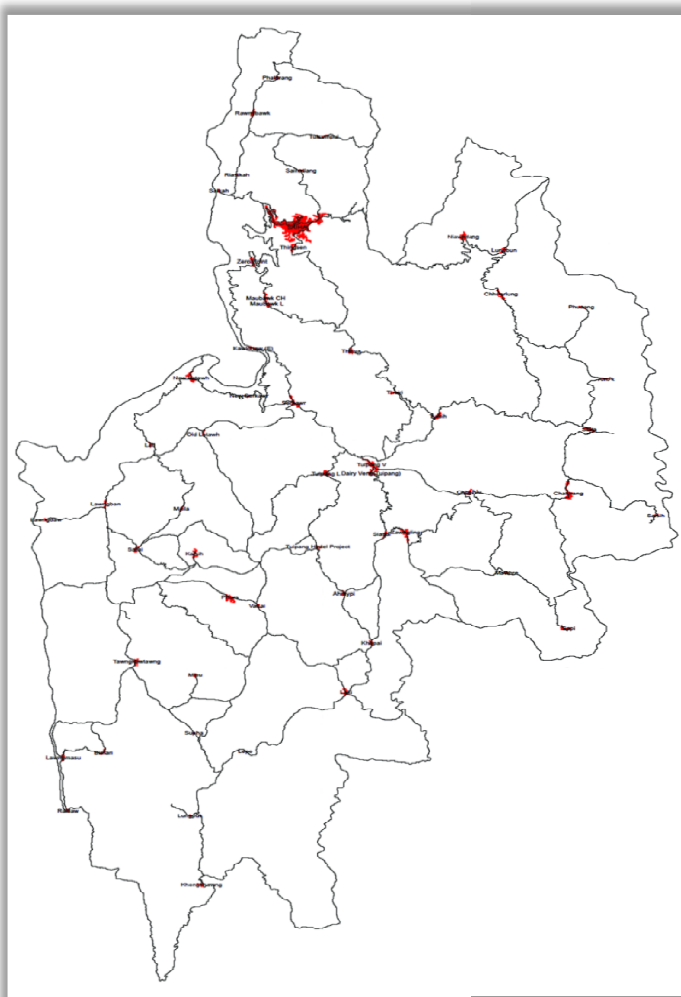




**SAIHA DISTRICT:
MIZORAM**

2011

DISASTER MANAGEMENT PLAN



TOLL FREE: 03835- 1077

**DISTRICT EMERGENCY OPERATION CENTRE:
03835- 222055**

Prepared by:

**SAIHA DISTRICT DISASTER
MANAGEMENT AUTHORITY**

PREFACE

CONTENTS

CHAPTER	TOPIC	PAGE NO.
	PREFACE	2
	CONTENTS	3
	LIST OF IMPORTANT PHONE NUMBERS, etc.	7
1.	DISASTER MANAGEMENT PLAN	9 – 19
	1.1 INTRODUCTION	9
	1.2 DISASTER MANAGEMENT CYCLE	9
	1.3 PLANNING FOR DIFFERENT PHASE OF AN EMERGENCY	10
	1.4 RECOVERY PHASE	12
	1.5 LIFE CYCLE OF DDP	12
	1.6 OBJECTIVE AND COMPONENTS	12
	1.7 PRINCIPLES	13
	1.8 RESPONSIBILITIES	14
	1.8.1 Nodal department for various disasters	15
	1.8.2 Authorities responsible for sending information	15
	1.9 SETUP OF DDMA	15
	1.10 COMPOSITION OF DDMA	16
	1.10.1 DESIGNATED MEETING VENUE	16
	1.11 BLOCK LEVEL COORDINATION COMMITTEE ON DM	16
	1.12 VILLAGE LEVEL COORDINATION COMMITTEE	18
	1.13 TYPES OF DISASTER EXPERIENCED IN THE DISTRICT	19
2.	PROFILE OF SAIHA DISTRICT	20 – 34
	2.1 SAIHA DISTRICT AT A GLANCE	20
	2.2 DEMOGRAPHIC DETAILS	21
	2.3 RAINFALL DATA	25
	2.5 HISTORICAL BACKGROUND	26
	2.6 SOCIO- ECONOMIC CONDITION	27
	2.7 CLIMATIC CONDITION	28
	2.8 OCCUPATION/ ECONOMIC	28
	2.9 FLORA AND FAUNA	28
	2.10 RIVER SYSTEM	28
	2.11 DRINKING WATER SOURCES	29
	2.12 ROAD CONDITION	29
	2.12.1 ROAD LENGTH UNDER PWD SAIHA DIVISION	29

	2.12.2 ROAD NETWORK UNDER PWD SAIHA DIV.	29
	2.13 TRANSPORT FACILITIES	31
	2.14 MEDICAL FACILITIES	31
	2.15 DRUGS STORE WITHIN SAIHA TOWN	32
	2.16 FINANCIAL INSTITUTION	32
	2.17 LIST OF NGOs	32
	2.18 GEOMORPHOLOGY	33
	2.19 GEOLOGY	33
	2.20 SOIL TYPES	34
3.	HAZARD/ RISK, VULNERABILITY & CAPACITY ANALYSIS	35 - 44
	3.1 CYCLONE	35
	3.1.1 VILLAGE-WISE VULNERABILITY IN CYCLONE	35
	3.2 LANDSLIDE	37
	3.3 FLOOD	37
	3.4 EARTHQUAKE	37
	3.5 ROAD ACCIDENT	38
	3.6 FIRE- FOREST/ HOUSE	39
	3.7 DROUGHT	39
	3.8 EPIDEMICS	39
	3.9 RECORD OF PREVIOUS DISASTERS IN SAIHA DISTRICT	39
	3.10 DISASTER PROBABILITY IN THE DISTRICT	40
	3.11 RISK ANALYSIS	41
	3.12 RESOURCE INVENTORY AND CAPACITY ANALYSIS	42
	3.12.1 DEPLOYMENT OF MIZORAM POLICE PERSONNEL	42
	3.12.2 M.P.R.O	42
	3.12.3 FIRE AND EMERGENCY SERVICES	42
	3.12.4 CIVIL SOCIETY ORGANIZATIONS	43
	3.12.5 FCS&CA STORAGE FACILITIES WITH CAPACITY	43
	3.13 PREPAREDNESS ANALYSIS	44
4.	CASE STUDY: SAIHA TOWN SINKING AREA	45 – 48
	4.1 INTRODUCTION	45
	4.2 RAINFALL & CLIMATE	45
	4.3 GEOLOGY & GEOMORPHOLOGY	45
	4.4 OBSERVATIONS	46

	4.4.1 NEW COLONY	46
	4.4.2 COLLEGE VENG	47
	4.4.3 COUNCIL VENG	47
	4.5 DISCUSSION	48
	4.6 SUGGESTION	48
5.	DISASTER PREPAREDNESS AND MITIGATION	49 - 54
	5.1 PREPAREDNESS	49
	5.2 MITIGATION	49
	5.3 PREPAREDNESS AND MITIGATION MEASURES	50
	5.3.1 GENERAL PREPAREDNESS MEASURES	50
	5.3.2 DISASTER-WISE MITIGATION MEASURES	51
6.	INSTITUTIONAL MECHANISM FOR DM	55 - 65
	6.1 DISTRICT DISASTER MANAGEMENT AUTHORITY	55
	6.2 DISTRICT DISASTER MANAGEMENT TEAM	60
	6.2 EMERGENCY OPERATION CENTRE	61
	6.2.1 LIST OF EQUIPMENTS IN THE DEOC, SAIHA	61
	6.2.2 ROLE OF EOC IN NORMAL TIME	62
	6.2.3 ROLE OF EOC DURING DISASTER	63
	6.3 SITE OPERATION CENTRE (SOC)	64
	6.4 EMERGENCY SUPPORT FUNCTIONS	64
7.	STANDARD OPERATING PROCEDURES (SOP)	66 – 85
	7.1 INTRODUCTION	66
	7.2 SEQUENCE OF ACTION TO BE TAKEN AT THE TIME OF DISASTER	67
	7.3 S.O.P FOR EMERGENCY SUPPORT FUNCTIONS (ESF)	68
8.	RESPONSE PLAN/ ACTION PLAN FOR ESF	86 – 95
	8.1 SHORT TERM RESPONSE PLAN	86
	8.1.1 RESCUE OPERATIONS	86
	8.1.2 RELIEF OPERATIONS	87
	8.1.3 REHABILITATION	87
	8.2 LONG TERM RESPONSE PLAN	87
	8.2.1 ACTION PLAN FOR POLICE	88
	8.2.2 ACTION PLAN FOR FIRE & EMERGENCY SERVICE	89

	8.2.3 ACTION PLAN FOR P&E	89
	8.2.4 ACTION PLAN FOR BSNL	90
	8.2.5 ACTION PLAN FOR PWD	91
	8.2.6 ACTION PLAN FOR PHE	93
	8.2.7 ACTION PLAN FOR AGRICULTURE	94
	8.2.8 ACTION PLAN FOR DCSO, FCS&CA	94
	8.2.9 ACTION PLAN FOR TRANSPORT	95
	8.2.10 ACTION PLAN FOR ARMY	95
	8.2.11 ACTION PLAN FOR SEARCH & RESCUE TEAM	95
9.	VILLAGE DISASTER MANAGEMENT PLAN	97 – 104
	9.1 VILLAGE DISASTER MANAGEMENT TEAM	97
	9.1.1 FIRST AID AND MEDICAL	97
	9.1.2 SEARCH AND RESCUE TEAM	97
	9.1.3 SHELTER MANAGEMENT	98
	9.1.4 FOOD AND WATER MANAGEMENT	98
	9.1.5 RELIEF CO-ORDINATION	98
	9.1.6 INFORMATION AND DAMAGE ASSESSMENT	98
	9.1.7 TRAUMA COUNSELING	98
	9.2 S.O.P DISASTER MANAGEMENT TEAM	98
10.	CRISIS MANAGEMENT PLAN FOR SAIHA CIVIL HOSPITAL	105 – 114
	10.1 INTRODUCTION	105
	10.1.1 RESOURCES OF DISTRICT HOSPITAL, SAIHA	105
	10.1.2 ORGANIZATION AND OPERATIONS	105
	10.2 SPECIFIC DUTIES & RESPONSIBILITIES	110
	10.2.1 EMERGENCY MEDICAL OFFICERS (EMO)	110
	10.2.2 MEDICAL SUPERINTENDENT	111
	10.2.3 SENIOR MEDICAL OFFICER (ADMINISTRATION)	111
	10.2.4 SENIOR MEDICAL OFFICER	111
	10.2.5 NURSING SUPERINTENDENT	112
	10.3 MAN POWER	112
	10.3.1 MAN POWER- DOCTORS	112
	10.3.2 MAN POWER- PARA MEDICAL	113
	10.3.3 IPHS MANPOWER MAPPING FOR PHC	114
	APPENDIX-I: DDMA NOTIFICATION	115
	APPENDIX-II: THE DISASTER MANAGEMENT ACT, 2005	119
	APPENDIX-III: TERMINOLOGY	157

	APPENDIX-IV: ABBREVIATIONS	158
	APPENDIX-V: LIST OF IMPORTANT WEBSITES	159

A. LIST OF IMPORTANT TELEPHONE NUMBERS:

Sl.No.	Functionaries	Contact	
		Office	Mobile
1.	District Magistrate/ D.C.	222024 (Fax)	
2.	SDC: Nodal Officer		
3.	Additional D.C.	226068	
4.	Sub-Divisional Officer (S)	222042	
5.	Superintendent of Police	222040	
6.	Project Director (P.D.), DRDA	226166	9436144003
7.	B.D.O Saiha		
8.	B.D.O Tuipang	280203 280204	
9.	Saiha Police Station	100/ 225052	
10.	Fire & Emergency Services	101/ 222006	
11.	Civil Hospital Casualty	102/ 222006	
12.	ECM Hospital	222738	
13.	District Emergency Operation Centre	222055	

Police Outpost, Bazar 223015	222005	Police Outpost, Siahatlah
Mizofed 225019	222037	Power
Water supply 222039	222099	Circuit
PWD I.B. (Siahatlah) 22251	225044	Tourist Lodge
HSV Cable T.V. 222195	222248	NSV Cable T.V.

B. OWNERS OF PRIVATE EARTH MOVERS

Sl.No.	Name	Address	Contact No.
1.	H. Lalchhinga	New Colony	9436379511
2.	K. Hrang sua	New Colony	9436149086
3.	H.C. Lalmalsawma	Council Veng	9436149008
4.	H. Lalawii	New Saiha	9436149011
5.	C. Lalawmpuia	New Saiha	9436149376
6.	Zamanga	New Saiha	
7.	Vanlalngaia	New Saiha	9436970342
8.	K.H. Beihlo	New Colony	03835- 222095
9.	K. Sangthanga	New Saiha	03835- 226131
10.	C. Lalthlamuana	New Saiha	9436149527

C. LIST OF TRUCK (HMV) OWNERS

S.No.	Name	Address	Contact No.
1.	H. Lalchhinga	New Colony	9436379511
2.	K. Hrang sua	New Colony	9436149086
3.	N. Nadaw	Saiha Bazar, Vengpui	03835- 222257
4.	Vanlalngaia	New Saiha	9436970342
5.	Anthony P. Gangte	Vengpui	9436149049
6.	C. Lalawmpuia	New Saiha	9436149376

DISTANCE OF VILLAGES FROM SAIHA

Village Km	in Km	Village	in Km	Village	in
Tuipang	72	Zawngling	86	Tuipang 'L'	80
Chapui	115	Chakhang	67	Tuisih	68
Chakhang	67	Tuisih	68	Siata	55
Ainak	61	Niawhtlang	30	Chhualung	46
Khopai	102	Mawhre	100	Laki	114
Siatlai	79	Vahai	115	Chheihlu	92
Siasi	55	Phusa	58	Lungbun	37
Ahmypi	106	Kawlchaw 'E'	41	Serkawr	53
New Serkawr	48	New Latawh	57	Laty (Lohry)	67

Maila	82	Kaisih	99	Phura	97
Lawngban	98	Meipu	126	Lungdar	98
Supha	117	Lope	110	Tongkolong	110
Lomasu	120	Theiri	56	Zero point	29
Riasikah	20	Lower Theiva	47	Tuipui Ferry	14
Rawmibawk	61	Tuisumpui	14	Maubawk 'Ch'	36
Tuipang Dairy	72	Lotai	105	Maubawk 'L'	35
Bymary	115	Lungpuk	117		

CHAPTER 1

DISASTER MANAGEMENT PLAN

1.1 INTRODUCTION

A **disaster** is the product of a hazard such as earthquake, landslide, cyclone, flood and hailstorm coinciding with a vulnerable situation, which might include communities, cities or villages. Disaster refers to a catastrophe, mishap, calamity and grave occurrence from natural or man-made causes, which is beyond the coping capacity of the affected community. Hence, its management and mitigation requires a careful and elaborate planning, spelling out clearly the roles and responsibility of each official.

Saiha District is one of the disaster prone districts in Mizoram which falls under zone-V of earthquake. It experiences landslides, cloud burst, cyclone, hailstorm, forest/ urban fire and road accidents. The present Disaster Management Programme which has been implemented by the Government of Mizoram aims to minimize the risk caused by unexpected disasters in the district. The Disaster Management Programme exclusively works for developing the disaster management plans, providing trainings, and strengthening the capacity of the different Disaster Management Teams (DMTs) and creating awareness among public on various disasters.

The need for Disaster Planning arises from the fact that communities which have effectively applied the DDMP process are better able to cope with the

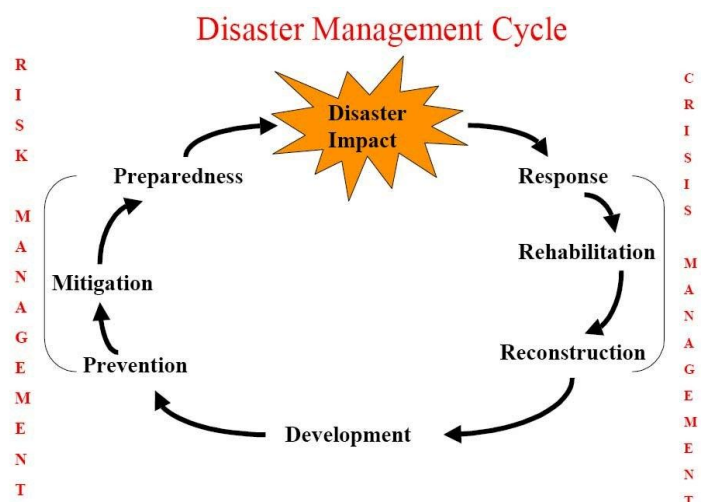
impact of disasters with effective DDMP human and other resources can be mobilized better to deal with impending as well as aftermath of disasters.

This plan has been prepared to provide guidance to the district administration as well as the general public and NGO's for systematic execution of activities before, during and after any disasters.

1.2 DISASTER MANAGEMENT CYCLE

These are four phases of Disaster Management – Mitigation, preparedness, Response and Recovery. Each phase results from the previous one and established the requirements of the next one.

- a) **Mitigation** refers to activities, which actually eliminate or reduce the vulnerability or chance of occurrence or the effects of a disaster.
- b) **Preparedness** is planning how to respond in case an emergency or disaster occurs and working to increase resources available to respond effectively.
- c) **Responds** activities occur during and immediately following a disaster. They are designed to provide emergency assistance to victims of the event and reduce the likelihood of the secondary damage.
- d) **Recovery** – continues until all systems return to normal or near normal. Short – term recovery returns vital life support systems to minimum operating standards.



Long term recovery from a disaster may go on years until the entire disaster area is completely re-developed.

1.3 PLANNING FOR DIFFERENT PHASE OF AN EMERGENCY

- a) **MITIGATION PHASE**

Mitigation phase begins with conducting hazard identification and vulnerability and analysis, which are essential to the planning of all other phases.

Hazard identification and vulnerability analysis is a two step process. First, the hazard is identified which has the potential of affecting the population. Second, how people, property and structures will be affected by the disastrous event.

b) PREPAREDNESS PHASE

Disaster preparedness is a state of being ready to react promptly and effectively in the event of disaster. Being prepared means that a plan of action exists for various disasters. It should be done before the disaster occurs. Preparedness measures depend upon the disaster, especially those which strike without notice, requires a detail plan. It is essential to identify the resources available, and way to utilize them. It must be reasonably certain that the plan will work in a disaster situation.

c) RESPONSE PHASE

The five basic stages of response to an emergency disaster are:

- 1) Notification/Warning
- 2) Immediate public safety
- 3) Property security
- 4) Public Welfare and
- 5) Restoration.

- 1) **Notification/Warning:** Warning should be issued to two specific groups (a) The general public and (b) Departments, Individual or Agencies who must respond to the disaster.

In most disaster situation, the general public can be informed through Radio and Television; however those in immediate danger area should be informed by or more direct mean using public address systems. Those departments, individuals or agencies which must be alerted could be done by two – way Radio bulletins. The people who are expected to

respond must be given enough information so that they know what to do.

- 2) **Immediate public safety:** Immediate public safety deals primarily with providing disaster medical services, search and rescue evacuation from the danger area. The primary concern is for safety of the people and treatment for those who may be injured.
- 3) **Property security:** This stage deals primarily with the protection of property in the community. The local police should see that property is safe and looting or vandalism does not occur. The fire department should aid in prevention of further damage to surrounding property. The local PWD may also play an important part by providing manpower, remove debris or provides street barricades.
- 4) **Public Welfare:** During the public welfare stage, the prime concern is about mass welfare. Care for injured, shelter for homeless, food and clothing for those in need.
During this stage, assessment of damage is necessary in order to obtain state or national support. And all the service agencies must work closely.
- 5) **Restoration:** Restoration means restoring utility service and removal of debris from the disaster scene here. How the Assistance provided by district and state government is used.

