efforts of the District as the Chairman of Disaster Management Committee.
- The District Collector will coordinate the district level response with the concerned Departmental Officers assisting him and a core group of Officers constituting the District Disaster Management Committee. The Disaster Management Committee consists of the SP, DMS, CMO, SE/EE PWD, SE/EE Irrigation, and the Executive Officers.
- The District Collector may co-opt any other Officers or Specialists to assist him/her in carrying out the activities of the Disaster Management Committee.

A2.2 Responsibilities of the DC/DM

- Preparation of the District Disaster Management Plan with the assistance of A.D.M (In-charge of DM&R) and the DDMC/DO.
- Setting up the District Control Room;
- Encouraging the formation of Mutual Aid and Response Groups (MARGs) consisting of SDOs, Zonal Officers (B.D.Os), Home Guards and other Voluntary Agencies;
- The District Disaster Management Committee at the district level and other agencies would be responsible for directing field agencies right from the stage of warning to relief and rehabilitation.
- At the disaster site, specific tasks will be given to the designated Officers to manage the disaster.
- The DC/DM will be an integral part of the PCR.
- The Site Operation Center (SOC), which will be supervised by the concerned SDO's, who will assist the DC/DM.
- A Site Operation Manager (BDO/Zonal Officer) who would be deployed by the DC/DM will be the head of Site Operation Center.
- The DC/DM will coordinate all the field responses including setting up Transit Camps, Relief Camps and Cattle Camps and will respond to the State Relief Commissioner.

A2.3 Responsibilities of the Addl. DM/Addl. DC

Addl. District Magistrate/Addl. District Council will act as the overall in-charge of emergency preparedness and operation. He will coordinate the following activities:-

- Liaison with all the concerned Dept. Officials of the District in conducting Disaster Management Committee to be conducted twice in a year, i.e. May and November.
- Supervise the activity of District Control Room and communicate the information to the District Collector,
- Monitor and coordinate the programme during preparedness, disaster and natural calamity, rescue and relief operation, resettlement and rehabilitation,
- Evaluation of the operation process,
- Report return and forward to DC/DM for approval, sanction and onward action.

A2.4 Roles of the Emergency Officer (EO)

- The EO will be the in-charge of the District Control Room (DCR).
- Monitor, coordinate and implement actions for Disaster Management.
- He/she should look after the safety and well keeping of the infrastructure available at District Control Room.
- He should look at the facilities provided in D.C.R., which should always be in good working condition and manned round the clock.
- During the disaster response period, he being the representative of the District Collector will have to play a pivotal role in coordinating and managing the assets, resources, reliefs, etc., among the agencies, Dept., Organizations and individuals.

A2.5 Responsibilities of the Emergency Officer (EO)

- Ensure that all warning and communication systems and instruments are in working condition.
- Receive information on disaster on a routine basis from the District departments on the vulnerability of the various villages through proper channel (Block).
- He will receive reports on preparedness from the relevant District level Departments and other Departments, as per information details. These will be forwarded to the Emergency Operations Center, Special Relief Commissioner through DC/DM on fixed regular basis.
- Update database and maintain an inventory of resources half yearly as per the table given below heading inventory of resources, materials and equipment accessible to DCR.
- Monitor preparedness measures, training activities including simulation exercise undertaken by various departments.
- Ensure proper dissemination of District Disaster Management Plan at the District level, local level and disaster prone areas.
- Organize post-disaster evaluation and update DDMP accordingly.

A2.6 Roles and Responsibilities of Police/Armed Force

The Superintendent of Police will get in touch with the DC/DM for assistance in rescue, evacuation and emergency relief measures under intimation to the State Relief Commissioner. As disaster and natural calamities can occur at any point of time hence Army may be called upon to assist the civil authorities in rendering rescue and relief operations.

A2.7 Standard Operating Procedures for Police

- The Superintendent of Police must work in close coordination with the DC/DM on receipt of a warning or alert on an emergency situation.
- The SP must designate three senior Officers of the DC/DM for cocoordinating the activities of the Police Department in the District Control Room.
- These senior officers deputed by the Superintendent of Police for the District Control Room will work in three shifts in the Control Room.
- During normal times, the Police Department under the SP must assess the preparedness level and report the same as per format (Preparedness Checklist for police as given below) to the District Control Room every six months.

- They should have continued contact with the District Control Room over V.H.F during the crisis.
- The Police Department under the Superintendent of Police must maintain a list of disaster prone areas in the district, along with the details of nearest Police Stations and their contact phone numbers.
- The Police Department under the SP must organize training programmes on handling of hazardous chemicals for Police Officers in collaboration with the concern Dept. to facilitate more effective handling of road accidents involving hazardous substances.
- The Police Department under the SP must identify a Police Station in the city, which can be used as a public information center for disseminating information to the public.