1.4 RECOVERY PHASE

This is the final phase of disaster management and can be divided into short term and long term recovery.

Short-term recovery means the restoration of vital services and facilities to minimum standard of operation and safety. During short term recovery people's immediate needs are taken care of an assistance programmes are put into effect.

Long-term recovery is simply those recovery efforts, which are still in operation long after a disaster and includes everything from complete redevelopment of a disaster area to mitigation effort to prevent a similar disaster on an ongoing basis for years after the disaster.

1.5 LIFE CYCLE OF DDP

As planning is continuous process, any plan, to be effective, must be regularly checked, tested and revised. It should be updated as the condition change. Responsibility in this regard lies with the Planning Committee, and a plan review schedule should be worked out. At least one annual revision must be done.

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.

A proper implemented plan review schedule will ensure that plans are living document. Plan maintenance is vital so that there is a clear indication of the effective of the Plan. Any deficiency can be revised and strengthened to meet possible future emergencies.

1.6 OBJECTIVES AND COMPONENTS

The *objectives* of the District Disaster Management & Response Plan are as follows:

- a) To ensure proper co-ordination amongst District Level, Sub-Division Level, Block level and Village Level Disaster Management Committee.
- b) To give important information and advice at the time of rescue, relief, and rehabilitation of affected families during the calamities through Block Level and Village Level Disaster Management Committee.
- c) Risk & vulnerability assessment and to set response mechanism and strategies.
- d) Establishment of emergency response policies, organizational arrangements and operational plan to be followed after disaster. The various *components* to be included in the plan are:
 - (a) the areas in the district vulnerable to different forms of disasters;
 - (b) the measures to be taken, for prevention and mitigation of disaster, by the Departments of the Government at the district level and local authorities in the district;

- (c) the capacity-building and preparedness measures required to be taken by the Departments of the Government at the district level and the local authorities in the district to respond to any threatening disaster situation or disaster;
- (d) the response plans and procedures, in the event of a disaster, providing for–
 - i) allocation of responsibilities to the Departments of the Government at the district level and the local authorities in the district;
 - ii) prompt response to disaster and relief thereof;
 - iii) procurement of essential resources; establishment of communication links;
 - iv) the dissemination of information to the public;
- (e) such other matters as may be required by the State Authority.

1.7 PRINCIPLES

The basic planning principles adopted in the development of this District Emergency Management plan are:-

- 1) ***Plan must be clear and practical:*** Plan must be developed in the language known to the people in clear and precise words stating exactly the procedures to follow in case of emergency and goals should stated for all phases of the anticipated event, preparedness, relief and rehabilitation and recovery. Formalities to be follow for gaining access to resources relevant to the management of the disaster at hand should be for all purposes and kept to the minimum.
- 2) ***Good management information system:*** A comprehensive collection of facts and date is the pre-requisite for the development of an effective disaster management plan. Contingency plan must also include arrangement for collecting, analyzing, storing and disseminating information and there by one of the functions of the District Emergency Operation Center (DEOC) has been identified as information management.
- 3) ***Maximum utilization of available resources:*** It can be done by maintaining proper resource inventory system which should cover the basic needs of the people apart from machineries and conveyance.

- 4) ***Train and Practice regularly:*** Any plan to be effective require the agencies involved to train and practice regularly and there by any flaws and weaknesses in the out lay of the component of the plan can be identified and rectified.
- 5) ***Critical evaluation:*** Evaluation of the effectiveness of any disaster management plan should form a part of any such plan.
- 6) ***Plan must be well organized assigning:*** Specific responsibilities and accountabilities to the different agencies, government or otherwise is important. The DEOC established should (1) give timely warning to the people (2) initiate and supervise activities done at different levels (3)every information about the district should be available with the Control Room.
- 7) ***Incorporation of departmental sub plans:*** The main plan should be supported by departmental plans which are more specific for the concerned organizations and makes the response easier in the event of an emergency. The Departmental sub plans are incorporated in this main plan with the same objective.
- 8) ***Plan must be flexible:*** Plan must be formulated so as to adapt itself to changing situations and verifying intensity and magnitude of any disaster. Flexibility of plan makes it viable and relevant in all aspects of emergency management.

1.8 RESPONSIBILITIES

The District Magistrate, Sub-Divisional Magistrates and Block Development Officers are responsible for formulation of District, Sub-Divisional, Block and Village level plans. Under the Chairmanship of the Deputy Commissioner, the District Disaster Management Authority (DDMA) is the apex body in the district to oversee and supervise the disaster management. The Committee makes a plan and monitors routine preparedness for different types of calamities for minimal effects of disaster, draw a response mechanism and coordinate linkages of all departments and agencies in tackling the problems of disasters.

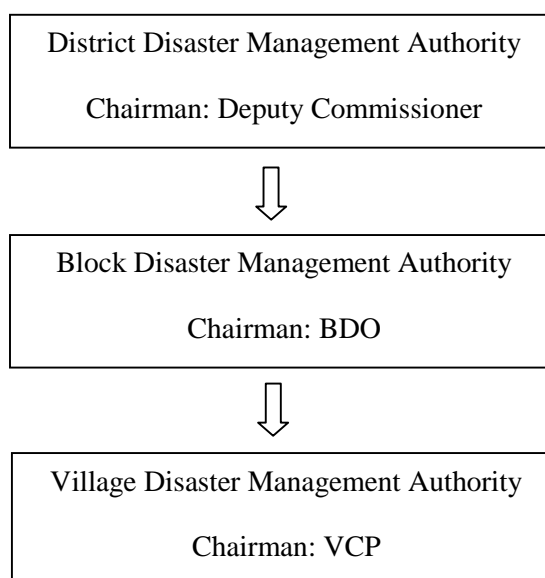
1.8.1 Nodal department for various disasters:

Sl.No.	Type of Disaster	Nodal Department
1.	Forest Fire	D.C., Environment & Forest Deptt. (MADC)
2.	Biological disaster	Health & Family Welfare, PHE
3.	Major breakdown of law & order	Police, D.C.
4.	Major road accidents	Police, D.C., Transport Deptt.
5.	Large scale refugees from any neighboring country/ state	Police, D.C., FCS&CA
6.	Collapse structure	PWD, P&E, Police
7.	Drought	Agriculture, Horticulture, Minor Irrigation
8.	Earthquake, Cyclone, etc.	D.C., DM&R

1.8.2 Authorities Responsible for sending information:

Sl. No.	Crisis	Authorities responsible for reporting
1.	Hijacking	D.C./ GAD
2.	Natural Disasters	D.C./ District EOC
3.	Chemical/ Biological	D.C./ District EOC/ H&FW
4.	Forest Fires	DFO/ DCF (MADC) & D.C.
5.	Terrorist Outrages	D.C./ S.P.
6.	Epidemic	D.C./ C.M.O/ H&FW
7.	Law & Order	D.C.

1.9 SETUP OF DISTRICT DISASTER MANAGEMENT AUTHORITY



1.10

COMPOSITION OF DISTRICT DISASTER MANAGEMENT AUTHORITY

In case of a disaster in the district, response management will be the responsibility of the District Disaster Management Committee with the following members:-

Sl.No.	Designation	Post	Mobile No.	Office No.
1.	Deputy Commissioner	Chairperson	9436149115	222024
2.	CEM, MADC	Co-Chairperson		222021
3.	PD, DRDA	Co-Chairperson	9436144003	226166
4.	SDC, Nodal Officer	Member Secretary	9436148728	
5.	Addl. Deputy Commissioner	Member	9436144121	226068
6.	Superintendent of Police	Member		222040
7.	Chief Medical Officer	Member		222059
8.	S.D.O (S)	Member		222042
9.	E.E., P.W.D	Member		222012
10.	E.E., P.H.E.D	Member		
11.	E.E., P&E	Member		222073
12.	E.M. (Rev)	Member	9436149214	
13.	D.V.O	Member		224018
14.	O/C, F&EF	Member		223085
15.	DCF, MADC	Member		
16.	D.R.O	Member		
17.	I & PRO	Member	9436379394	
18.	President, M.T.P Hqrs.	Member		
19.	President, Y.L.A. Sub Hqrs	Member		
20.	President, M.Y.A. Hqrs.	Member		
21.	President, Y.M.A (Group)	Member		
22.	President, MCHP Hqrs.	Member		
23.	President, MHIP Sub Hqrs.	Member		
24.	President, LWA Hqrs.	Member		
25.	D.C.S.O	Member		222050
26.	D.A.O	Member		223032
27.	D.H.O	Member		226434
28.	District Transport Officer	Member		226434
29.	Station Superintendent, MST	Member		226168
30.	O.C., MRHG	Member		224056
31.	District Medical Superintendent	Member		224056
32.	Coy Commander, Assam Rifles	Member		222777

1.10.1 DESIGNATED MEETING VENUE: In the event of any major disaster taking place in the district, if the communication systems are disrupted, all members of the DDMA will assemble at the DC office automatically within one hour for initiating the response plan.

If holding of such meeting is not possible at the DC office due to damage to the building or the road to the DC office being blocked by the debris, alternative venues in order of priority will be as under:

1. D.C. Conference Hall
2. S.P. Office, Saiha
3. Circuit House, Saiha
4. CEM Bungalow, Saiha

The following telephone numbers should be with all the members at all times:

1. D.C. Saiha : 222024/ 222038 (Fax)
2. S.P. Saiha : 222040
3. Circuit House, Saiha : 222039
4. Tourist Lodge, Saiha : 226132

If the Chairman is unable to preside over the meeting for any reason, CEM (MADC)/ Addl. D.C. will take the chair. If CEM and Addl. D.C. are also not present, S.P. Saiha will chair the meeting. If none of these officers are present any of the senior members present. There will be no quorum.

Method for giving publicity: Warning should be issued to two specific groups (a) the general public, and (b) departments, individual or agencies who must respond to the disaster.

1.11 BLOCK LEVEL COORDINATION COMMITTEE ON DISASTER MANAGEMENT:

There shall be a Management Committee at Block Level. This Committee will assist in the implementation and coordinates programmes undertaken by Village Level Committee. The Committee shall consist of the following members:

- | | | |
|------------------|---|--|
| Chairman | : | BDO |
| Member Secretary | : | SDM/ CEO/ Headmaster Local High School |
| Members | : | <ol style="list-style-type: none">1. SDPO2. Medical Officer3. EE/SDO, PWD/PHE/P&E4. CEO (Edn.)5. Representative of MTP, MCHP, YMA, YLA6. Representative of local Churches7. 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-

- i) To plan, organize and render relief in accordance with provisions of the District Plan
- ii) To directly monitor the progress of relief operation at Sub-Division/Block headquarters in rendering relief before, during and after the Disaster
- iii) To coordinate the efforts of the Govt. Departments and NGO's
- iv) To suggest measures for further improvement of relief operation
- v) To supervise various efforts or relief services at the village level

1.11 VILLAGE LEVEL CO-ORDINATION COMMITTEE: The Village Level Committee on Disaster Management shall consist of the following:

Chairman : President, VC/Senior most Govt. Officer
Vice Chairman : Vice President, Village Council
Member Secretary : President, Group/Branch MTP or Headmaster, M.E School

Members:

- 1. Post Commander, Security Post or his representative
- 2. O.C., Police Station/Out Post (if any)
- 3. VFA if posted in the area
- 4. Health Assistant / Pharmacists /Nurse / Midwife, if posted in the area
- 5. Gram Sevak (if any)
- 6. Section Officer/Section Assistant, PWD (if any)
- 7. Secretary, Branch MTP
- 8. Head Teacher, Primary School, Middle School, High School
- 9. Representative of local Churches
- 10. 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 coordinate efforts of Government Department, NGOs in connection with relief operations
- 3) To suggest measures for improvement of relief operations.
- 4) To advise on any measures necessary for relief operations

1.12 TYPES OF DISASTER EXPERIENCED IN THE DISTRICT

<i>Natural Disasters</i>	<i>Man- made Disasters</i>
Cyclone	Fire: Forest and House
Hailstorm	Road accident
Drought	Electrical disaster
Earthquake	Communal riot
Cloud burst	
Flood	
Epidemics	
Bamboo Flowering	

CHAPTER 2

PROFILE OF SAIHA DISTRICT

2.1 SAIHA DISTRICT AT A GLANCE

Location : Saiha District lies in the southeastern corner of Mizoram. The district is situated between 22°45' to 22°60' Latitudes and 92°50' to 93°14' Longitudes.

Boundary : North & North-west : Lunglei district
South & East : Myanmar
West side : Lawngtlai district

Its international boundary with Myanmar is 159 kms long. The inter district boundary with Lunglei district is 62 kms and 73 kms with Lawngtlai district. The District is surrounded by the river Kolodyne (Chhimtuipui or Beina) on the three sides- east, north and west.

Total Geographical Area: 1399 square kms (6.63% of the State area)

Toposheet Nos.: 84 B/13, 84 B/14, **84 B/15**, 84 F/1, 84 F2 & 84 F/3.

Administrative Sub-Divisions: Saiha (S) and Tuipang (S).

Rural Development Block: Saiha and Tuipang.

No. of Educational Institution:-

Primary School	:	131
Middle School	:	95
High School	:	33
Higher Secondary School	:	04 (Govt.-1 & Pvt.- 3)
College	:	01
ITI	:	01

Total : 264

Literacy rate (2011 Census) : 88.41% (82.20 %: 2001)

Name and Number of Polling Station:

Sl.No.	Name of Constituency	No.of Polling Station	No. of Voters		
			Male	Female	Total
1.	39 Saiha (ST)	26	7,962	8,452	16,414
2.	40 Palak (ST)	40	7,430	7,613	15,043
TOTAL		66	15,392	16,065	31,457

Population of Saiha District:

Sl. No.	Name of Block	T.T. no. of Household	Population			Population		
			Adult	Children	T.T.	Male	Female	T.T.
1.	Tuipang	4,348	17,224	3,519	20,743	12,265	11,997	24,262
2.	Saiha	4,605	31,342	4,109	24,549	14,760	14,301	29,061
Total		8,953	48,566	7,628	56,194	27,025	26,298	53,323

2.2 DEMOGRAPHIC DETAILS:

SAIHA R. D. BLOCK											
Sl. No	Name of Village	Number of Household	Sex		No. of Children 0-6		No. of literates		No. of illiterates		Total
			Male	Female	Male	Female	Male	Female	M	F	
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	Phalhrang	73	151	147	38	40	136	115	-	-	298
2	Rawmibawk	102	226	225	31	37	195	181	-	-	451
3	Riasikah	36	72	61	12	11	41	30	-	-	133
4	Tuipui 'F'	58	125	111	20	14	96	69	-	-	236
5	Zero Point	158	399	378	68	71	287	263	-	-	777
6	Maubawk 'L'	119	283	314	49	54	227	223	-	-	597
7	Maubawk 'CH'	56	134	118	24	21	104	84	-	-	252
8	Kawlchaw 'E'	132	298	274	44	33	237	224	-	-	572
9	Kawlchaw 'E'	60	154	134	18	24	126	91	-	-	288
10	Kawlchaw 'E'	47	96	115	20	33	45	44	-	-	211
11	Lower Theiva	135	290	261	41	38	206	168	-	-	551
12	Lungbun	62	167	174	28	36	141	127	-	-	341
13	Lungbun	106	230	228	40	44	174	158	-	-	458

14	Phusa	-	-	-	-	-	-	-	-	-	-
15	Ainak	132	285	274	75	60	206	190	-	-	559
16	Siata	105	260	263	47	59	200	174	-	-	523
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
17	Siata	74	174	169	37	31	112	116	-	-	343
18	Tuisumpui Old	34	98	102	15	14	81	83	-	-	200
19	Tuisumpui New	69	196	198	36	34	136	113	-	-	394
20	Niawhtlang – I	23	51	53	10	17	13	11	-	-	104
21	Niawhtlang – I	101	224	263	48	52	151	129	-	-	507
22	Niawhtlang – I	27	74	87	23	17	49	56	-	-	161
23	Niawhtlang – II	98	283	264	62	54	181	167	-	-	547

SAIHA URBAN CHARGE

Sl. No.	Name of Village	Number of Household	Sex		No. of Children 0-6		No. of literates		No. of illiterates		Total
			Male	Female	Male	Female	Male	Female	Male	Female	
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	Saihatlangkawn - I	118	300	311	49	60	199	192	101	119	611
2	Saihatlangkawn – I	116	320	301	56	44	256	246	65	54	621
3	Saihatlangkawn - I	111	287	303	45	52	234	225	53	78	590
4	Saihatlangkawn - II	118	288	300	54	45	235	247	53	53	588
5	Saihatlangkawn - II	131	320	368	48	64	270	290	50	80	688
6	New Saiha ‘E’	128	338	337	52	51	267	257	72	79	675
7	New Saiha ‘E’	103	253	270	52	39	201	217	53	52	523
8	New Saiha ‘E’	158	392	399	63	66	327	329	65	70	791
9	New Saiha ‘W’	103	281	277	47	33	228	232	53	45	558
10	New Saiha ‘W’	141	337	327	50	46	275	274	62	53	664
11	New Saiha ‘W’	131	385	374	45	41	106	90	45	41	759
12	New Saiha ‘W’	116	308	282	42	52	250	220	58	62	590
13	New Saiha ‘W’	120	320	273	265	226	55	47	-	-	593
14	College Veng - I	112	357	321	64	48	284	256	73	65	678
15	College Veng - I	132	343	381	49	42	293	331	50	50	724
16	College Veng - II	141	394	421	77	76	314	341	80	80	815
17	College Veng - II	139	433	398	63	52	357	343	76	55	831
18	New Colony – I	83	233	206	32	31	199	173	34	33	439
19	New Colony – I	122	420	398	69	66	347	326	73	72	818

20	New Colony – I	118	349	315	49	46	294	260	55	55	664
21	New Colony – II	58	151	138	28	19	121	118	30	20	289
22	New Colony – II	181	467	464	67	72	391	371	77	92	931
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
23	New Colony - III	70	207	203	34	28	159	170	48	33	410
24	New Colony – III	83	251	250	37	33	201	199	50	51	501
25	New Colony – III	136	360	405	42	42	298	342	62	63	765
26	Council Veng	80	215	195	29	15	180	166	35	29	410
27	Council Veng	103	266	253	57	36	199	192	67	61	519
28	Council Veng	64	154	165	18	23	136	141	18	24	319
29	ECM Veng	88	248	239	38	37	208	193	40	47	487
30	ECM Veng	45	131	125	27	15	106	109	25	16	256
31	Old Saiha - I	92	279	271	38	36	235	233	42	40	550
32	Old Saiha – I	72	220	226	41	37	170	171	50	55	446
33	Old Saiha – I	76	213	227	31	30	175	179	38	48	440
34	Old Saiha - II	124	300	306	24	29	267	263	34	42	606
35	Old Saiha – II	57	157	148	24	23	131	129	24	21	305
36	Old Saiha - III	96	284	245	50	20	230	215	55	28	529
37	Old Saiha – III	52	136	138	21	17	110	113	26	25	274
38	Meisavaih ‘E’	88	260	246	43	35	199	175	61	71	506
39	Meisavaih ‘E’	89	261	255	46	38	214	204	48	50	516
40	Meisavaih ‘W’	60	171	183	31	28	135	132	35	52	354
41	Meisavaih ‘W’	87	248	240	33	30	209	180	39	60	488
42	Meisatla	91	256	197	23	34	211	150	45	47	453
43	Meisatla	155	398	375	57	61	318	270	81	104	773
44	Meisatla	117	276	272	48	33	221	229	55	43	548
TOTAL		4605	12,602	12350	2158	1951	9640	9540	2256	2318	24549

TUIPANG R.D.BLOCK

Sl. No.	Name of Village	Number of Household	Sex		No. of Children 0-6		No. of literates		No. of illiterates		Total
			Male	Female	Male	Female	Male	Female	Male	Female	

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1.	Tuisih- I	106	224	227	35	37	160	149	-	-	51
2.	Tuisih - II	89	221	206	51	29	153	149	-	-	427
3.	Theiri	131	309	317	55	53	242	221	-	-	626
4.	Serkawr	93	181	172	30	27	142	117	-	-	353
5.	Serkawr	116	207	197	36	27	147	137	-	-	404
6.	Lorrain Vill	49	112	104	26	14	86	78	-	-	216
7.	New Serkawr	37	67	77	12	21	53	54	-	-	144
8.	New Latawh	123	318	285	51	35	244	201	-	-	603
9.	Tuipang 'L'	140	326	326	30	40	210	187	-	-	652
10.	Tuipang V	81	219	231	29	34	186	190	-	-	450
11.	Tuipang V	77	191	198	34	40	153	147	-	-	389
12.	Tuipang V	72	179	178	21	19	150	143	-	-	357
13.	Tuipang V	73	163	169	28	23	133	158	-	-	332
14.	Tuipang 'D'	130	274	313	40	53	227	255	-	-	587
15.	Tuipang 'D'	108	276	256	36	27	225	211	-	-	532
16.	Siatlai	64	145	149	25	28	90	91	-	-	294
17.	Zawngling (Lotai)	64	185	193	20	23	148	143	-	-	378
18.	Zawngling	121	283	315	53	53	192	189	-	-	598
19.	Zawngling	112	319	216	57	44	244	254	-	-	535
20.	Chheihlu	101	280	250	62	52	200	183	-	-	530
21.	Chakhang	153	292	332	43	45	244	260	-	-	624
22.	Chakhang	79	244	223	38	25	194	161	-	-	467
23.	Chakheitla	47	113	129	25	26	86	88	-	-	242
24.	Siasi	71	172	172	37	33	109	105	-	-	344
25.	Mawhre	98	256	283	47	47	202	217	-	-	539
26.	Chapui - I	115	283	297	31	38	219	148	-	-	580
27.	Chapui – II	86	214	251	23	55	171	145	-	-	465
28.	Khopai	138	296	335	45	55	246	265	-	-	631
29.	Ahmypi	42	113	134	18	24	93	80	-	-	247
30.	Kaisih	96	246	196	44	31	165	136	-	-	442
31.	Maisa	54	130	114	35	34	93	73	-	-	244
32.	Lohry	55	132	137	31	24	84	68	-	-	269
33.	Lawngban	119	297	310	65	53	218	247	-	-	607

34.	Lungdar	56	138	114	22	19	97	72	-	-	252
35.	Phura	132	333	303	61	39	249	232	-	-	636
36.	Phura	104	221	211	48	46	140	131	-	-	432
37.	Vahai	148	415	411	60	68	300	238	-	-	826
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
38.	Tongkolong	107	243	235	39	39	191	131	-	-	478
39.	Miepu	95	221	202	37	31	166	116	-	-	423
40.	Laki.	104	288	299	63	60	189	166	-	-	587
41.	Laki	78	219	206	52	42	159	138	-	-	425
42.	Supha	15	28	30	6	8	22	18	-	-	58
43.	Lomasu	82	170	159	32	27	112	76	-	-	329
44.	Bymari	113	245	210	52	37	178	127	-	-	455
45.	Lope	15	29	29	7	7	19	11	-	-	58
46.	Lungpuk	139	350	319	62	45	240	217	-	-	669
47.	Lungpuk	84	201	204	47	43	155	159	-	-	405
48.	Khaikhy	36	73	78	23	15	47	44	-	-	151
49.	Leisai	-	-	-	-	-	-	-	-	-	-
Total		4348	10441	10302	1824	1695	7773	7126	-	-	20743

2.3 RAINFALL DATA:

Sl.No.	Month	Avg. Rainfall (in mm)
1.	January	24.75
2.	February	24.50
3.	March	25.68
4.	April	84.68
5.	May	363.25
6.	June	535.58
7.	July	589.25
8.	August	323.00
9.	September	351.37
10.	October	158.12
11.	November	82.75
12.	December	4.625
	Total	2567.55 mm per year

2.3.1 Total No. of rain recording stations in the District: 03

- 2.3.2 Location of rain recording stations:** 1) Agriculture Department, Saiha
2) DRO Office, Saiha
3) DM&R Branch, D.C. Office Saiha

2.4 HISTORICAL BACKGROUND:

Mizoram, then known as Lushai Hills was annexed to the British India in 1891. Before that entire Mizoram including the present Saiha District was ruled by the hereditary chiefs, and then known as Lals. Each chief used to have one or more villages under his control and each chief was independent of each other. When the British annexed Lushai Hills, they placed the North Lushai Hills under the government of Assam while the southern Lushai Hills was placed under the government of Bengal. Each district was in the charge of a Superintendent. In 1898, the southern Lushai Hills was transferred to the Assam administration. After the Independence, the Deputy Commissioner replaced the Superintendent and the Lushai Hills continued to be one of the districts of Assam.

In 1954, the Lushai Hills district was renamed as Mizo District and the present Saiha District was a part of the erstwhile Pawi-Lakher regional Council with its headquarters at Saiha. When Mizoram became a Union Territory and was divided into three districts, Saiha became the headquarters of the Chhimtuipui district. Saiha District was formerly under Chhimtuipui District of Mizoram comprising Mara Autonomous District Council, Lai Autonomous District Council and Chakma Autonomous District Council. When the state Government created other 5 (five) new Districts, Lai and Chakma Autonomous District Council Area become a new District and are under Lawngtlai District in 1999.

Saiha District is situated in the Southern part of Mizoram, and its capital town is Saiha. The District has an area of about 1399 sq.kms covering the whole scheduled areas of the Mara Autonomous District council. It lies in between 22°45' to 22°60' Latitudes and 92°50' to 93°14' Longitudes. The District has been sub divided into two blocks. Saiha District is divided into two (2) administrative sub-divisions viz., Sadar Sub-Division and Tuipang Sub-Division. It is also divided into two (2) Rural Development Blocks, namely, Saiha R.D Block and Tuipang R.D Block, which covers 36 and 41 Village Councils

respectively. The district also comprises two (2) Assembly Constituencies, namely, 39-Saiha (ST) A/C and 40-Palak (ST) A/C.

Under Sadar sub-division, there are three (3) police stations located at Saiha, Kawlchaw and Lungbun. Two (2) Police stations are also located at Tuipang and Phura under Tuipang Sub-Division. 40th Bn Assam Rifles are also posted at Saiha.

Saiha District is occupied by three tribal communities – Mara, Lai and Mizo. Amongst them, Maras are the largest, followed by Lais and then Mizos. The Maras predominantly occupy almost the whole district, especially the Southern and the Western portions of the District, whereas the Lais in large numbers are found in the North-eastern of the District. The Mizos are mostly found in Saiha town.

The District is flanked in the North and West by the Lai Autonomous District Council and in the East and South by Chin Hills of upper Myanmar. The Kolodyne river locally known as ‘Beina’ (*literally means ‘Queen’*) the biggest river in Mizoram flows from North to Southern direction demarcating the district from Lawngtlai District. The largest lake in Mizoram, the ‘Palak Dil’ is located in the Southern part of the area.

2.5 SOCIO- ECONOMIC CONDITION:

Saiha district has an area of 1445 sq. km. It is divided into two administrative sub-divisions namely Saiha and Tuipang, and these are the two Rural Development Blocks. It has an Autonomous District Council namely Mara Autonomous District Council. According to MADC (LADC) Survey 2009, there are 41 villages in Tuipang R.D. block and the block population is 21,219 of which 10,589 are male and 10,630 are female. In Saiha R.D. block, there are 36 villages and the block population is 35,451 of which 17,732 are male and 17,719 are female. The most inhabitant clans are Mara, so, the district is also called Maraland. There are 131 Primary Schools, 95 Middle Schools, 33 High Schools, 4 Higher Secondary Schools, 1 College and 1 I.T.I

Saiha town is the headquarters of the district. District Officers of various departments are located in Saiha town. In Saiha town, there is 1 Civil Hospital, 1 church owned Hospital (ECM Church), 4 Primary Health Centres (only 1 functional) and 24 Health Sub-Centres which are existing in various part of the district. There is 1 Veterinary Hospital, 2 Veterinary Dispensary and 5 Animal Health Centres within the district. The district has 1 Post Office, 1 Sub-Post Offices and 21 Branch Post Offices. BSNL landline is available only at Saiha and Tuipang, GSM Network covered around 25% area, WLL covered 60% area, DSPT sets are put in unconnected village but service is poor and broadband is available in Saiha town only. There are 6 Public Distribution Centres, 5 Police Stations and 2 Police Outposts. The banking facilities exist in the district includes State Bank of India (1), Mizoram Rural Bank (2- Saiha & Tuipang) and Apex Bank Ltd (1).

2.6 CLIMATIC CONDITIONS:

Lying at the striding point of the tropic of Cancer, the District is bestowed with pleasant climate enjoying cool summer and moderate winter. There is no extreme variation of temperature at any time of the year. The average temperature is 18° C in winter and 31° C in summer. Monsoon period from May to September bring heavy rains with violent storm and thunder and the annual rainfall is 240.6 cm. During the monsoon, the rains rushed down the hill sides often causing landslide and causing destruction of many Houses and blocking of transportation routes.

Month-wise highest and lowest temperature recorded in the District

Sl. No.	Month	Max. Temp. in °C	Min. Temp. in °C
1.	May	32	19
2.	January	26	7

2.7 OCCUPATION/ ECONOMIC:

Saiha District is economically one of the most backward districts of Mizoram. About 80% of the total populations are engaged in Agriculture. Only a few people hold Government jobs oriented to cash economy. The people customarily practiced shifting cultivation or jhumming which creates deforestation leading to

soil erosion problem. The principal crops in the District are Rice, Maize, Orange, etc. People used to obtained many varieties of consumer goods imported from other Districts of Mizoram and Assam.

2.8 FLORA AND FAUNA:

The District is rich in forest resources. The entire area is covered with thick ever green forest. The hills and the valleys are mostly covered with boundless bamboo forests. A banyan tree, Gulmohar tree, and several kinds of trees and bamboos, climbers of different kinds of wild fruit are found I the district. The tropical jungle with its favorable climate makes the land an ideal sanctuary for wild animals.

2.9 RIVER SYSTEM:

Sl. No.	Name of the river	Length in Kms	Location
1.	Kolodyne (Beina)	136.50	East and West
2.	Kaao	32.50	West
3.	Pala	28.50	South-west
4.	Salyu	32.00	South
5.	Tisopi	21.50	North
6.	Titlao	18.55	North
7.	Tisi	39.00	Middle
8.	Tolyu	26.46	South-east

2.11 DRINKING WATER SOURCES

Sl.No.	Name of Block	Tube Well			Public Water Point (PHE)
		Functional	Defunct	Total	
1.	Saiha	07	06	13	17
2.	Tuipang	Nil	12	12	15

2.12 ROAD CONDITION

2.12.1 ROAD LENGTH UNDER PWD SAIHA DIVISION

1. TOWN ROAD (Surfaced)

(a) Saiha	:	31.20 Kms
(b) Tuipang	:	1.00 Kms
(c) Bualpui (Ng)	:	1.05 Kms
Total	:	33.25 Kms

2. PMGSY Road (Surfaced) : 14.00 Kms

3. PMGSY Road (Un-surfaced) : 215.70 Kms

4. Other State PWD Road : 31.00 Kms

- NB: 1) The total length of PMGSY road is 229.70 Kms. Out of which 62.00 Kms is handed over to BRO.
2) Ongoing works of PMGSY length is 47.215 Kms.

[Source: EE, PWD Saiha Division, Saiha as on December, 2011]

2.12.2 ROAD NETWORK UNDER PWD SAIHA DIVISION, SAIHA

Sl.No.	Name of Road	Length
1.	Saiha- Niawhtlang – Chakhang – Chheihlu Road	
	1) Saiha – Niawhtlang	14.00 Kms
	2) Niawhtlang – Lungbun	7.00 Kms
	3) Lungbun – Chhualung	9.00 Kms
	4) Chhualung – Siata	20.00 Kms
	5) Siata – Chakhang	8.00 Kms
	6) Chakhang – Chheihlu	12.00 Kms
2.	Saiha – Rawmibawk	00 – 22.30 Kms
	1) Saiha – Riasikah Road	17.00 Kms
	2) Riasikah – Romibawk Road	5.00 Kms
	3) Romibawk – Phalhrang Road	11.44 Kms
3.	Kawlchaw – Serkawr – Tuipang Road	
	1) Kawlchaw – Serkawr	12.00 Kms
	2) Serkawr – Tuipang ‘L	14.00 Kms
4.	Kawlchaw – Niawhtlang – Phura – Tawngkolong – Lawngmasu	
	1) Kawlchaw – N. Serkawr	12.00 Kms
	2) N. Serkawr – N. Latawh	8.00 Kms
	3) N. Latawh – Lohre	12.00 Kms
	4) Lohre – Maisa	10.00 Kms
	5) Maisa – N. Kaisih	10.00 Kms
	6) N. Kaisih – Phura	2.00 Kms
	7) Phura – Tawngkolong	12.00 Kms
	8) Tawngkolong – Longmasu	28.94 Kms

5.	Theiri – Tuisih Road	7.40 Kms
6.	Zawngling – Chapui Road	00 – 42.00 Kms
	1) Zawngling – Chheihlu	20.00 Kms
	2) Chheihlu – Mohre	10.00 Kms
	3) Mohre – Chapui	12.00 Kms
7.	Chhualung – Ainak Road	10.925 Kms
8.	Saiha – Tuisumpui Road	16.16 Kms
9.	Maisa – Lawngban Road	7.85 Kms
10.	Phura – Vahai Road	17.00 Kms
11.	Phura – Lungpuk via Mipu-Supha Road	33.54 Kms
12.	Chhualung – Phusa Road	3.5 Kms
13.	Lungpuk – Khaikhy Road	6.72 Kms



14.	Saiha – Tuisumpui Road	16.16 Kms
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[Source: EE, PWD Saiha Division, Saiha]

2.13 TRANSPORT FACILITIES (as on March, 2011):

No. of Boat		No. of Excavator		No. of Truck & Lorries		No. of Gypsy		No. of Jeep		No. of Motor Car		No. of Maxi Cab		No. of Two wheeler	
G	P	G	P	G	P	G	P	G	P	G	P	G	P	G	P
		-	21	2	320	71	112	2	296	6	194	-	121	8	227

2.14 MEDICAL FACILITIES:

DH/ FRU	1
Number of PHC	4 (Only 1 fully functional, rest non-functional)
No. of Sub- Centres	24
No. of Clinic	7
Crude Birth Rate	25.36
Crude Death Rate	2.36
Infant Mortality Rate	54.78 (30 State)
MMR	8.16 (25 State)
No. of Doctors	14
No. of Staff Nurse	35
No. of Health Supervisor	6
No. of Health Workers	54

2.15 DRUGS STORE WITHIN SAIHA TOWN

Sl.No.	Name of Drugs store	Proprietor with address	Remark
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1.	V.L. Drugs Store		Registered
2.	L.B. Drugs Store		- do -
3.	C.V.B. Medical Store	N. Nadaw, New Colony	- do -
4.	V.T. Medical Store	P. Zapovei, New Colony	- do -
5.	Mami Drugs Store	Hmangaihzaui, N.Colony	- do -
6.	Haler Drugs Store	K. Heleni, New Colony	Not registered
7.	Salem Drugs Store	Salema, New Colony	Not registered
8.	K. Merry Drugs Store	K. Merry, Bazar	Registered
9.	ECM Nursing Home	ECM, New Colony	Registered
10.	J.H. Medical Store	Zothanpuui, New Saiha	- do -
11.	Lifeline Pharmacy	Kamthiamlal, New Saiha	- do -
12.	Joe Medical Store	Aizama, New Saiha	- do -
13.	Maruata Drugs Store	Maruata, Saihatlangkawn	- do -
14.	Chhangte Medical Store	Saihatlangkawn	Not registered
15.	Lab Drugs Store	Ngosi, Meisatla	- do -

[Source: Superintendent, Taxation Deptt, Saiha]

2.16 FINANCIAL INSTITUTION

Sl. No.	Name of the Institution	Address	Telephone No.
1.	State Bank of India	Vengpui, Saiha	222017
2.	Mizoram Rural Bank	New Saiha, Saiha	222857
3.	Mizoram Rural Bank	Tuipang	280496
4.	Mizoram Cooperative Apex Bank	Council Veng, Saiha	226169

2.17 LIST OF NGOS

Name of NGOs	Area of Operation	Contact Add. (President & Secretary)
M.T.P Gen.	MADC Area	9436149303 (President) 9436750277 (Secretary)
Y.M.A Group	District	9436149952 (President)
Y.L.A Sub-Hqrs.	District	9436149086 (President) 9436393815 (Secretary)
M.CH.P Gen.	MADC Area	9436149278 (President) 9436149427 (Secretary)
M.H.I.P Sub-Hqrs.	District	9436149011 (President) 9612135482 (Secretary)
L.W.A Sub-Hqrs.	District	9612447862 (President) 9862853576 (Secretary)
M.S.O Hqrs	MADC Area	9436149067 (President) 9436149732 (Secretary)

2.18 GEOMORPHOLOGY:

Physiographically, the district is represented by North-South trending hill ranges with serrated top and hogback pattern. The hills are highly dissected and separated by intervening 'V' shaped narrow valleys. Numbers of Perennial streams flow through the district from North to South and joint the Kalodyne River. The entire area of the District is covered with thick forest. Many steep hills ranges running in the different directions plunge the valley of rushing rivers, creating deep gorges and features. Many hill ranges are separated from one another by several ridges and furrows. The average altitude of the hill is 1226 meters. Many rivers run through the land, the more prominent ones are the Kolodyne or Beina, Tisi, Pala, Tisopi and Tuitlawk.

Physiographically, the District is characterized by north-south trending parallel to sub-parallel hill ranges with synclinal narrow valleys. The hills are steep and separated by rivers, which flow either to north or to the south, creating deep gorges. Basically, these are structural hills. The denudation and weathering is still under going in response to various processes. One of the dominant processes of the formation of such landform is running water. Based upon relief, drainage, lithology and structural pattern, the district has been divided into two major units i.e. (a) denudostructural hills and (b) valley fills.

- a. **Denudostructural hills:-** The district is mostly occupied by denudostructural hills, i.e. the processes of denudation have not yet obliterated the structural features such as dip facet and strike trend, anticline and syncline.
- b. **Valley fills:-** The valley fills are unconsolidated alluvial and colluvial patches of limited areal extent deposited by rivers/streams and occur in the southern part of the district.

2.19 GEOLOGY:

The whole area falls under Middle Bhuban Formation of Surma group of Miocene age. The main rock types are shale, siltstone and sandstone. There are about 12 fault lines generally along NW-SE & SW-NE, there are three remarked anticlines, viz. Tongkolong, Khuhlu & Vaiha, and two synclines, viz. Kalodyne and Tuipang.

The area shows rugged and immature topography with prominent relief. The physiographic expression of the area is imparted by approximately N-S trending hill ranges and valleys. The altitude of the hill increases towards the east, and in general, the western flanks of the ridges are steeper compared to the eastern flank. The highly dissected ridges with the formation gorges and spurs are due to intensive erosion.

2.20 SOIL TYPES:

The soils of the district, in general, have been derived from parent rock such as ferruginous sandstones, shale, alluvial and colluvial materials. In general, the soil formations have been categorized in to following groups.