A2.8 Scope of Work for Police/Armed Forces

- Road cut off, repairing and Building of approach road.
- Rescue operation/evacuation
- Escort/convoy the relief material
- Referring the dropping zone (Breach sites, Cut-off and marooned areas) do the air dropping
- Relief and Rehabilitation operation.

A2.9 Functions of Local Authorities

1) For the purpose of disaster management, local authority shall, subject to such directions as the Authority may give and under the supervision of the DC/DM:-
   a) Assist the Authorites, the Commissioner and the DC/DM;
   b) Ensure that the staff of the local authority are trained;
   c) Ensure that all resources related to disaster management are so maintained as to be ready for use;
   d) Ensure that all buildings and other structures in the local area comply with the specifications laid down in this behalf by the Departments of Government and the Authority;
   e) Carry out relief operations in the affected area subject to the directions of the Commissioner;
   f) Carry out reconstruction and rehabilitation activities in accordance with the guidelines framed by the Authority;
   g) Prepare a disaster management plan setting out the following:-
      (i) Particulars of disaster management strategies;
      (ii) The manner in which the concept and principles of disaster management are to be applied in local area;
      (iii) Role and responsibilities of the local authority in the terms of the disaster management plan of the State;
      (iv) Capacity of the local authority to fulfill its roles and responsibilities;
      (v) Contingency strategies and emergency procedures in the event of a disaster, including measures to finance the strategies.
   h) Co-ordinate the preparation and the implementation of plan with those of the organizations of the State and stakeholders;

i) Regularly review and update the plan, and conduct disaster management drills periodically; and
j) Provide such assistance to the Authority, the Commissioner and the DC/DM and other steps necessary for disaster management.

2) Each local authority shall submit a copy of its disaster management plan proposed and any amendment thereof to the Authority and the Commissioner.
3) Each department of the Government in a district shall prepare a disaster management plan for the district and the DC/DM shall ensure that such plans are integrated into the disaster management plan for the whole of the district.
4) The department of Government while preparing a plan shall:-
   (a) Anticipate the types of disaster that may occur in the district and their possible effects;
   (b) Identify the communities and property at risk;
   (c) Provide for appropriate prevention and mitigation strategies.

A2.10 Roles and Responsibilities of BDOs

- Rain Recording Stations are to be made in good working Condition. Replacement of parts, repairs if any, are to be completed by 1st June.
- Daily rain fall reports to be made by the BDOs either through VHF or over Telephone to the DC/DM.
- For the Blocks in the Sub Divisional / District Hqrs., only one Control Room either in the Office of the SDO or the BDO will do.
- Vulnerable points in the villages / GPs be identified and repairs, etc., be ensured through the Departments concerned with the funds available with them before the ensuing Monsoon.
- All water bodies in the villages must be verified and if necessary, deepening, repair, etc., must be ensured through VCs before the Monsoon.

A2.11 Roles and Responsibilities Food &Civil Supply Officer

- Public Distribution System may be kept actively working
- Fair Price Shops should function and allotment of Commodities and its lifting in time must be ensured.
- Functioning of the Storage Agents should be closely watched and the stocks in the stores should be verified frequently through Officers.

A2.12 Roles and Responsibilities District Fire Officer

He/she shall be in alert throughout the whole year and his team must be ready for action at short call. The drivers and the staff engaged with the Fire Brigade shall not be allowed leave during the period of monsoon.

A2.13 Roles and Responsibilities DIPRO

He must make arrangement for release of news bulletin to the press and media regarding rain fall, weather preventive measures taken and all other activities, the district administration is taking to mitigate the distress of the people.
He must keep close liaison with ADC i/c DM&R / Addl. Dist. Magistrate and the DC/DM for the purpose.

A2.14 Checklist for various Departments

a) District Magistrate & Collector

Activities	Pre-Disaster	During Disaster	Post Disaster
Vulnerable and risk assessment map			
Cut off areas with safe route map			
Storing facilities			
List of dealers for food			
List of volunteers			
Control room set up			
Transportation for food supply			
Pre-positioning of staff			
Evacuation and rescue of people			
Coordination and linkage			
Damage assessment			
Alternative communication system			
Pulling resources from outside if require			
Having network with neighboring districts			

b) CMO/DMS

Activities	Pre-Disaster	During Disaster	Post Disaster
Stock position of life saving drugs, ORS, IV fluids and other equipment			
Distribution of ORS, Halogen to field areas			
List of contact address of field staff			
List of volunteers			