- a) **Hills:** It includes colluvial soil, formed along the steep side slope because of accumulation of material on slope surface.
- b) **Valleys:** Occur as a mixture of colluvial and alluvial materials. It is restricted to the valley fills along the rivers/streams courses.
- c) **Terraces:** These are remnants of deposits of cobbles and pebbles, which make it excessively drained.

CHAPTER 3

HAZARD/RISK, VULNERABILITY & CAPACITY ANALYSIS

This chapter largely deals with the disasters that Saiha district experienced. Based on this, the vulnerability assessment of people and their income sources, infrastructure, crops, livestock resources, drinking water supply, daily necessities, communication and transportation system, public distribution, medical facilities and other elements has been done so that such elements can be safely shifted to, or to be taken care of before any unexpected disaster or during the disasters.

The entire district falls under multiple hazards. Let us discuss the different risk/hazard and vulnerability that may occur in the entire district.

3.1 CYCLONE:

Cyclone form over the ocean and is caused by evaporated water that comes off of the ocean and becomes a storm. The southern regions of Mizoram are highly vulnerable to cyclone due to close of Bay of Bengal, which is one of the developments of cyclone and high altitude. The saddles of the hills are more prone to cycle havocs as they do not have natural barrier that can obstruct cyclone.

Mizoram Remote Sensing Application Centre observed that Saiha district is the most vulnerable disaster among all the districts. During their study, there are 77 villages in Saiha district, twenty three of them, i.e. 29.87% are falling in the high vulnerable areas, thirty three, i.e. 42.86% are in the medium vulnerable areas and twenty one, i.e. 27.27% are in the low vulnerable areas (MRSAC, December 2004).

3.1.1 The village-wise vulnerability in cyclone is as follows:-

Sl. No.	Name of Villages	Vulnerability
1	Ahmypi	L
2	Ainak	M
3	Bymari	M
4	Chakhang	M

5	Chapui	L
6	Chheihlu	M
7	Chhualung	L
8	College Veng, Saiha	M
9	Council Veng, Saiha	M
10	Dariry Veng, Tuipang	L
11	Kaisih	L
12	Kawlchaw 'E'	H
13	Khaikhi	H
14	Khopai	L
15	Laki	L
16	Lawngban	M
17	Lehri (New Latawh)	M
18	Longmasu	M
19	Lope (Zyhne)	L
20	Lungbun	H
21	Lungdar (Lodaw)	L
22	Lungpuk	L
23	Maila	M
24	Maubawk 'Ch'	M
25	Mawhre	L
26	Maubawk 'L'	H
27	Meisa Veng, Saiha	M
28	Meisatla	M
29	Mipu	M
30	New Colony, Saiha	H
31	New Latawh	L
32	New Saiha	H
33	New Serkawr	L
34	Niawhtlang	H
35	Old Saiha (Saiha Vengpui)	L
36	Phalhranga	M
37	Phura	M
38	Phusa	L
39	Rawmibawk (Amotla)	M
40	Riasikah	M
41	Saihatlangkawng	H
42	Serkawr	H
43	Siasi	L
44	Siata	M
45	Siatlai	M
46	Supha	L

47	Theiri	M
48	Theiva	H
49	Thingsen Veng, Saiha	H
50	Tongkolong	H
51	Tuipang 'L'	M
52	Tuipang 'V'	M
53	Tuipui Ferry	L
54	Tuisih	H
55	Tuisumpui	M
56	Vahai	M
57	Zawngling	H
58	Zero Point	H

[L= Low, M= Medium, H= Heavy]

3.2 LANDSLIDE:

Due to heavy rain fall, loose soil and unstable geology, most of villages in the district experiences landslides every year. Landslides badly affected National and State Highway frequently, mostly during monsoon period. The district capital as well as villages' transportation and communication have often troubles due to landslides.

3.2.1 Location Prone to Landslide in the district:-

Saiha R.D. Block: New Colony, College Veng, Tlangkawn, Council Veng, New Saiha, Old Saiha, Thingsen, Meisatla, Niawhtlang, Lungbun, Phusa.

Tuipang R.D. Block: Theiva, Zero point, Zawngling, Maubawk 'L', Kawlchaw 'E', Serkawr, Khaikhy, Chakhang, Kaisih, Lope, Bymari, New Latawh, Siatlai, Tuipang 'V', Tuipang 'L', Theiri, Ainak, Siata, Riasikah, Rawmibawk.

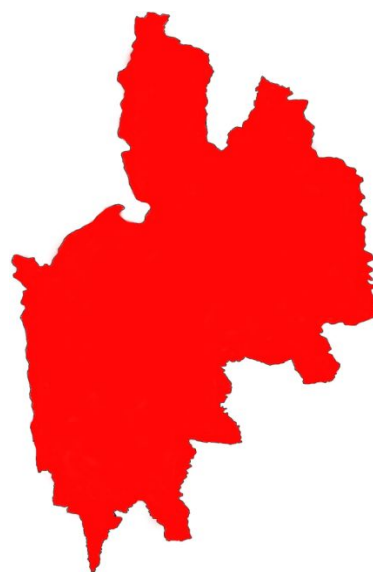
3.3 FLOOD:

Flash floods bring about disasters. There was a critical situation in some parts of the district in 1995 after 16th and 17th May cloud burst. Most of the rivers, viz. **Chhimtuipui (Kolodyne)** and **Tuitlawk** were overflowing and there was a loss of life and property.

3.3.1 Location Prone to Flood in the district:- Kawlchaw ‘E’, Tuipui ‘Ferry’, Phura.

3.4 EARTHQUAKE:

The Indo-Myanmar subduction is passing through Mizoram in the north-south direction and a mega earthquake on this source will be felt very strongly throughout Mizoram. Because this is a major seismic source zone, it is reasonable to use a moment magnitude 8 for its MCE, less than that for the Sumatra region. Even though there are local faults in Mizoram, the effect of the mega thrust earthquake will overshadow their effects. That is why; the district also lies in a **Seismic Zone V**, which is most vulnerable to earthquakes. And due to absence of building bye laws, the present construction of houses may bring great damage to the district.



3.5 ROAD ACCIDENT:

There is a good network of pucca and kaccha road in the district with 292.95 km of state highway and village roads. Out of which 229.70 km are PMGSY road, ongoing works of PMGSY length is 47.215 Km. Most of the accidents occur during rainy season due to slippery roads, and also negligence of driving and drinking.

MOTOR ACCIDENT RECORDED AT SAIHA POLICE STATION IN 2010-MAR., 2011				
Month	No.of Accident	Type of Vehicle	Fatal	Injured
January	2	Motor car (taxi)	1	3
February	1	407	-	2
March	-	-	-	-
April	-	-	-	-
May	2	1) Auto-rickshaw 2) Truck: due to slippery of road	2) 1	2) 4
June	1	Bus (Theiva- Maubawk)	3	12

July	-	-	-	-
August	1	Bus (Zero- Maubawk)	-	7
September	-	-	-	-
November	1	Auto-rickshaw	-	3
December	1	Mahindra Pick-Up (Ainak-Chhualung)	2	10
Jan., 2011	1	Motor car (taxi)	-	5
Feb., 2011	2	1) Motor car (Getz) 2) Pick-Up	1) 1 2) -	1) 1 2) 6
Mar., 2011	3	1) Motor car 2) 407 3) Pick-Up	1) 2	2) 1 3) 3

3.6 FIRE- FOREST/ HOUSE:

Forest fires are occurring due to practice of jhum cultivation, the district experience every year. Because of forest fires, 2 persons are dead in recent years, and also increasing deforestation. House fires are again man made due to carelessness, sparking of electricity wires and faulty equipment.

3.7 DROUGHT:

There was a long spell of drought in 1998 and 2005 causing huge loss of agriculture crops during Kharif season in the district. Many streams dried up and paddy as well as other cereal seeds of jhumming could not germinate. Based on past experience of drought we should have proper emergency management plan to lessen the damage done by it.

3.8 EPIDEMICS:

Epidemics are disasters, which can hit the District any time. While normally a disaster due to epidemic is likely to hit after the onset of the monsoon due to bacteria and insects, nevertheless epidemics can also take place at any other time due to water contamination, etc.

3.9 RECORD OF PREVIOUS DISASTERS IN SAIHA DISTRICT:

In the district records, no major disaster has been mentioned for the last 25 years, except a single case of cloud burst on 16th and 17th May, 1995 leading to massive loss of property. Most of the other disasters for which compensation has been given or registered as untoward incident are minor cases of accidents, which may not come under the definition of a Disaster.

Sl. No.	Name of the Disaster	Month/ Year	Remarks
1.	Village Fire	7 th September,	Riasikah village burnt, 24 houses

		1970	affected, shifted to Saiha
2.	Forest Fire	March, 1986	15 houses are burnt at Niawhtlang
3.	Cloud burst, Landslide	17 th May, 1995	24 dead, 13 injured, 303 houses fully damaged, 1099 houses affected. Road, Electric & water supply are badly affected, e.g. 140 landslide spots only in 16 kms (Zero-Saiha), or 476 slides only in 132 kms of BRTF road. The district cannot connect from the rest of the state for a month.
4.	Flash flood	18 th October, 1995	1 dead
5.	Hailstorm, Cyclone	19 th May, 1997	94 houses affected in the district
6.	Earthquake	22 nd November, 1997	M _w 6.1 ; No casualty
7.	Riot	1998	Political riot: Zawngling, Khawpai, Laki & Siata. Houses damaged, many person injured and 1 jeep burnt
8.	Drought	1998	772 families affected
9.	Earthquake	4 th March, 2001	No casualty
10.	Forest fire	25 th August, 2003	5 boys dead near Tuisih river
11.	Drought	2005	330 families affected
12.	Fire	16 th January, 2006	SBI Saiha Branch building caught fire from nearby tea-stall. About ` 4.5 worth goods damaged, 19 houses affected. No casualty.
13.	Flood	July, 2006	2509 houses affected
14.	Rodent Attack (Mautâm)	2007	65 villages & 2889 families affected, 99.7% crop loss from affected areas, total loss in terms of Rupee @ ` 20,000/- per MT is ` 82,160,000/-
15.	Landslide	August, 2008	4 dead at New Colony, Saiha
16.	Forest Fire	9 th February, 2010	1 dead
17.	Landslide	October, 2010	Pucca house: 20 fully, 37 severely & 12 partially damaged
18.	House Fire	23 rd October, 2010	Partially damaged. No casualty
19.	House Fire	24 th Nov., 2010	Fully damaged. No casualty
20.	Forest Fire	February, 2011	1 dead
21.	Earthquake	4 th February, 2011	M _w 6.4; III-IV MMS in Mz ; No casualty
22.	Electrical disaster	25 th March, 2011	9 dead (11 KV line at New Serkawr – New Latawh road)
23.	Drought	Every summer, without fail, the people of Saiha District face a serious problem due to scarcity of water supply. All public/local water points dry up, creating a major problem to all residents of Saiha District.	

3.10 DISASTER PROBABILITY IN THE DISTRICT

TYPE OF HAZARD	MONTH OF OCCURRENCE
----------------	---------------------

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	September	OCTOBER	NOVEMBER	DECEMBER
CYCLONE				←→								
LANDSLIDE			←→	←→	←→	←→	←→	←→	←→			
DROUGHT	←→	←→	←→							←→	←→	←→
VILLAGE FIRE	←→	←→	←→	←→	←→					←→	←→	←→
FLOOD							←→	←→	←→			
EARTHQUAKE	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→	←→

3.11 RISK ANALYSIS

Sl.No.	Type of Hazards	Potential Impact	Vulnerability	Vulnerable Areas
1	Cyclone	Loss of crop, infrastructure, human and bovine life, livelihood system, houses, private and public properties etc., cattle, livestock.	Communication network, shelter, infrastructures, power system, water supplies, transport system, human beings, livestock. Agriculture, educational institutions.	Whole district
2.	Landslide	Loss of crop, infrastructure, human and bovine life, livelihood system, houses, private and public properties etc., cattle, livestock.	Agriculture and forest resources, communication and transport network, water supplies, irrigation, livestock and institutions.	Some parts of the district
3.	Flood	Loss of crop, agricultural produce disrupted, spread of diseases, epidemics.	Agriculture, embankments, livelihood and livestock.	Some parts of the district
4.	Earthquake	Loss of crop, infrastructure, human and bovine life, livelihood system, houses, private and public properties etc.,	Communication network, shelter, infrastructures, power system, water supplies, transport system, human beings, livestock. Agriculture,	Whole district

		cattle, livestock.	educational institutions.	
5.	Fire	Huge loss of property, forest area, loss of medicinal plant and forest resources	Human beings and livestock, forests, environment, loss of properties and valuable assets.	Whole district
6.	Drought	Failure of farming, loss of crops, scarcity of water supplies, livestock.	Crops, irrigation sources, livestock and drinking water supplies.	Whole district

3.12 RESOURCE INVENTORY AND CAPACITY ANALYSIS

Considering the backwardness of the district it is analyzed that sufficient resources are not available within the district. Material resources, monetary resources and human power are not sufficient to manage any larger calamities.

3.12.1 DEPLOYMENT OF MIZORAM POLICE PERSONNEL IN DIFFERENT POLICE STATION/ OUTPOST WITHIN SAIHA DISTRICT (As on April, 2011):

District Executive Force (DEF)			District Special Branch (DSB)	
Rank	Station strength	Present strength	Station strength	Present strength
S.P.	1	1	NIL	NIL
A.S.P	1	NIL	NIL	NIL
DY. S.P.	1	1	NIL	NIL
INSPECTOR	2	2	1	NIL
INSPR (M)	1	1	NIL	NIL
S.I	15	15	3	1
S.I (M)	4	4	2	1
STENO- III	1	1	NIL	NIL
A.S.I	17	13	2	2
A.S.I (M)	4	2	2	1
H.C.	17	17	NIL	NIL

DRIVER	14	13	1	1
CONST	149	141	12	9
IV GRD	10	10	1	1
DUFTRY	1	1	1	1
TOTAL	238	222	25	17

3.12.2 M.P.R.O:

Stations	Inspector	S.I	A.S.I	H.C	C/ GD	FLR
Saiha	1	2	3	9	2	1
Tuipang	-	1	-	2	1	-
Phura	-	-	-	2	-	-
Kawlchaw	-	-	-	2	-	-
Lungbun	-	-	-	2	-	-
TOTAL	1	3	3	17	3	1

3.12.3 FIRE AND EMERGENCY SERVICES

Station Officer	:	1
Constable	:	3
Firemen	:	3
Driver	:	2
Total	:	10

Allotment of Fire tender:-

Regn. No.	Type of Vehicle	On/ Off road	Condition of Vehicle
MZ-01D-9681	407 Turbo Water Bowser	On road	O.K.
MZ-01D-6664	Pick up fire tender	On road	O.K.

3.12.4 CIVIL SOCIETY ORGANIZATIONS

The Non-Governmental Organizations (NGOs) working in district Saiha play a significant role in educating the public on various social issues and their rights. Disaster Management is one of the major subjects for them and the District Administration has already started collaboration with such organization for community level disaster management planning.

Two Adventure clubs viz. Beino Youth Adventure Club and Meisavaiah Adventure Club are utilized and trained as 'District Search and Rescue Team'.

3.12.5 FCS&CA STORAGE FACILITIES WITH CAPACITY

S. No.	Location	Year	Approx. Capacity	Area	Contact Number
1.	Saiha SDC	1987	8000	140' x 30'	223018
2.	Bualpui	1987	3000	36' x 18'	262167
3.	Lungpher	1992	2000	50' x 20'	226021
4.	Vawmbuk	1986	1500	30' x 20'	9436379158
5.	Lungtian	1991	1500	30' x 20'	9436149630
6.	Sangau	1994	3000	50' x 20'	2553179
7.	Niawhtlang	1995	3000	50' x 20'	226503
8.	Chhualung	1993	3000	50' x 20'	9612588096
9.	Chakhang	1995	2800	48'x 20'x 10'	9436379677
10.	Tuipang	1995	3000	50' x 24'	9436764632
11.	Tuisih	1992	3000	50' x 20'	229222
12.	Zawngling	1995	3000	50' x 20'	280007
13.	Chapui	1991	1500	30' x 20'	280001
14.	Vahai	1997	3000	50' x 20'	224107
15.	Laki	1991	1500	30' x 20'	280007
16.	Maubawk	1994	1500	30' x 20'	222579
17.	Siata	1992	3000	50' x 30'	280308
18.	Kawlchaw	1985	4500	60' x 24'	9436379607
19.	Serkawr	1991	3000	60' x 18'	222579
20.	Phura	1991	1500	30' x 20'	222704
21.	Tongkolong	1994	3000	50' x 20'	
22.	Lungpuk		1500	30' x 20'	
23.	Phalhrang		1500	30' x 20'	222331

3.13 PREPAREDNESS ANALYSIS

District Disaster Management Authority is taking a series of initiatives to prepare the community, administrators and other stakeholders to deal with any disastrous situation efficiently. As part of preparedness the following initiatives have been taken up:

Sl. No.	Name of Program (2010)	No. of Participants
1.	School Safety Training	72
2.	District Level Advocacy Workshop	24

3.	Training on Safe Construction	113
4.	Community Based Disaster Risk Management (CBDRM)	46

Earthquake report:

<http://asc-india.org/recent.htm>

http://earthquake.usgs.gov/earthquakes/eqarchives/last_event/world/world_india.php

Cyclone forecast:

<http://www.imd.gov.in/section/nhac/dynamic/cycwindfc.htm>

<http://www.imd.gov.in/section/nhac/dynamic/obtrack.htm>

CHAPTER 4

CASE STUDY: SAIHA TOWN SINKING AREA

4.1 INTRODUCTION

Saiha town lies at the southernmost town in Mizoram; it is the district capital of Saiha District as well as headquarters of Mara Autonomous District Council. It is located at a distance of about 385 kms southeast via Lunglei town. The town is approachable by NH-54. State Highway connected from Tuipang and from Sangau by seasonal road. It falls under Survey of India Toposheet No. 84 B/15 and situated in between 22°29' – 22°30' latitude and 92°58' – 93° longitude.

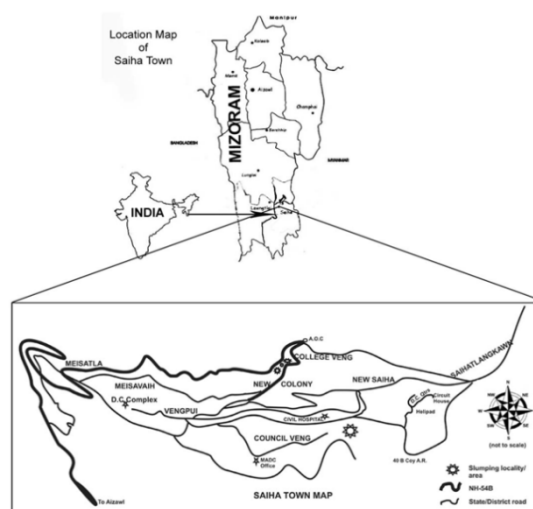


Fig. 1. Location of Study Area

The slumping localities in Saiha town are **New Colony, College Veng** and **Council Veng**, respectively. New Colony and College Veng localities are situated at the western side of Saiha town, while Council Veng at the eastern side. The anticline ridge of Civil Hospital road breaks up the location of New Colony-College Veng block to Council Veng block.

4.2 RAINFALL & CLIMATE

Saiha town receive high rainfall with an average of 2578.39 mm per annum. During winter the temperature ranges from 8°C to 22°C and the temperature ranges from 18°C to 27°C during summer.

4.3 GEOLOGY & GEOMORPHOLOGY:

Saiha town is made up of Middle Bhuvan Formation of Surma Group. The main rock types are shale, sandstone and siltstone. There are many local fault lines, which controlled the stream lines. Since, shale is the main rock type, it easily weathered by the action of water, then transformed into clays. These weathered products are observed along the stream line and along the NH-54B road section. Medium to fine grained grey to yellow bedded sandstones are mostly deposited along the stream. There is no proper bed rocks exposure. The general strike of the beds trends N5°W/ N5°E – S5°E/ S5°W with dip ranges from 30° to 65° either towards east or west. Development of joints and faults are abundance.

The slopes are characteristically steep, ranges from 35° to almost vertical, i.e. 90°. Because of thick regolith/ debris (2 to 20m), the slope morphology is changes. High rate of erosion at the toe regions results vertical slope. Generally, the western limbs of the anticlines are steeper than the eastern limbs.

4.4 OBSERVATIONS

4.4.1 NEW COLONY:

The slumping area covering an area of about 200 sq.m, coordinates between N22°29' 26.46" – E092°58' 53.94" at the



southern main scarp, and N22°29' 27.84" – E092°58' 55.32" at the northern main scarp. At the toe region, along NH-54B, it coordinates between N22°29' 32.34" – E092°58' 48.48" at 979m in south and N22°29' 31.8" – E092°58' 54.9" in north. The height of main scarp to the nearest rupture surface ranges from 1.5ft to 7ft respectively, and the height distance between the main scarp at N22°29' 26.46" – E092°58' 53.94" (1078m) and toe (bottom of earth flow) at N22°29' 41.7" & E092°58' 45.78" (881m) is 197m. The area comprises two village councils *viz.* New Colony- I & New Colony- III respectively.

According to local people, the northern side of New Colony-I & III area suffered big landslides in around 1920, again in 1960 and 1995. Transverse cracks are noticed from 23rd July, 2002. 10 transverse cracks along NE-SE & NS direction are identified during geological field work on October, 2010. About 180 houses are affected including one boarding school, *i.e.* Auxilium H/S, one middle school, *i.e.* New Colony M/S and one primary school, *i.e.* New Colony- III P/S. These transverse cracks are about 1 to 13 inches wide and about 5 to 32 m. One big transverse crack (fault) along NW-SE direction was observed, which severely affected four residential houses.

There is no proper bed rock exposed in this area. The geological structures in this area differ considerably. At the border of New Colony and College Veng, between N22°29' 33.36" – E092°58' 56.58" along the NH-54B road section, 13 inch thick grey sandstone intercalated with 2 inch shale bed of about 12ft thick exposed was observed. This bed strikes N80°W and dip amount is 29° towards east.

The **CCI College Veng block in New Colony-III**, the area where intersect with College Veng observed as the **most vulnerable disastrous subsidence area in the town**. It is situated between N22°29' 30.18" & E092°59' 1.74" at the crown at the height of 1075m to N22°29' 41.1' & E092°58' 46.86" at the toe at the height of 880m. No bed rock was observed, only thick regolith about 24 m.



The fishpond of about 40'x20' situated near CCI church may increase the gravitation force. The resisting force at the toe region is weak due to high erosion, thick regolith and no proper bedding. 4 transverse cracks of about 1 to 6 inches wide, along NW-SE direction are observed at the toe region. 2 houses situated near the coordinates between N22°29'37.44" & E092°58'51.24" at the height of 968m are highly vulnerable to sliding.

4.4.2 COLLEGE VENG:

About 60 houses affected by slumping in College Veng area. The area situated between N22°29'32.16" & E092°59'2.7" at the crown at 1081m to N22°29'36.66" – E092°58'57" at the toe. 6 transverse cracks along NS, NE-SE, EW & NW-SE directions are observed. These transverse cracks are about 1 to 5 inches wide. At Seidia chava (*'chava' means 'stream'*), at N22°29'35.94" & E092°59'5.94" at 1056m, there is an exposure of shale bed along the NH-54 road striking N20°E and dip 17° W, this type of rock bed exposed again at N22°29'38.2' & E092°58'43.87" at 881m striking N50°E and dip amount is 13°W.

4.4.3 COUNCIL VENG:

Council Veng subsidence area was noticed from 1989, and again in 1995. About 40 houses are affected in this subsidence. The main scarp situated at N22°29'16.92"& E092°58'58.8" at the height of 1136 m and the toe at N22°29'9.6"& E092°58'55.32" at 1020 m (*fig. 6*). On September 2010, an area of about 20 sq.m slumping was observed, destroyed one kutcha house.

There is no proper rock bed in the area. About 7ft siltstone was exposed at the toe, at N22°29'8.4" & E092°58'54.78" at 1020m near Region stream striking N42°W and dip 20°E. Bluish weathering shale of about 3ft thick was observed at N 22°29'14.04" & E092°58'56.04" at the height of 1126m near the LIKBK church. One transverse crack was observed along NS- direction at the toe of Civil Hospital hill. The height of the main scarp to the rupture surface ranges from 5ft to 16ft. Without proper mitigation measure, the Civil Hospital road may slide due to continuous slumping.

5.1 PREPAREDNESS

This protective process embraces measures which enable governments, communities and individuals to respond rapidly to disaster situations to cope with them effectively. Preparedness includes the formulation of viable emergency plans, the development of warning systems, the maintenance of inventories and the training of personnel. It may also embrace search and rescue measures as well as evacuation plans for areas that may be at risk from a recurring disaster.

Preparedness therefore encompasses those measures taken before a disaster event which are aimed at minimizing the loss of life, disruption of critical services, and damage when the disaster occurs. All preparedness planning needs to be supported by appropriate legislation with clear allocation of responsibilities and budgetary provisions.

5.2 MITIGATION

Mitigation embraces all measures taken to reduce both the effect of the hazard itself and the vulnerable conditions to it in order to reduce the scale of a future disaster. Therefore mitigation activities can be focused on the hazard itself or the elements exposed to the threat. Examples of mitigation measures which are hazard specific include modifying the occurrence of the hazard, e.g. water management in drought prone areas, avoiding the hazard by sitting people away from the hazard and by strengthening structures to reduce damage when a hazard occurs. In addition to these physical measures, mitigation aims at reducing the physical, economic and social vulnerability to threats and the underlying causes for this vulnerability.

Proper preparedness and mitigation measures instantly help to respond a disaster in time. So disaster wise preparedness and mitigation is highly required. These are normal time activities. A prepared community is the best community to minimize the loss and damage caused by the disasters. Mitigation focuses on various ways and means of reducing the impacts of disasters on the communities through damage prevention. It is hazard specific including both structural and non-structural issues. It is also very strategic

rather than the description of various methods of resistant construction technologies.

5.3 PREPAREDNESS AND MITIGATION MEASURES

Preparedness and mitigation measures towards various disasters certainly help to reduce the risk as well as loss and damage of the life and properties caused by different disasters.

5.3.1 GENERAL PREPAREDNESS MEASURES

1. *Establishment of the Control Rooms*

The district administration should ensure the operation of control rooms. The control rooms are presently run by major line departments at Police, Hospital, etc. at district level should be functional.

2. *Plan Updating*

Disaster Management Plan needs updating at every interval. It includes the skilled manpower, their addresses and contact numbers, necessary equipments, medicinal stock, daily necessities, list of flood prone villages etc. All these things have to be updated after a certain interval of time.

3. *Communication System*

Training is given for search and rescue teams, first aid teams' disaster management teams at village and district level. These teams will provide timely help during any type of disaster. Provision of wireless sets at two Sub-divisions for effective communication of cyclone, heavy rainfall, flood warning. Widespread community awareness programmes in flood prone villages so that villages are sensitized about the flood hazard and there are no problems when there is need for evacuation.

4. *Training for Disaster Management Team Members*

Each of the DMTs comprise groups of women and men volunteers and are assigned with a special task. The Search and Rescue Teams, First Aid Teams formed at the three levels should be provided training from time to time so that their timely help can be used during disaster.

5. *Organization of Mock Drills*

Mock drill is an integral part of the Community based disaster management plan, as it is a preparedness drill to keep the community alert. Mock drills are organized in all the villages of the district to activate the DMTs and modification of the DM plan. Mock drill is organized once in six months as per the seasonality calendar of natural disaster events that is likely to occur.

6. *Community Awareness on Various Disasters*

1. Construction of Earthquake Resistant Structures
2. Retrofitting the weak structures
3. Construction of breast wall, retaining wall, etc. to increase resisting force for preventing landslide and embankments for flood control
4. Rehabilitation of people in safe lands

5.3.2 DISASTER-WISE MITIGATION MEASURES:-

A. *Cyclones*

Cyclone is quite frequent in many villages of the district. Strict enforcement of flood zone regulations need to be done to prevent constructions. Community awareness should be built up so that people respond effectively to the cyclone.

1. The onset of cyclones is extensive and often very destructive. A hazard map will illustrate the areas vulnerable to the cyclone in any given year.
2. Land use control will reduce the danger of life and property when waters inundate the floodplains and the coastal areas. In areas where people already have built their settlements, measures should be taken to relocate to better sites so as to reduce vulnerability. No major development should be permitted in the areas which are subjected to high flooding. Important facilities should be built in safe areas.

B. *Landslide*

1. Providing better surficial drainage system, road-side drains, feeder, drains, contour drain trench drains, chutes, culverts, etc. at appropriate areas and locations.

2. 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.
3. Provision of various retaining structures such as breast wall, retaining wall, toe- wall, etc. to restore the stability of the hill slopes which are already under threat.
4. 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.
5. Construction of multi-storied buildings or heavy structures should be complete ban on hill slopes. Even for small buildings and houses, the foundation should be on the bed rock rather than on the loose overburden.
6. 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.
7. Where the head ward 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.
8. Where two erosions by streams cause instability of the slopes by under cutting, diversion structures may be constructed to divert the stream flow.
9. Stone quarrying along road sides and dumping of debris on slopes should be curtailed.
10. 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.

C. *Drought*

1. Looking 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- acts on the lesson from the past.
3. Keep the reservoirs, dams, water, harvesting structures, etc. filled up with available water.
4. Release of water to irrigation and drinking to be done economically and to reduce transmission loss.
5. Drinking water should get precedence over agriculture.
6. If the water supply is from reservoirs, regulate supply to enable it last till the monsoon comes.
7. Launch awareness drive; build on traditional practice for economic use of water.
8. 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.

D. *Road Accidents*

1. Setting up of a Highway Safety Patrol along the Saiha- Kawlchaw highway, which will be a specialized division of the highway police to tackle road accidents.
2. Provision of adequate signboards, speed breakers and guard stones/ steels near the accident prone spots.
3. The risk at the accident-prone spots must be minimized by adequate construction/ resurfacing/ widening etc.

E. *Epidemics*

1. Health department needs to be provided with more water quality monitoring centres for effective surveillance of water quality principally during the monsoon months and during flood events.
2. Bleaching powder should be adequately available with all the villages.
3. Rural hospitals should be upgraded to include blood bank and surgical facilities.

4. Contingency plan for response should be prepared after identifying the epidemics that are likely to occur in the region.
5. Maps of all the health facilities in the region with an inventory of drugs and vaccines, laboratory set ups, list of number of doctors and supporting staff etc. need to be kept ready and updated at regular intervals.
6. First aid training will help to cope better during the emergency response period for epidemics.
7. Personnel protection through vaccination is an effective mitigation strategy and will protect the persons at risk.
8. Improving the sanitary conditions, drive to check and fumigate breeding places of any vector, disinfecting the water source, etc.

F. *Fires*

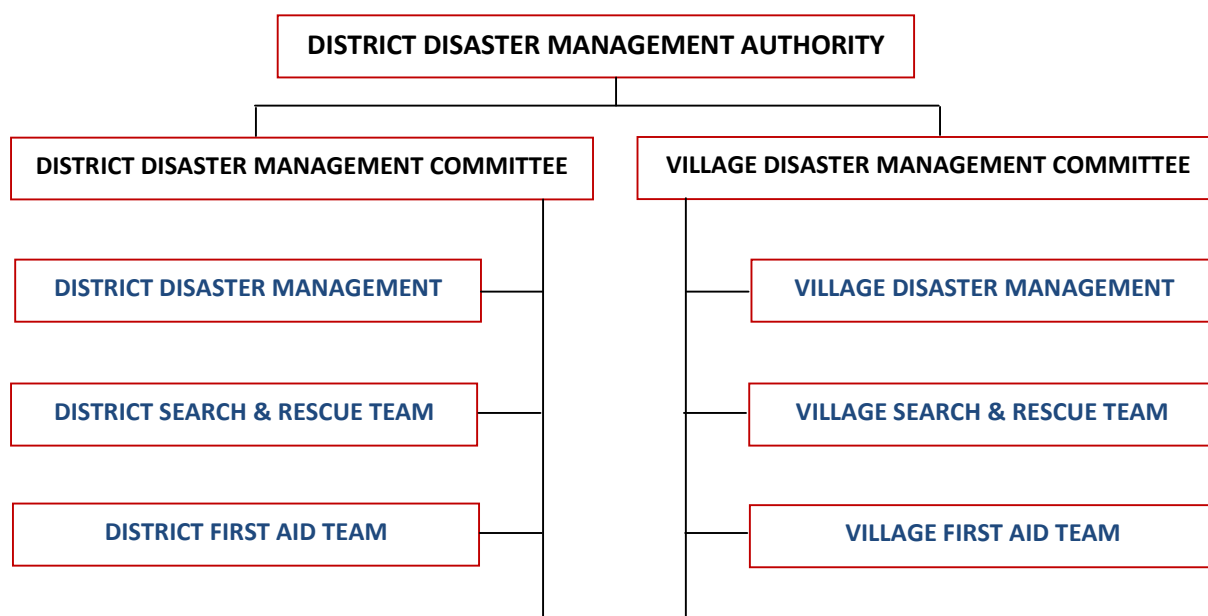
1. Identify vulnerable forest areas prone to fire damage annually and prepare a fire damage map.
2. Prepare fire treatment map based on danger ratings for various localities.
3. Clearance of fire lines which are absolutely necessary by controlled burning along the highways, village roads, foot-paths, plantations, regeneration areas, protected areas and electricity transmission lines, etc.
4. Constitution of Village Fire Protection Committee, Sub-Divisional and District Level Fire Protection Committees. All these committees shall be of permanent nature.
5. Establishment of green belt of evergreen tree species to serve as brake for fire spreads in the critical areas where fire occurs repeatedly as a part of normal afforestation programme.
6. Effective communication system for early detection of fire incidence through fire watchers and carrying out intensive patrolling during dry season.

7. Educating the grazers and villagers on the detrimental effect of fire hazard by holding public meetings, distribution of leaflets, display of banners and awareness through different media.
8. Deployment of modern fire fighting devise to prevent and suppress forest fire.
9. Observing Fire Prevention Week/ Day to create mass awareness among the public.
10. Imparting training to staff and villagers for fire fighting.
11. Strict enforcement of existing Fire Protection Regulation Act.

CHAPTER 6

INSTITUTIONAL MECHANISM FOR DISASTER MANAGEMENT

The disaster management will be more effective and sustainable if it is institutionalised. For this purpose Government of India has already passed Disaster Management Act on 23rd December, 2005, where it is clearly outlined that a Disaster Management Authority to be formed at the district level. It will be the apex body at the district level. Disaster management would involve many layers of participating organization. The three focal levels would be State, District and the site of the disaster. The State level agencies would be involved in policy/decisions making, resource and budget allocation and monitoring through the State Emergency Operations Centre. Similarly, at district level a District Disaster Management Authority is already formed and activated to mitigate any unexpected situation in the district. There are seven members included in this authority.



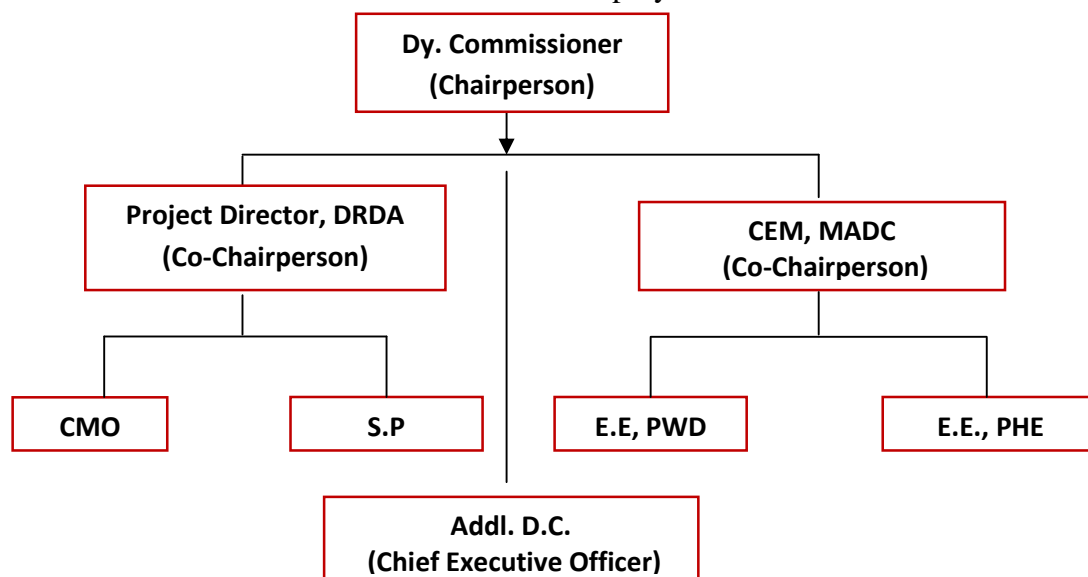
6.1 DISTRICT DISASTER MANAGEMENT AUTHORITY

As per the Government Notification No., B 13011/17/2006- REH dated 6th June, 2006 the following are the composition of DDMA and its powers and functions:

The members of the DDMA shall be:-

1. Chairperson : Deputy Commissioner (Ex-Officio)
2. Co-Chairperson : CEM, MADC/ Project Director, DRDA
3. Members:
 - 1) Superintendent of Police
 - 2) Chief Medical Officer
 - 3) Executive Engineer, PWD (Govt. Nominated)
 - 4) Executive Engineer, PHE (Govt. Nominated)

1. Chief Executive Officer: Additional Deputy Commissioner



The District Disaster Management Committee (DDMC) is an apex planning body and plays a major role in preparedness and mitigation.

The District Disaster Management Authority works as the District planning, coordinating and implementing body for Disaster Management and take various measures for the purpose of Disaster Management in the District in accordance with the guidelines laid down by the National or State authority.

Powers and Functions of District Authority as per *Section 30 of DM ACT, 2005* are as under:-

- (i) Prepare a disaster management plan including district response plan of the district
- (ii) Coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan
- (iii) Ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities
- (iv) Ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as lay down by the departments of the Government at the district level and the local authorities in the district
- (v) Give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary
- (vi) Lay down guidelines for prevention of disaster management plans by the department of the Government at districts level and local authorities in the district;
- (vii) Monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level;
- (viii) Lay down guidelines to be followed by the Departments of the Government at the district level for purpose of integration of measures for prevention of disaster and mitigation in their development plans and projects and provide necessary technical assistance therefore;
- (ix) Monitor the implementation of measures referred to in clause (viii);
- (x) Review the state of capabilities for responding to any disaster or threatening disaster situation in the district and give direction to the

relevant departments or authorities at the district level for their up gradation as may be necessary;

- (xi) Review the preparedness measures and give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the level required for responding effectively to any disaster or threatening disaster situation;
- (xii) Organize and coordinate specialized training programmes for different levels of officer, employees and voluntary rescue workers in the district;
- (xiii) Facilitate community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, governmental and non-governmental organizations;
- (xiv) Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
- (xv) Prepare, review and update district level response plan and guidelines;
- (xvi) Coordinate response to any threatening disaster situation or disaster;
- (xvii) Ensure that the Departments of the Government at the district level and the local authorities prepare their response plans in accordance with the district response plan;
- (xviii) Lay down guidelines for, or give direction to, the concerned Department of the Government at the district level or any other authorities within the local limits of the district to take measures to respond effectively to any threatening disaster situation or disaster;
- (xix) Advise, assist and coordinate the activities of the Department of the Government at the district level, statutory bodies and other governmental and non-governmental organization in the district engaged in the disaster management;
- (xx) Coordinate with, and give guidelines to, local authorities in the district to ensure that measures for the prevention or mitigation of threatening disaster situation or disaster in the district are carried out promptly and effectively;

- (xxi) Provide necessary technical assistance or give advise to the local authorities in the district for carrying out their functions;
- (xxii) Review development plans prepared by the Departments of the Government at the district level, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation;
- (xxiii) Examine the construction in any area in the disaster and, if it is of the opinion that the standards for the prevention of disaster or mitigation laid down for such construction is not being or has not been followed, may direct the concerned authority to take such action as may be necessary to secure compliance of such standards;
- (xxiv) Identify buildings and places which could, in the event of any threatening disaster situation or disaster, be used as relief centers or camps and make arrangements for water supply and sanitation in such buildings or places;
- (xxv) Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- (xxvi) Provide information to the State Authority relating to different aspects of disaster management;
- (xxvii) Encourage the involvement of non-governmental organizations and voluntary social-welfare institutions working at the grassroots level in the district for disaster management;
- (xxviii) Ensure communication systems are in order, and disaster management drills are carried out periodically;
- (xxix) Perform such other functions are the State Govt. Or State Authority may assign to it or as it deems necessary for disaster management in the District.