Annexure III

LIST OF POST OFFICES (P.O) IN MAMIT DISTRICT

Sl. No.	BLOCK P.O. WITH SUB-P.O		UNBANKED VILLAGES WITH P.O	
	Name of Block P.O	Name of Sub-Office	Village	Block
1	Dampui Mamit	Ailawng	Reiek	Reiek
2	N.Sabual Mamit	Darlung	Reiek	Reiek
3	Kawrtethawveng	Mamit	Rulpuihlim	Reiek
4	Tuidam Mamit	S.Sabual	Reiek	Reiek
5	Borai Bazar	Kawrthah	Damparengpui	W. Phaileng
6	Hriphaw	Kawrthah	Marpara North	W. Phaileng
7	Kanhmun Bazar	Kawrthah	N. Chhippui	W. Phaileng
8	Thinghlun	Kawrthah	Parvatui	W. Phaileng
9	Bungthuam	Kawrthah	Phuldungsei	W.Phaileng
10	Zamuang	Kawrthah	Pukzing	W. Phaileng
11	Rengdil	Kawrthah	Lallen	W. Phaileng
12	Zawlnuam	Kawrthah	Saithah	W. Phaileng
13	Damparengpui	W.Phaileng	Sulsuri	W. Phaileng
14	Lallen	W.Phaileng	Bungthuam	Zawlnuam
15	Marpara	W.Phaileng	Dampui	Zawlnuam
16	N.Chhippui	W.Phaileng	Hriphaw	Zawlnuam
17	Phuldungsei	W.Phaileng	Kawrtethawveng	Zawlnuam
18	Parvatui	W.phaileng	N. Sabual	Zawlnuam
19	Pukzing	W.Phaileng	Rengdil	Zawlnuam
20	Saithah	W.Phaileng	Serhmun	Zawlnuam
21	Silsury	W.Phaileng	Thinghlun	Zawlnuam
22	Tuipuibari-I	W.Phaileng	Tuidam	Zawlnuam
23	Tuipuibari-II	W.Phaileng	Tuipuibari	Zawlnuam
24	Ailawng	Reiek	Zamuang	Zawlnuam
25	Darlung	Reiek	Reiek	Zawlnuam
26	Kanghmun	Reiek	Reiek	Zawlnuam
27	Khawrihnim	Reiek	Reiek	Zawlnuam
28	Lungdar W	Reiek	Reiek	Zawlnuam
29	Rulpuihlim	Reiek	Reiek	Zawlnuam
30	S.Sabual	Reiek	Reiek	Zawlnuam

Annexure IV

MEDICAL PERSONNEL AVAILABLE IN DISTRICT HOSPITAL, MAMIT

Sl. No.	Name of Person	Designation	Phone No.
1.	Dr.Lalzuatliana	D.M.S	9436374357
2	Dr. H Lalrinfela	SMO (NF)	9436353657
3.	Dr. Roy Lalliantluanga Thangluah	SMO (NF)	9774378901
4	Dr. Lalsiama Tualzik	Specialist	9791415722
5	Dr. Lalropuii	Specialist	9496320549
6	Dr. C. Hrangkapzawna	Specialist	9862494533
7	Zarzokimi	GNM	9612609033

(As per information received from DMS, District Hospital, Mamit)

Annexure V

LIST OF COMMUNITY HEALTH CENTER (CHC), PRIMARY HEALTH CENTER (PHC) AND SUB-CENTER, WITHIN MAMIT DISTRICT

BLOCK	CHC	PHC	SUB-CENTER
Reiek		Kanghmun PHC	Kanghmun SC
			Khawrihnim SC
			Darlung SC
		Reiek PHC	Reiek SC
			W.Lungdar SC
			Ailawng SC
		Rawpuichhip PHC	Rawpuichhip SC
			Rulpuihlim SC

BLOCK	CHC	PHC	SUB-CENTER
W. Phaileng		Marpara PHC	Marpara SC
			Silsuri SC
		Phuldungsei PHC	Phuldungsei SC
			Pukzing SC
			Parvatui SC
		W. Phaileng PHC	W. Phaileng SC
			Lallen SC
			Tuipuibari SC
			Damparengpui SC
Zawlnuam			Mamit SC
			Dampui SC
			Sabual SC
			Darlak SC
			Nalzawl SC
			Damdiai SC
			Suarhlip SC
	Kawrthah CHC		Kawrthah SC
			Rengdil SC
			Zamuang SC
			Hriphaw SC
			Saikhawthlir SC
			Chuhvel SC
		Zawlnuam PHC	Zawlnuam SC
			Borai SC
			Bungthuam SC
			Kanhmun SC
			Thinghlun SC
		Kawrtethawveng PHC	Kawrtethawveng SC
			Tuidam SC
			W. Bunghmun SC
			New Eden SC