Powers and Functions of District Authority **in the event of any threatening disaster situation or disaster** as per *section 33 under DM ACT, 2005:-*

- a) Give directions for the release and use of resources available with any Department of the Government and the local authority in the district.

- b) Control and restrict vehicular traffic to, from and within, the vulnerable or affected area.
- c) Control and restrict the entry of any person into, his movement within and departure from, a vulnerable or affected area.
- d) Remove debris, conduct search and carry out rescue operations.
- e) Provide shelter, food, drinking water and essential provisions, healthcare and services.
- f) Establish emergency communication systems in the affected area.
- g) Make arrangements for the disposal of the unclaimed dead bodies.
- h) Recommend to any Department of the Government of the State or any authority or body under that Government at the district level to take such measures as are necessary in its opinion.
- i) Require experts and consultants in the relevant fields to advise and assist as it may deem necessary.
- j) Procure exclusive or preferential use of amenities from any authority or person.
- k) Construct temporary bridges or other necessary structures and demolish structures which may be hazardous to public or aggravate the effects of the disaster.
- l) Ensure that the non-governmental organisations carry out their activities in the equitable and non-discriminatory manner.
- m) Take such other steps as may be required or warranted to be taken in such a situation.

6.2 DISTRICT DISASTER MANAGEMENT TEAM:

As per D.C. Notification No.B. 16012/22/03-DC(S) dated 12th June, 2006, the following designated officers are the Saiha District Disaster Management Team Chairman and Secretary.

1. First Aid & Medical Team

Chairman	:	Chief Medical & Health Officer, Saiha
Secretary	:	SDM & HO, Saiha

2. Search & Rescue Team

Chairman : Superintendent of Police, Saiha

Secretary : O/C, MRHG, Saiha

Team Members (No.D/89/RO-SHA/10/1093, 20th Oct., 2010):-

Sl.No.	Rank & Name	Sl.No.	Rank & Name
1.	SI. Lalsangliana	2.	SI George Iahmingzauva Chinzah
3.	ASI PC Lalramnghaka	4.	ASI C. Lalsangliana
5.	C/-46 Lalpiangthawna	6.	C/-78 Beithlalo
7.	C/-66 Lalrintluanga	8.	C/-139 B. Vanlalhlua
9.	C/-93 MS. Dawngliana	10.	C/-81 Lalramliana
11.	C/-130 A. Lalnunmawia	12.	C/-85 JK. Mahto
13.	C/-188 B.Lalzazova	14.	C/-180 S.Ramdinsanga
15.	C/-76 Zebadi	16.	C/-86 C.Lalzara
17.	C/-80 AK. Chauhan	18.	6458 CPL Sangliana
19.	5045 E/CPL Rokhai	20.	6458 CPL Sangliana
21.	4555 GM Thale	22.	5982 L/CPI Robinson
23.	5274 GM Darhminga	24.	5685 GM Lalramthlenga
25.	5038 GM Rehen	26.	5275 Gm Remsangpuia
27.	504 GM Raju Zosiama	28.	56777 GM LB Rolua
29.	266 GM Zathy	30.	285 GM Vachho

3. Shelter Management Team

Chairman : Executive Engineer, PWD Saiha

Secretary : Superintendent of Excise, Saiha

4. Food & Water Management Team

Chairman : District Civil Supply Officer, Saiha

Secretary : SDO-I PHE, Saiha

5. Relief Coordination Team

Chairman : Project Director, DRDA, Saiha

Secretary : District Agriculture Officer, Saiha

6. Information & Damage Assessment

Chairman : District Research Officer, Saiha

Secretary : Information & Public Relation Officer, Saiha

7. Trauma Cancelling Team

Chairman : Sr. Executive Secretary, ECM Hqrs., Saiha

Secretary : SDM & HO, Civil Hospital Saiha

6.3 EMERGENCY OPERATION CENTRE:

Saiha District has an exclusive Emergency Operation Centre (EOC) at the Office of the Deputy Commissioner. The District EOC is functional of five days in a week during office hours and is manned by two DFOs (District Field Officer) and PSA (Project Support Associate). The District EOC has certain equipments for dealing with any unforeseen disasters (the list of available equipments is given below). Considering the unique responsibility of the district Emergency Operation Centre, the equipments provided to it shall not be taken to any purpose other than disaster management. This centre is intended to coordinate all disaster related activities in the district starting from preparedness to rehabilitation and reconstruction.



There shall be permanent sitting place for each emergency Support Functions (ESFs) in the EOC and they shall be provided with sufficient telephone connection. Only the Nodal ESFs are to sit in the EOC and coordinate the disaster management activities in the district with their support agencies. There shall be dedicated telephone lines and other communication facilities.

6.3.1 LIST OF EQUIPMENTS IN THE DISTRICT EMERGENCY OPERATION CENTER:

Sl. No.	Name of Equipment	Quantity	Remarks
1.	Figure of 8	3	Serviceable
2.	Rapelling mitten	4	- do -
3.	Ascender Jumer	4	- do -
4.	Digital Camera (Olympus)	1	- do -
5.	Photo copier (Sharp: ARM-201)	1	- do -
6.	Jumper	4	- do -
7.	Alluminium Ladder (20 ft)	2	- do -
8.	Climbing Rope (10 mm)	2 bundles	- do -
9.	Climbing Rope (8 mm)	1 bundle	- do -
10.	Tape Atrier	2	- do -
11.	Body Harness	4	- do -

12.	Heavy duty Work glove	2	- do -
13.	Climbing Helmet	120	- do -
14.	Carabiner (Screw type)	10	- do -
15.	Carabiner (plain)	10	- do -
16.	Sit Harness	4	- do -
17.	Pulley	2	- do -
18.	Rain Coat	10	- do -
19.	Stretcher	3	- do -
20.	Sledge Hammer	2	- do -
21.	LCD Screen	1	- do -
22.	Petromax	3	- do -
23.	Head Lamp	3	- do -
24.	Megaphone	1 + 6	- do -
25.	Emergency Light	2	Kept by Chairman, DDMA
26.	Portable Inflatable Lighting System	1	Serviceable
27.	Printer	1	- do -
28.	Generator Honda: Model – EXK 2000 AC, 1600 V.A Petrol Start, Kerosene run	1	Kept by Chairman, DDMA
29.	Fax machine (Sharp FOP- 610)	1	Kept by Chairman, DDMA
30.	Laptop (Wipro)	1	Kept by DFO (Training)
31.	Projector	1	Serviceable
32.	Rain Gauge	1	- do -

6.3.2 ROLE OF EMERGENCY OPERATION CENTRE IN NORMAL TIME

The Deputy Commissioner of Saiha District may be 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 equipments in the EOC are in working condition;

2. Collection 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 District Disaster Management Plan
5. Maintenance of data bank with regular updating
6. Activate the trigger mechanism on receipt of disaster warning/occurrence of disaster.

6.3.3 ROLE OF EMERGENCY OPERATION CENTRE 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, which play a vital role during emergencies. Issuing correct and timely warning would be one of the prime responsibilities of EOC. For effective dissemination of warning EOC should have a well-planned line of communication. The DC shall be the competent authority to disseminate a disaster warning. The warning on occurrence of a disaster will also be communicated to:

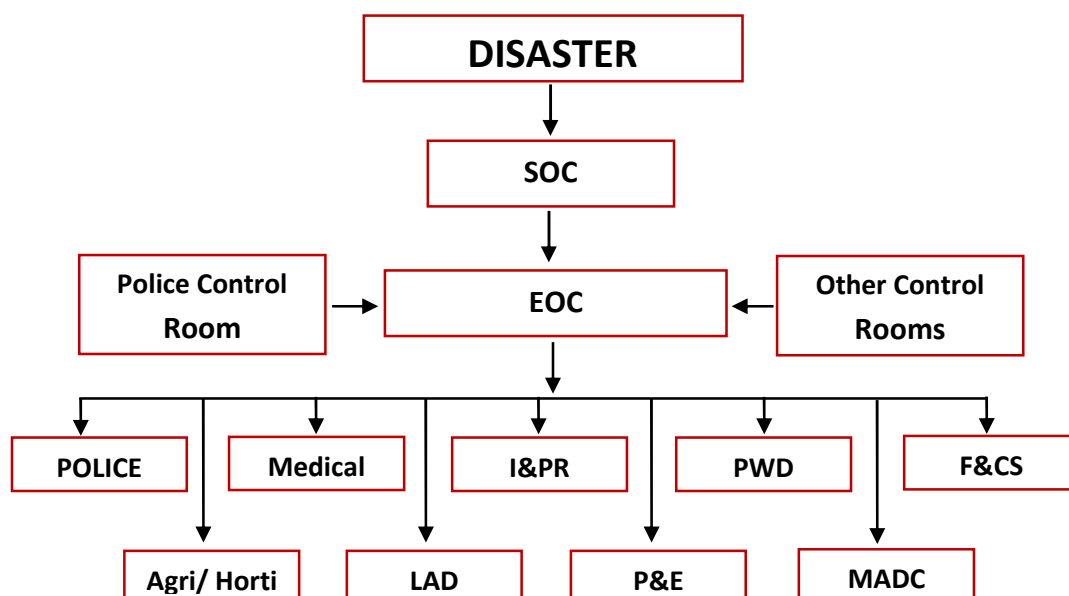
1. All Emergency Support Functions
2. Members of District Disaster Management Authority, Saiha
3. Hospitals in the disaster area
4. State Relief Commissioner
5. EOC in the neighbouring districts
6. State EOCs
7. NGO representatives from the district

Apart from this the District Emergency Operation Centre must arrange desks for the Emergency Support Function in its complex for better coordination and help. Simultaneously the onsite EOCs are to be set up with the help of the district EOC. Constant communication between the State EOC, District EOC and Onsite EOC is mandatory for updates on the disaster, which happened.

6.4 SITE OPERATION CENTRE (SOC):

Site Operation Centre (SOC) is a complementary unit to the DEOC would operate close to the district site. This will be directly linked with the DEOC. It is the local community who would set up such operation centre at the locality level in order to coordinate various activities of evacuation, rescue and relief operations. Volunteers from locality supplemented by re-enforcements from the neighbourhood will conduct large scale relief operations waiting for government agencies to reach the site, once the mantle of responsibility is assumed by the local functionary to take away the charge of co-ordination. Thus, if the SOC has already been set up by D.C. should not assume charge but will be responsible for assisting, monitoring and evaluation the centre. He shall ensure that rescue and relief operations are carried out smoothly.

If SOC has not been set up on the first visit of the site, the officer so deputed from the District Administration viz. SDO, BDO or other officers conveniently 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.



6.5 EMERGENCY SUPPORT FUNCTIONS:

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 in Saiha District.

ESF	FUNCTION	NODAL AGENCY	SUPPORTING AGENCIES
ESF-1	COMMUNICATION	BSNL	I&PR, NIC, MPRO
ESF-2	EVACUATION	D.C.	Police, Fire Services, Civil Defense, NCC, Army, PWD (State & MADC), PHE (State & MADC)
ESF-3	SEARCH AND RESCUE	POLICE & FIRE	POLICE, BEINO & MEISAVAIH ADVENTURE CLUB, 40 B COY A.R.
ESF-4	LAW AND ORDER	POLICE	HOME GUARDS, CIVIL DEFENSE, 40 B COY ASSAM RIFLES
ESF-5	MEDICAL RESPONSE & TRAUMA COUNSELLING	HEALTH DEPTT	CIVIL DEFENSE, NSS, DHS
ESF-6	WATER SUPPLY	PHE (State)	PHE & LAD (District Council)
ESF-7	RELIEF	Food & Civil Supplies	NGOs
ESF-8	EQUIPMENT SUPPLY, DEBRIS AND ROAD CLEARANCE	PWD (State)	PWD & LAD (District Council)
ESF-9	HELP LINES, WARNING DISSEMINATION	D.C.	NIC, MPRO, I&PR, NGO
ESF-10	ELECTRICITY	P&E (State)	P&E (District Council), NGOs
ESF-11	TRANSPORT	MST	PWD (State & Council)

The basic structure of the ESF depends up on the functions they are supposed to perform. Altogether there are 11 ESFs in Saiha District each ESF is led by the nodal department in the district and assisted by the other parallel civic bodies.

CHAPTER 7

STANDARD OPERATING PROCEDURE

7.1 INTRODUCTION

Standard Operating Procedure is the procedural operations that have to be followed to reduce repairs time to minimum in any eventuality of disaster to activate the entire civil administration defense system.

In order to lay down SOP for different intensity of disaster the concept of L – 0, L – 1, L – 2 and L – 3 will be used in Saiha District as in line with recommendation of high power committee of disaster management plan, department of Agriculture/Co-operation, Govt. of India.

7.1.1 L – 0 or Ordinary Level: is to devote normal times when the disaster management team should be maintaining a close watch over the state of preparedness of each type of disaster.

Some Drill may be necessary at this level. A Drill shall include that all disaster management plans that are ready at different levels should be updated in the last weeks of April and rehearsal in the first week of May. Rehearsal should be evaluated at every level.

7.1.2 L – 1 or Level One : This is the starting point of a disaster situation, which when reported from any quarter would set into motion, without formal orders from anywhere. Some basic initial management response steps alerting all concerned according to predetermined procedural drill for each type of disaster. Basic action to mitigate the impact of the

disaster would also be taken simultaneously along with rescue and relief measures.

7.1.3 L – 2 or Level Two: This level require total attention of the district administration. This would show Triggering off some basic initial management response steps, predetermined for each type of disaster which would be set into motion without formal orders from any quarter. The mitigation, relief and rescue activities would swing into action simultaneously.

7.1.4 L – 3 or Level Three: This is the last level or the disaster of the greatest intensity. When this perception takes place, some basic initial management response steps, predetermined for each type of disaster, would be set into motion without formal order from anywhere. The corresponding mitigation, relief and rescue activities would swing into action simultaneously.

7.1.5 The L – 0, L – 1, L – 2, L – 3 level would be determined for each type of disaster by the corresponding manager/officer at the district level.

7.1.6 The entire exercise is essentially to determined the level L – 0, L – 1, L – 2, L – 3 along with this action that need to follow as well as the various authorities that need to be attended and activated would also need to be predetermined.

7.1.7 A disaster may start at a low key (L – 1) and may develop overtime to a more serious level (L – 2) and later become a major disaster (L – 3).

7.2 SEQUENCE OF ACTION TO BE TAKEN AT THE TIME OF DISASTER

- In the event of disaster, the DC, Saiha or District Emergency Operations Centre (EOC) and SP, Saiha should be informed immediately about the incident. Then, these two officers would inform the concerned officials based upon the kind of disaster. Besides, immediate relief and rescue operation will be started at the places.

Then, the DC will inform the level of disaster and accordingly action will be taken.

- Irrespective of whether the area is small or big, the area should be demarcated by wire or haisian cloth, so that no one except only those trained in disaster management and officials would be permitted to enter the demarcation zone. And the site operation centre should be established near the demarcation area to see overall management and coordination. One or more officials will be in charge of this and he will be assisted by local NGO's, VC's, MTP etc.
- The trained electrician should be used to stop the electric current at the site of the disaster, if there is remains of electric wire to prevent electrocution, electric shock burns etc.
- The fire brigade should see whether there is any possibility of fire and should extinguish if there is no fire at the site of disaster.
- The medical team should be sent immediately to provide first aid medical help and look after any injuries. If any severe/serious injuries happen, should be sent directly to the nearby hospital immediately.
- Rescue party should be sent immediately to rescue any person alive at the disaster place and search for the missing person should be done immediately.
- Welfare party should be sent immediately to look after dead bodies and carcass of animals. If there are any severe injuries, the welfare party will look after their transportation to nearby hospital and arranged any material required to be brought to the site operating centre. The dead bodies should be put in a coffin and then buried.
- Any properties and valuable items should be kept carefully and protected, so that there are no missing properties and valuable items. In order to do this, no person except the disaster management teams/official will be allowed inside the demarcated area.
- If the disaster occurs at night, the lighting should be provided to the site operating centre immediately.
- If the disaster happens at rainy days, the affected area should be cordoned and covered by tarpauline/silpauline immediately.
- Different aspect of relief and rehabilitation of the affected persons should be started immediately. Eg. Clothing, shelter, food, etc.

- The overall management will be look after by the DC or any other officials present at the site designated by DC or in their absence by the village level disaster management team including NGO's, VCP's, MTP, etc.

7.3 S.O.P FOR EMERGENCY SUPPORT FUNCTIONS (ESF)

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 National Disaster Management Guidelines.

The Standard Operating Procedure (SOP) 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 activates the response plan during the emergency period.

The major functions of the incident command system are summarized as follows. Nevertheless, they are to be released in cooperation of all the ESFs and participating agencies in disaster management. The incident commander is given with full control and command over the entire teams in district level.

ESF 1: COMMUNICATION

Background

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 Assumption

- There would be a congestion in the network because of increased calls to control rooms due to panic created in the community.

- The initial reports on damage may not give a clear picture of the extent of damage to communication network.
- The affected site may cut off from the state control rooms and the officials on site and find difficulty in communicating to the District/State EOC

Nodal Agency : Bharat Sanchar Nigam Limited (BSNL)

Supporting Agencies : NIC, MPRO and I&PRO

SOPS for Nodal Agency :

- Team Leader (TL) of Communication ESF will activate the ESF on receiving the intimation of occurrence of the disaster from the District EOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL requests 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.
- Based on information given by the supporting agencies, TL decides on the need to launch an assessment mission to estimate the extent of damage to telecom services and network as well as to come up with possible arrangements to establishing reliable and appropriate network.
- TL communicates situation to supporting agencies and also requests to provide details on the status of equipment and infrastructure in the affected area (s).
- TL informs the Incident Commander on the status of telecom services.
- TL works out a plan of action for private telecom companies and convenes a meeting of all ESF members to discuss and finalize the modalities.
- TL issues orders to establish systems and reports to DEOC on the action taken. New phone numbers and details of contact persons would also be communicated. If required mobile exchanges would be deployed.
- TL gets the temporary telephone facilities established for the public. Prior information on this would be announced through media.

- TL sends the District Quick Response team at the affected site with the required equipments and other resources.

SOPS for Quick Response Team on Communication

- The QRT (Quick Response Team) members will reach to the nodal office as soon as they will get instructions from the TL.
- Once the QRTs receive any intimation from the nodal officer to reach at the site they would rush to the site.
- At the emergency site QRT members will take stock of the situation from the IC and would also know about their counter parts.
- QRTS would assess the ground situation and would send sectoral report to the District ESF agency.
- A sectoral report would contain following :
 - An assessment of overall damage, listing specifically.
 - Overhead route damage (in miles/kilometers).
 - Cable damage (in yards/meters).
 - Specific equipment damaged.
 - Establish a temporary communication facility for use by the public.
 - Identify requirements of manpower, vehicles and other materials and equipments Give priority and concentrate on repairs and normalization of communication system at disaster-affected areas.
- Begin restoration by removing and salvaging wires and poles from the roadways with the help of casual laborers.
- Carry out temporary building repairs to establish a secured storage area for the equipments and salvaged materials.
- Report all activities to head office.
- Begin restoration by removing and salvaging wires and poles from the roadways through recruited casual laborers.
- Establish a secure storage area for incoming equipments and salvaged materials.

PRESS BRIEFINGS

Press briefings play a very important role in Disaster Management. Daily press briefs will be issued athours. Written information will be issued.

MESSAGE TO PUBLIC

Message to public over All India Radio Aizawl, Lunglei, District I&PRO, NSV Cable Network, HSV Cable Network and local papers should be specific. Apart from the warning, it should include the following three points.

- a) Remain alert.
- b) Take shelter in nearest pucca building/save shelters/School & Other safe places.
- c) Keep cattle tied in open spaces/let free.
- d) Keep sufficient dry food for emergency.

1. Regular contact at intervals with D.C, Addl. D.C, SDO's, BDO's and all the nodal officers of line department, SP Police, Civil Defense, Police Control Room.
2. Written orders shall be issued for identifying places for **starting free kitchens** for at least 3 days.
3. Keep **spare copies of District maps**. Jurisdiction maps of all irrigation divisions shall be kept ready in good numbers.
4. Place requisition with SP for supply of temporary VHF sets for CMO, DVO, PWD, PHE, P&E and concerned officials.
5. Contact Geological & Mineral Resources Department, Mizoram.
6. **Requisition** School/College for Army/Police forces.
7. Direct all field officers to keep sufficient oil for running **generator**.
8. Direct all police stations to keep **spare batteries for VHF**.
9. Looking at the onset of emergency and after making quick preparations **convene Emergency meeting** of important official and non-official agencies. Give them clear instructions on the above manner.
10. Make a **Duty Roster** of Important Officials for uninterrupted functioning of DEOC & immediate implementation of the Relief/Rescue Programme.

ESF 2: EVACUATION

Background :

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

- Most of the buildings would be damaged and would not remain serviceable.
- Many structures would be damaged and there would be an urgent need to evacuate.

Nodal agency : Office of the Deputy Commissioner, Saiha

Supporting agencies : Police, Fire Services, Civil Defense, NCC, Army, PWD (State & MADC), PHE (State & MADC)

SOPS for Nodal Agency :

- Team leader (TL) of Evacuation ESF would activate the ESF on receiving the warning of the disaster from District EOC.
- TL would inform Nodal Officers (NOs) of supporting agencies about the event and ESF activation.
- TL will direct the QRTs to be deployed at the affected site.
- TL will gather information on availability of predefined evacuation routes.
- 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 on evacuation

- The QRT members will reach the nodal office as soon as they get instructions to do so from the TL.
- Once the quick response teams receive an order from the nodal officer for reaching the site they would rush to the site.

- 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.
- The quick response teams with the help of local task forces will start evacuating peoples to safe shelters or open areas.
- The QRT members should concentrate more on evacuation in areas that have been worst affected by the disasters.
- Reporting about all the activities to head office.

ESF 3: SEARCH AND RESCUE

Background :

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

- Local community task force will initiate search and rescue at residential level.
- Spontaneous volunteers will require coordination,
- Access to affected areas will be limited.
- Some sites may be accessible only through air routes only.

Nodal Agency : Police, Fire Service.

Support Agency : Civil Defence, MRP, Army- B Coy 40 Assam Rifles and Health Department, Youth Adventure Clubs- Beihno & Meisavaih, P&E.

SOPS for Nodal Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.
- TL would activate the District Quick Response Team.
- Quick Assessment of the S&R operations through surveys.
- Assessments of the specific skill sets and the other equipments required.
- Using IDRN network to check and map the availability of resource in and round the disaster site.

SOP for Quick Response Team on Search and Rescue

- Assessment of damage (locations, number of structures damaged, severity of damage).
- The QRTs will be deployed at the affected site.
- Enlisting the types of equipment required for conducting the S&R.
- QRTs will report the situation and the progress in response activities to the respective EOC.

ESF 4: LAW AND ORDER

Background:

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

- There would be panic and people will gather at a place.
- The crowds may go out of control.
- Riots may also take place.

Nodal Agency : Police

Support Agencies : Home Guards, Civil Defense, 40 B Coy Assam Rifles.

SOPS for Nodal Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.
- TL would activate the District Quick Response Team.
- The QRTs will be deployed at the affected site.
- Cordoning of area to restrict movement of onlookers, vehicular and pedestrian traffic should be done.
- Any additional requirements at site to be taken care of.

SOP for Quick Response Team on Law and Order

- Quick assessment of law and order situation in affected areas.
- Support and coordinate with Local Administration.

- Prepare updates on the law and order situation every 4- 6 hours and brief the Authorities.
- Controlling situations like rioting and looting, and cordon off sensitive areas QRTs will guide property and valuables in affected areas.
- Control and monitor traffic movement.
- QRTs will provide diversion of traffic on alternate routes as and when it is necessary especially heavy traffic or congested roads.
- The QRTs will also provide information about traffic flow along various corridors; 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.

ESF 5: MEDICAL RESPONSE AND TRAUMA COUNSELING

Background :

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

Situation Assumptions

- Emergency Medical service will be required by affected population.
- Likely outbreaks of epidemic diseases after the disaster.
- Hospital services would be affected.

Nodal Agency : State Health Department

Support Agencies : Civil Defense, NSS, DHS

SOPS for Nodal Agency

IC will call the TL of Primary Agency and get the ESF activated.

Team Leader (TL) of Primary Agency and get the ESF activated.

- 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.

- 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.
- Ensuring the provision and continuous supply of medical facilities. (Medicines, equipments ambulances, doctors and manpower etc) required at the disaster affected site and the hospital health centers catering to disaster victims.
- In case of orthopedic 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.
- Trained professionals should be mobilized by psychosocial support.
- Ensuring setting up of temporary information centers at hospitals with the help of ESF through help lines and warning dissemination system.
- TL will coordinate, direct and integrate state level response to provide medical and sanitation health assistances.
- On the recommendations of the EOC, the TL also responsible to:
 - Send required medicines, vaccines, drugs, plasters, syringes, etc.
 - Arrange for additional blood supply. Send additional medical personnel equipped with food, bedding and tents etc.
 - Send vehicles and any additional medical equipment.

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

- QRTs will provide situation and progress reports on the action taken by the team to the respective EOCs.
- QRTs will assess type of injuries, number of people affected and possible medical assistance needs.
- QRTs will ensure timely response to the needs of the affected victims such as :
 - Establishing health facility and treatment centers at disaster sites.
 - Providing medical services as reported by the District Civil Surgeon with District EOC and State EOCs.
 - Procedures should be clarified in between
 - Peripheral hospitals

- Private hospitals
- Blood banks'
- General hospitals and
- Health services established 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 treat or existence of an epidemic.

IMPORTANT TIPS

1. Check up the stock of medicines, bleaching powder and halogen tablets. If necessary, send immediate requisition to CMO.
2. Start movement of medicines, bleaching powder, etc. to PHCs/CHCs.
3. Ensure that medical officers are in place at the PHCs and CHCs through CMO, SDMO, Police Stations, and Blocks. CMO shall decide the locations of camps.
4. All CDPOs shall be teamed up with the MO of PHC/CHC/SC with their vehicles and supervisors.

ESF 6: WATER SUPPLY

Background:

The ESF on drinking water and water 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 :

- Existing water storage bodies will be damaged and unusable.
- There would be an urgent need of water to assist victims in rescue operation.
- Break down of sanitation system.
- Contamination of water due to outflow from sewers or due to breakage of water pipelines.

Nodal Agency : PHE

Support Agency : PHE & LAD (District Council)

SOPS for Nodal Agency

- Team leader (TL) of ESF on Water Supply will activate the ESF on receiving the intimation of the disaster from DEOC.
- TL would inform Nodal Officers (NOs) of support agencies about the event and ESF activation.
- TL will ensure special care for women with infants and pregnant women.
- Provide for sending additional support along with food, bedding, tents.
- Send vehicles and any additional tools and equipments needed.

SOP for Quick Response Team (QRT) on Water Supply

- QRTs will ensure that supply of drinking water is made available at the affected site and relief camp.
- QRTs will ensure the temporary sewerage lines and drainage lines are kept separate.
- QRTs will report the situation and the progress on action taken by the team to the EOC.
- QRTs will intimate their TL of the additional resources needed.
- Carry out emergency repairs of all damages to water supply systems.
- Assist health authorities to identify appropriate sources of potable water.
- 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.
- Arrange for alternate water supply and storage in all transit camps, feeding centers, relief camps, cattle camps, and also the affected areas, till normal water supply is restored.
- Ensure that potable water supply is restored as per the standards and procedures laid down in “Standards for Potable Water”.
- Plan for emergency accommodations for staff from outside the area.
- QRTs will ensure timely response to the needs of the affected victims.
- QRTs will set up temporary sanitation facilities at the relief camps.

ESF 7: RELIEF (FOOD AND SHELTER)

Background:

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 with the 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

- Probability of shortage of critical resources.
- Immediate assistance to the community at the time of resource shortage particularly when affected area is larger.

Nodal Agency : Department of Food and Civil Supplies

Support Agency : NGOs

SOPS for nodal Agency

- TL will activate the ESF on receiving the information of the disaster from District EOC.
- TL would inform Nodal Officers (NGOs) of support agencies about the event and ESF activation.
- TL will coordinate with all state and district level suppliers as identified with under IDRN.
- TL will coordinate with other ESFs related to transportation, debris and road clearance to ensure quality supply chain management of relief materials.
- Ensuring composite relief with availability of complimentary relief materials.

SOP for Quick Response Team (QRT) on Relief

- QRTs will report to site of the relief camps.
- QRTs will be responsible to management and distribute relief items to the affected victims.
- QRTs will be responsible for reporting the progress on action taken by the team to the EOC.

- QRTs will provide information to their TL about the need of additional resources.
- Clearing of the areas to establish relief camps.
- Setting up relief camps and tents using innovative methods that can save time.
- Assist local authorities to set up important telecom and other service related facilities.
- Initiate, direct and market procurement of food available from different inventories and ensuring food supplies to the affected population.
- Preparing take – home food packets for the families.
- Ensuring distribution of relief material to the all the people including vulnerable groups of the target area such as women infants, pregnant women, children, aged people and handicapped.
- Ensuring support to Local Administration.
- Locating adequate relief camps based on damage survey.
- Develop alternative arrangements for population living in structures that might be affected even after the disaster.

ESF 8: EQUIPMENT SUPPORT, DEBRIS AND ROAD CLEARANCE

Background :

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

Situation Assumptions

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

Nodal Agency : PWD

Support Agency : PWD & LAD (District Council)

SOPS for nodal Agency

- Team Leader (TL) will activate the ESF on receiving the information of the disaster from District EOC.
- TL would inform Nodal Officers (NGOs) of support agencies about the event and ESF activation.
- TL will coordinate with the supporting agency to mobilize equipments from the ware houses through IDRN database.
- The respective supporting agencies will contact their respective personal to move the equipments to central warehouse.
- The equipments like JCB, concrete cutters identified as per the need will be transported to the site.
- As per the information the nodal officer of Debris road clearance will make an assessment on of the damages of roads and built structures at the site and surrounding areas.
- The nodal officers of Supporting Agencies will immediately start debris clearance operation to enable movement to the affected site.
- 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 ESF's to be operational.
- All supporting agencies will inspect the road and rail network and structures within the disaster site and surrounding.
- 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 (QRT) on Relief Clearance

- Damage assessment including locations, number of structures damaged and severity of damage.
- The QRTs will be deployed at the affected site.
- Enlisting the types of equipments as compiled from IDRN resource inventory required for conducting the debris clearance.
- and relief camps, and medical facilities for disaster victims.

- The QRTs will report the situation and the progress in response activities to the respective EOCs.
- Undertake construction of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for disaster victims.
- Repairing of all paved and unpaved road surface including edge metalling, pothole patching and any failure of surface, foundations in the affected areas by maintenance engineer's staff and keeps monitoring their conditions.

ESF 9: HELP LINES, WARNING DISSEMINATION

Background :

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 logistical operations. D.C. Saiha has already made a disaster helpline, i.e. **1077**.

Situation Assumptions

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

Nodal Agency : Deputy Commissioner, Saiha

Support Agency : NIC, MPRO, I&PR, NGO Reps

SOPS for nodal Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.
- TL would activate the District Quick response Team.
- The QRTs will be deployed at the affected site.
- QRTs will report the situation and the progress in response activities to the respective EOCs.

- Sending flash news of latest updates/donation requirements for disaster area all over the state.
- Assisting the EOC in providing updated information to national as well as at the District level.
- Setting up of toll free numbers for emergency information assistance.

SOP for Quick Response Team on Help Lines, Warning Dissemination

- The QRT members will reach to the nodal office as soon as they will get instructions.
- QRT teams would reach to the site immediately after receiving instructions from the nodal officer.
- On the site QRT members will take stock of the situation from the IC at the site and their counter parts.
- The QRTs will coordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.

ESF 10: ELECTRICITY

Background:

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

Situation Assumptions

Prolonged electricity failure.

- The affected victims may be panicked.
- Halt of all activities specially jamming communication-networking systems in the affected site.

Nodal Agency : P&E

Support Agency : P&E (District Council), NGOs

SOPS for nodal Agency

- IC will call the TL of Primary Agency and get the ESF activated.
- TL of primary agency will call nodal officers of supporting agencies.

- TL would activate the District Quick response Team.
- The QRTs will be deployed at the affected site.
- TL will dispatch emergency repairs teams equipped with tools, tents and food.

SOP for Quick Response Team (QRT) on Electricity

- QRTs members will reach the nodal office as soon as they get instructions to do so from the TL.
- QRT members would reach to the site immediately after receiving instruction from the nodal officer.
- On the site QRT members will take stock of the situation from the IC at the site and their counter parts.
- The QRTs will coordinate, collect, process, report and display essential elements of information and facilitate support for planning efforts in response operations.
- Begin repairing and reconstruction work.
- Assisting hospitals in establishing an emergency supply by assembling generators and other emergency equipments, if necessary.
- 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.
- The members of QRTs will establish temporary electricity supplies for relief material go-downs.
- Compile an itemized assessment of damage, from reports made by various electrical receiving centers and sub-centers.
- Report about all the activities to the head office.

ESF 11 : TRANSPORTATION

Background :

The ESF on Transport should ensure smooth transportation links at state and district level. Within the disaster context, quick and safe movement of material and humans are a 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

- The state civil transportation infrastructure will sustain damage, limiting access to the disaster area.
- Access will improve as routes are cleared and repaired.
- The movement of relief supplies will create congestion in the transportation services.

Nodal Agency : Department of Transport

Support Agencies : PWD (State & District Council)

SOPS for nodal Agency

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

SOP for Quick Response Team (QRT) on Transport

- The QRT members will reach to the nodal office as soon as they will get instructions to do so from the TL.
- As quick response teams will receive instructions from the nodal officer they would reach to the site immediately.
- QRTs would report the situation and the progress on action taken by the team to the respective EOCs.
- QRTs will send a requirement schedule for the different modes of transportation e.g. trucks, boats, helicopters to be put on stand-by.
- QRTs will ensure timely re-establishment of the critical transportation links.

- The members of QRTs will establish temporary electricity supplies for relief material go downs.
- Compile an itemized assessment of damage, from reports made by various electrical receiving centers and sub-centers.
- Reporting about all activities to the head of offices.

CHAPTER 8

RESPONSE PLAN/ACTION PLAN FOR EMERGENCY SUPPORT FUNCTIONS

Disaster management is a multi faceted discipline that needs different mechanisms with diverse methodology. The action plan contains two approaches; 1) short term plan and 2) long term response plans to tackle a disaster scenario.

8.1 SHORT TERM RESPONSE PLAN:

Short-term response plan contains the actions to be taken immediately after a disaster. Once information has been reached the DEOC 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 fast 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 and DMTs.
4. Declare Disaster based on the severity/vulnerability.

8.1.1 RESCUE OPERATIONS:

Immediately after a disaster the Deputy Commissioner shall act as the District Magistrate and 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 shall do the following measures:

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

8.1.2 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 DDMA shall enter in to pre-contract well in advance and procure materials required for life saving. The office of Deputy Commissioner is responsible for providing relief to the victims of natural and man-made disasters like fire, flood, drought, earthquake,

riots, terrorist attacks, accidents etc. The relief is provided as per the scale fixed by the government.

8.1.3 REHABILITATION:

In short term 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 direction of the DDMA.

8.2 LONG TERM RESPONSE PLAN

The long-term response plans are related with Recovery and Reconstruction activities on one side and institutionalizing disaster management in district administration on the other side. The former one is given in detail in the coming chapter. There are Standard Operation Procedures (SOPs) for the Emergency Support Functions. In long term measures the following action shall be undertaken duly.

1. Constitution of ESF, DMT, QRT, Field Response Teams (FRT).
2. Refresher trainings for all such teams in a regular interval of time and exercise of Mock Drills.
3. Continuous awareness/sensitization programmes for the stakeholders and the general Public.
4. Getting pre-contract with vendors and merchant establishments to procure relief materials in times of disaster.

Most of the Line Departments in the District, Autonomous Bodies and Organizations are part of the ESF. The action plans for ESFs for disaster management are discussed below. The DDMA shall ensure that these actions plans are updated bi annually and practiced through mock drills in the district.

8.2.1 ACTION PLAN FOR POLICE:

Response Activation

- The Nodal Officer from Mizoram Police will activate the Quick Response Teams.
- The QRT will be deployed at the SOC's.

- As per the information from IMTs, more officers may be sent at site.

Actions to be taken

- If felt, cordoning of area to restrict movement of onlookers, vehicular and pedestrian traffic should be done.
- Quick assessment of law and order situation in affected areas.
- Prepare updates on the law and order situation every 2–3 hours and brief the Incident Commander.
- Arrangements for controlling situations like rioting and looting.
- QRTs will guard property and valuables in affected areas.
- Control and monitor traffic movement.
- QRTs will also provide information about traffic flow along various corridors, especially heavy traffic or congested roads.
- 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.

Equipments to be brought

- Search lights
- Generator
- Crane-Heavy Duty Fork Type
- Recovery Van
- Stretchers
- First and Kits
- Vehicles: Mini Buses, Heavy Truck, Mobilization Trucks.
- Water tanker
- Any other.

8.2.2 ACTION PLAN FOR FIRE AND EMERGENCY SERVICE:

Response Activation

- As soon as the Nodal Officer gets information about the disaster, he should reach the EOC.
- The Quick Response Teams will be deployed at the SOC.
- As per information from IMT, more officers may be sent at side.

Actions to be taken

- At the site, QRTs should contact the local volunteers and local people to gather 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.
- Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble.
- Special care to women and children groups should be given as they are expected to be more affected and helpless incase of any emergency situation.
- Coordinate 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.

Equipments to be brought

- Fire Extinguisher
- Delivery hose
- Suction hose
- Fire axe
- Ladder Platforms
- Concrete Cutter
- Foam

8.2.3 ACTION PLAN FOR P&E:

Response Activation

- As soon as the Nodal Officer gets information about the disaster reach the EOC.
- The QRT will be deployed at the sites.
- As per information received from IMT, more officers may be sent at site.