Annexure VI

RESOURCES AVAILABLE AT FIRE & EMERGENCY SERVICES DEPT., MAMIT

a) Manpower:-

Sl. No.	Name of Person	Designation	Phone No.
1.	Lalngurthanga	Sub-Station Officer	8974248759
2.	Lalliansawma	Fireman	9612190773
3.	H. Lalremruata	-do-	9402376816
4.	R. Lalhmingthanga	-do-	8974209449
5.	Robert Lalrinsanga	-do-	9436759623
6.	Hrangthanmawia	-do-	9862147734
7.	Lalthanpuia	-do-	9612346456
8.	Ramsangzela	Driver Grade-II	6009028810
9.	Laltlanmawia	Driver Grade-III	9862017045

b) Tools and equipment which are in function:-

Sl. No.	Equipment/Tool	Nos.
1.	Vehicles/Fire Tender	2
2.	High pressure pump	1
3.	Extinguisher	7
4.	Emergency Light/Lamp	5
5.	Nomex Fire Proximity Suit	2
6.	Portable Water Pump	1
7.	Gum Boot	7
8.	Hand Gloves	7
9.	Full Face Mask	3
10.	Goggles	5
11.	Fireman Helmet	5
12.	Rescue Line	1
13.	Stretcher	1
14.	Hydraulic Cutter	1
15.	Fire Blanket	3
16.	Ceiling Hook	1
17.	Fireman Axe	5
18.	Foam Compound	1 gal
19.	Large Axe	1
20.	Walkie Talkie	2

(As per information dated 6th November, 2019, received from Fire & Emergency Services Dept., District Hospital, Mamit)

Annexure VII

LIST OF IDENTIFIED SITES FOR SETTING UP OF RELIEF CAMP WITHIN MAMIT DISTRICT

Sl. No.	Name of Site	Name of the Village
1.	Darlung Playground	Darlung
2.	Bawngthah Playground	Bawngthah
3.	Zawlnuam Vengpui Playground	Zawlnuam
4.	Kawrtethawveng Playground	Kawrtethawveng
5.	West Phaileng Playground	West Phaileng
6.	West Lungdar Playground	West Lungdar
7.	Mamit GSA Playground	Mamit
8.	Luangpawl Playground	Mamit
9.	South Sabual Playground	South Sabual
10.	Phuldungsei Playground	Phuldungsei
11.	Kanhmun Playground	Kanhmun
12.	Zawlnuam Thuampui Playground	Zawlnuam
13.	Tuidam Playground	Tuidam
14.	Kanghmun Playground	Kanghmun
15.	Bungthuam Playground	Bungthuam
16.	Rengdil Playground	Rengdil
17.	Sihthiang Playground	Sihthiang
18.	Zamuang Playground	Zamuang
19.	Marpara Playground	Marpara
20.	Reiek Playground	Reiek

Annexure VIII

LIST OF EQUIPMENT AVAILABLE AT DISTRICT EMERGENCY OPERATION CENTER

Sl No	Name of equipments	No of items in DEOC	Duration of Storage	Condition of Equipment
1	Filter (Aluminium)	3	2 yrs	Ready to use
2	Dekchi	9	2 yrs	Ready to use
3	Filter (Plastic)	1	2 yrs	Ready to use
4	Gas Stove	5	2 yrs	Ready to use
5	Emergency Light	4	3yrs	Ready to use
6	Blanket	6	2 yrs	Ready to use
7	Mattress	9	2 yrs	Ready to use
8	Nylon Rope (60m)	1	7 months	Ready to use
9	Petromax	3	4 yrs	Need repair
10	Chainsaw	2		Ready to use
11	Rope Harness (with figure of 8)	12 (sets)	unknown	Ready to use
12	Rope ladder	3	unknown	Ready to use
13	Rubber Boat (Yamaha Engine)	1	6yrs	Not tested
14	Hard Surface Cutter	1	6yrs	Need repair
15	Stretcher (Folded)	3	7 months	Ready to use
16	Stretcher (Coup)	2	7 months	Ready to use
17	Rope (20m)	2	4 yrs	Ready to use
18	Mega Phone	5	4 yrs	Need repair
19	Helmet (Search & Rescue)	25	6yrs	Ready to use
20	Life jacket	10	1 months	Ready to use
21	Jack Hammer	1	1 months	Ready to use
22	Portable Light	5	1 months	Ready to use
23	Satellite Phone	1	unknown	Not working
24	Drone	1	unknown	Ready to use