Actions to be taken

- Will dispatch emergency repair teams equipped with tools, tents and food.
- Assist hospitals in establishing an emergency supply by assembling generators and others emergency equipments, if necessary.
- The members of QRTs will establish temporary electricity supplies for other key public and private water systems.
- The members of QRTs will make arrangements for temporary electricity supplies for transit camps, feeding centers, relief camps and SOC, DEOC and on access roads to the same.
- The members of QRTs will establish temporary electricity supplies for relief materials go downs.
- Compile an itemized assessment of damage, from reports made by various electrical receiving centers and sub-centers.
- Report about all the activities to the head office.

Equipments to be brought

All material required for restoration of supply available with the department in Field Offices/Stores.

8.2.4 ACTION PLAN FOR BSNL:

Goal

The BSNL is primarily responsible for restoration of communication 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

- Soon after receiving information about disaster (from any source). Nodal Officer will contact State/District EOC.
- The Nodal Officer from BSNL will activate the QRT.
- As per the information from Incident Management Team, more teams may be deployed at affected sits.

Action to be taken

- Communicate situation to support agencies (Airtel, IDEA, NIC etc.) and request for detailed information on the status of equipment and infrastructure damage in the affected area(s).
- Launch assessment mission to understand better the nature of damage to telecom services and network.
- Ensure possible arrangements for establishing reliable and appropriate network.
- Work out a plan of action for private telecom companies and convene a meeting to discuss and finalize the modalities.
- Compile and communicate Action Taken Report to District and State Authorities.
- New numbers and details of contact persons to be communicated to Emergency Operations Centre (District/State).
- Mobile exchanges should be deployed as alternative mode of communication for authorities and general public.
- Establish telephone facilities for the public and information on this should be announced through media.
- Monitor the situation and arrange for emergency staff required to operate systems established.
- Inform district/state authorities on debris clearness of the work required.
- Launch rehabilitation work and arrange for repairs and relocation, if required.
- Make available various types of equipment/ material/technical manpower and services, if requested.

Equipments to be brought

- Emergency Communication Van with GSM and CDMA services.
- Other necessary equipments to restore communication network/set-up alternative emergency communication.

8.2.5 ACTION PLAN FOR PWD:

Action to be taken

- 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 & rescue operations. Soon after search and rescue team leave the site, will mobilize equipments for debris clearance.
- Assume role in Equipment support, debris and road clearance, on receiving the intimation of the disaster from State EOC/Nodal Officer of MCD.
- Coordinate with the MCD officers to mobilize equipments from the warehouses.
- Contact respective personal to move the equipments to central warehouse.
- The equipments like JCB, concrete cutters identified as per the need will be transported to the site.
- On receiving intimation on the intensity of the damages of structure, the nodal officer will make an assessment on of the damages of roads and structures reported at the site and surrounding areas.
- The nodal officers will call for personal to immediately start debris clearance operation to enable movement to the affected site.
- 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 measure to plan de-routes for the transportation ESF's to be operational.
- All supporting agencies will inspect the road/rail network and structures within the disaster site and surrounding.
- Ensure proper corpse disposal and post mortem by coordinating with ESF on medical response.
- Assessment of damage (locations, no. of structures damaged, severity of damage).
- The QRTs will be deployed at the affected site.
- Enlisting the types of equipment as compiled from resource inventory required for conducting the debris clearance.
- The QRTs will report the situation and the progress in response activities to the respective EOCs.

- Undertake construction of temporary roads to serve as access to temporary transit and relief camps, and medical facilities for disaster victims.
- 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.
- Ensure a critical number of medical professionals to reach the site including specialists from outside the state.
- If temporary living arrangements are being made from the affected populace, the agencies must ensure high standards of sanitation in settlements in order to prevent the multiplicity of the disaster.
- Coordinate, direct, and integrate response to provide Equipments support, relief camps establishment, and sanitation health assistances.
- Mobilizes different modes of transportation e.g. Trucks, etc. to be put on stand-by.
- Assist timely re-establishment of the critical transportation links.
- Compile an itemized assessment of damage, from reports made by various receiving centers and sub-centers.

Equipments to be brought

- JCB, concrete breakers, cranes, grader, cutter, jack hammer, tipper, folkanes, dumper, aeromatic hammer for debris/road clearance, supporting rescue operations.
- Vehicles (trucks), earth movers, rescue equipments, mobile medical vans.
- Other disaster management related equipments.

8.2.6 ACTION PLAN FOR PHE:

Response Activation

- Upon receipt of notification about disaster, nodal officer will activate quick response teams.
- The quick response teams will be deployed at the sites.

Action to be taken

- Quick assessment of water line damage and contamination.
- Supply of water tankers to disaster affected communities.
- Deploy response teams to repair and restore water supply lines that may be damages after disaster.
- Quick assessment of water contamination levels and taking steps to restore clean drinking water.
- Provide information to IMT, DEOC and state EOC about extent of damage.

Equipments/Materials to be brought to site

- Water tankers.

8.2.7 ACTION PLAN FOR DEPARTMENT OF IRRIGATION (AGRICULTURE):

Response Activation

- Team leader of ESF will activate QRT.
- QRTs will be deployed at all three sites.

Action to be taken

- QRT to report situation and progress of action to the EOC.
- Coordinate will Team leader for water supply.
- Provide arrangements for transportation means across any river in case bridge network fails.

8.2.8 ACTION PLAN FOR DCSO, FOOD, CIVIL SUPPLIES & CONSUMER AFFAIRS:

Response Activation

- Team leader will activate ESF on receiving information of the disaster from State EOC.
- Team leader will inform Nodal Officers of support agencies about the event and ESF activation.

Action to be taken

- Coordinate with ESFs related to transportation, debris and road clearance to ensure quality supply chain management and relief materials.

- QRTs to report to site of relief camps.
- QRTs responsible for management and distribution of food and relief items to affected victims.
- QRTs responsible for reporting progress of action taken to EOC.
- Preparing take-home food packets for families.
- Ensuring support to local administration.

Equipments/Materials to be brought to site

- Food packets

8.2.9 ACTION PLAN FOR DEPARTMENT OF TRANSPORT:

Response Activation

- Team leader will activate ESF on receiving information of the disaster from State EOC.
- Team leader will inform Nodal Officers of support agencies about the event and ESF activation.

Action to be taken

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

8.2.10 ACTION PLAN FOR ARMY:

Response Activation

- Upon receipt of notification about disaster, nodal officer will activate quick response teams.
- The quick response teams will be deployed at the sites.

Action to be taken

- Support and coordinate with the Incident Command System for Law and Order, Search and Rescue, distribution of Relief material, Medical Response and Trauma Counseling functions.
- Locate the damaged and collapsed structures and rescue the population buried and trapped in rubble.
- Cordoning of area to restrict movement of onlookers, vehicular and pedestrian traffic should be done.

- Quick assessment of law and order situation in affected areas.

8.2.11 COMPOSITION OF SEARCH AND RESCUE TEAM:

The Typical Search and Rescue Team should consist of

- Rescue and evacuation team.
- Relief team, Medical Unit, Technical support team.
- Damage and need Assessment team.

Rescue Required

- Acoustic listening devices
- Search Cams
- Rescue gears
- Canines
- Hydraulic platform 60 mts. Telescopic cum Articulating
- Hydraulic platform 54 mts. Telescopic with Articulating tip boom
- Hydraulic platform 45 mts. Telescopic with Articulating tip boom & rotating cage
- Hydraulic Telescope crane (45mts. 100 ton capacity)
- Hydraulic/pneumatic rescue tools (Heavy duty industrial type) Concrete saws, portables, gasoline operated with diamond chains
- 12" & 14" with water pump & hose/connectors
- Concrete breakers (28 kgs)
- Concrete breaker (10 kgs)
- Pneumatic High-pressure lifting bags 12 to 132 tons
- Life detector compact system
- Helmets with head mounted strap lights/battery & wireless/walkie-talkie adapters
- Mechanical jack supports
- Excavator, Bucket Cap 0.3 cu.m.wt. @ 7/8 ton, HP @ 50/60 HP
- Bucket cap 1.0 cu.mt.wt. @ 20/25 ton HP @ 120/135
- Wheel Dozer G14 D type. Bulldozer D80 A12, Tipper truck, tractors
- Lifting crane cap. 25 ton
- Mobile medical van, Tata Sumo

- Do watering pump heavy duty mounted on a LCV
- Towing crane, Trailer 25 ton to transfer the machinery
- Mobile Breakdown Unit

Other Resources

- Emergency lights, torches
- Public Address Systems (battery operated)
- Stretchers, Covered dustbins
- Earth digging equipments
- Polythene sheets, Fire-fighting equipment
- Bleaching Powder, First Aid kits
- Protective shoes/gloves, Casualty bags.

CHAPTER 9

VILLAGE DISASTER MANAGEMENT COMMITTEE

It is said that village should be given top priority in giving Information, Communication and Education about the possibility of different disaster and its mitigation strategies. Each and every village is obligated to set up a committee known as Village Disaster Management Committee under the Chairmanship of VCP/a reliable local resident. It will comprise members from different walks of life – viz.

- 1) NGO's representative
- 2) Political Party's representative
- 3) Prominent Citizens
- 4) VC Members
- 5) Teachers

9.1 VILLAGE DISASTER MANAGEMENT TEAM:

The committee is responsible for giving awareness to public, making Disaster Management Plan, mitigation plan, undertaking rescue works after disasters and pre-disaster activities. Under its supervision, following village level Task Forces/Disaster Management Teams will be formed.

- 1) First Aid and Medical.

- 2) Search and Rescue.
- 3) Shelter Management.
- 4) Food and Water Management.
- 5) Relief Co-ordination.
- 6) Information and Damage Assessment.
- 7) Trauma counseling.

9.1.1 FIRST AID AND MEDICAL :

This team will attend to all the casualties in the event of any disaster. They will be provide with First Aid kits and they will be trained by Health Department.

9.1.2 SEARCH AND RESCUE :

This team will also perform evacuation besides search and rescue operation. They will undergo training on drowning, fire fighting and search and rescue of collapse building victims.

9.1.3 SHELTER MANAGEMENT :

This team will identify building for accommodation of shelter less people due to disaster.

9.1.4 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.

9.1.5 RELIEF CO-ORDINATION :

This team will operate collection and distribution of all other collection and distribution of all other relief material except food and water supply.

9.1.6 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.

9.1.7 TRAUMA COUNSELING :

This team will extend their helping hands by counseling the affected families, casualties etc. to reduce their burdensome out of disaster.

9.2 S.O.P DISASTER MANAGEMENT TEAM

DMT 1: WARNING AND COMMUNICATION GROUP

Pre-Disaster

1. Ensure that communication equipments are in working order.
2. Ensure an emergency contact directory with all relevant numbers.
3. Carry a hazard map demarcating the most vulnerable/safe area and households.

On receipt of warning

1. Assembly in a central location and listen to radio together to determine the situation.
2. Pay attention to local warnings and their interpretation.
3. Crosscheck the warning received on radio, with the nearest control room.
4. Disseminate the warning using megaphones/mikes sirens etc., door-to-door.

During Disaster

Remain in the safe shelters and provide the evacuees with regular updates.

After Disaster

1. Get the de-warning from District Control Room and announce the same.
2. Disseminate precautionary information on post disaster health hazards and remedies.
3. Give immediate assessment to the authority on damage, massive casualty etc.
4. Guide the search and rescue team with geographic information and high damage.

DMT 2: EVACUATION AND TEMPORARY SHELTER MANAGEMENT GROUP

Pre-Disaster

1. Monitor the infrastructure needs of the Community such as roads, school etc.
2. Co-ordinate with the local authority to identify/location for setting relief camps.
3. Check for plaster cracks and damp patches in safe shelters that require repairs.
4. Stock dry food and other safe food stocks, fuels, etc.
5. Ensure that the shelters are easily approachable.
6. Ensure that the shelters are cleaned regularly.

On Receipt of Warning

1. Evacuate people from their homes and clear the area as soon as possible. Move stocks of dry food, fuel and medicines to the shelter.
2. Organise space to house evacuee families.
3. Help the old, disabled, pregnant women, children etc. to settle in the shelter.
4. Ensure that strict sanitary practices are adhered to in the shelter.
5. Register the evacuees and give them identification slips/cards.

During Disaster

1. If caught inside withstand with their backs against a strong indoor wall.
2. If outside during disaster, run to an open space away from trees, buildings etc.
3. If in a moving vehicle, stop and stay inside.

Pre-Disaster

1. To ensure that evacuees are fed and housed until the de-warning is received.
2. Organise tents and materials for construction of temporary shelters.
3. Collect stocks of food, clothing and fuel etc.
4. Clean and disinfect the shelter all throughout the stay and before leaving.
5. Help NGOs and their engineers in conducting meeting and rehabilitation activity.
6. Monitor the rehabilitation and reconstruction process of the community.

DMT 3: DAMAGE ASSESSMENT GROUP

Pre-Disaster

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

During Disaster

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

After a Disaster

1. Give immediate assessment to the authorities on damage, missing, casualty etc.
2. Give detailed report of assessment to the authority.
3. Guide the search and rescue team with geographic information.

DMT 4: SEARCH AND RESCUE GROUP

Pre-Disaster

1. Familiarize themselves with existing response mechanism of the government.
2. Arrange for the necessary S&R equipment from Govt. and Pvt. Agencies.
3. Use the equipment properly and maintain it well.
4. Have a detailed map of the Community indicating vulnerable areas/safe areas.
5. Organise themselves into pairs (buddy system)
6. Prepare back up teams ready for rotation of personnel.

On Receipt of Warning

1. Organise a meeting of the S&R members.
2. Contact the administration for detailed information.
3. Identify the vulnerable areas in which their help is required and decide the action plan.
4. Gather the equipments required.
5. Assist the evacuation team in moving people to the safe shelter.

6. Co-ordinate with the First Aid team to provide primary health care.
7. Shift the seriously injured persons to hospital/PHC.

Post Disaster

1. Conduct a general hazard assessment to determine the possible hazards.
2. Make a quick head count and maintain a list of missing persons.
3. Clear debris and fallen trees in order to reach trapped victim.
4. Communicate with the sub-division and District levels on additional assistance.
5. Coordinate closely with the first aid team for primary health care to rescued victims.
6. Coordinate with the evacuation team to shift rescued persons to open space/tents.

DMT 5: FIRST AID AND TRAUMA COUNSELING GROUP

Pre-Disaster

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

On receipt of Warning

1. Ensure that contents of all First Aid kits are satisfactory.
2. Move into the safe shelter.
3. If caught inside, stand with their backs against a strong in door wall (in EQ).
4. If outside during the earthquake, run to an open space (in EQ).
5. If in a moving vehicle, will stop and stay inside (in EQ).

Post Disaster

1. Attend to the injured people.
2. Counsel the traumatized people.
3. Listen to and calm the victims affectionately and patiently.
4. Help doctors and paramedics shift the ill and the injured to hospitals.
5. Isolate the cases with infectious diseases and prevent them from spreading.

6. Provide preventive medication if there is danger of cholera, dysentery.

DMT 6: RELIEF CO-ORDINATION GROUP

Pre-Disaster

1. Familiarize with damage and needs assessment formats.
2. Assess the estimated need of relief materials.
3. Mobilize stocks of food grains and medicines from government, NGOs, etc.
4. Stocks materials like ropes, bamboos, tarpaulin etc. in the safe shelter identified.
5. Keep a record of the stock available and maintain and dispatch them as required.
6. Always be impartial and sincere to the duty the victims.
7. Be transparent in the accounting and stocks by giving timely correct information.

On receipt of Warning

1. Coordinate with the evacuation and temporary shelter management team to move stocks of food, water and so on to the safe shelter.
2. Move to the safe shelter.
3. If caught inside, will stand with their backs against a strong indoor wall (in EQ).
4. If outside, run to an open space away from trees, buildings and electric lines (in EQ).
5. In a moving vehicle, will stop and stay inside (in EQ).

Post Disaster

1. Conduct a complete damage and need assessment.
2. Based on a preliminary need assessment as follows, communicate preferences to the District Control Room. 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.
3. Communicate the assessment findings to other Task Force groups and local authorities.
4. Establish a distribution centre or community kitchen begin distribution.

5. Ensure that food and other materials are distributed in an equitable manner.
6. Priorities the elderly persons, pregnant women, children etc.
7. Make a physical inventory of stocks when external assistance arrive.
8. Work closely with the communication group to stay in touch with control room.
9. Organise a meeting to evaluate the experience, internalize learning.
10. Keep the undistributed relief material in a safe place/godown and preserve it.

DMT 7: WATER AND SANITATION GROUP

Pre-Disaster

1. Ensure sufficient supplies of chlorine tablets etc. for disinfecting drinking water.
2. Ensure sufficient stocks of lime powder for disinfecting large water bodies.
3. Ensure that sufficient water is stored in proper tanks and jerry cans in safe shelters.
4. Ensure that there is list of contact persons at Dist. Com and PHE for assistance.
5. Raise prior awareness amongst the community about how to treat water resources.
6. Set a minimum standard in advance for distribution of water in emergency.
7. Stock long steel rods, kerosene and fuel wood to dispose corpus and carcasses.
8. Help of the local administration to construct temporary sanitary facilities.
9. Identify the tractors and lab ours required for sanitation purposes.
10. Contact PHE for assistance in acquiring diesel engines and generators.

On receipt of Warning

1. Assess the drinking water supply and available water resources.
2. Organise for alternate power supply by procuring generators/diesel engines.

3. Ensure that the sanitation facilities at the safe shelter are in working order.
4. Move into the safe shelter for one's own safety.

Post Disaster

1. Make immediate repairs of broken or burst pipes.
2. Coordinate with PHE/LAD for procurement of water tankers if required.
3. Disinfect large water bodies with lime power.
4. Coordinate with the Sanitary Inspectors for taking drinking water samples.
5. Ensure that water is distributed in an equitable manner.
6. Ensure that sufficient water is available in bathing units and toilets at relief camps.
7. Demarcate areas for safe excreta disposal around the relief camp.
8. Guide the local authorities to construct latrines away from ground water resources.
9. Coordinate with the local authority to construct sufficient bathing cubicles for females.
10. Spray bleaching powder and other disinfectants to prevent infectious disease.
11. Ensure that solid waste is put in refuse containers or buried in a refuse pit.
12. Ensure that there are no medical waste such as needles, drugs etc. lying around.
13. Co-ordinate with the first aid team to inoculate against water borne diseases.
14. Construct temporary soak pits for onsite disposal of wastewater.
15. Co-ordinate with the search and rescue team for disposal of carcasses.
16. Ensure that dead bodies are registered and cremated after legal/religious formalities.

CHAPTER 10

ACTION PLAN FOR SAIHA CIVIL HOSPITAL

10.1 Introduction:

The disaster plan is a must for every hospital as a disaster can occur anywhere, anytime. The drill of the plan is to be practiced periodically. No master plan can be evolved to fit every emergency. But, if executed in a coordinated and disciplined fashion, a general plan of emergency activity will act as guideline and could prove extremely helpful in times of stress.

10.1.1 Resources of District Hospital, Saiha:

1. Total Bed strength	-	61	
2. Manpower (Doctor)-	11	AYUSH	- 1
General	-	5	
Specialist	-	4	(Surgeon, ENT, Anesthetist & Pediatrician)

10.1.2 Organization and Operations

- 1. Disaster Management Committee:** Consist of the following:-
 - 1) Medical Superintendent as Chief Coordinator.
 - 2) Medical Officer-in-Charge Casualty Department.
 - 3) All Doctors of Civil Hospital
 - 4) Nursing Superintendent
 - 5) Assistant Nursing Superintendent
 - 6) Senior most Pharmacists
 - 7) Dy. DEMO
- 2. Control Centre:** Medical Superintendent Office will function as Control Centres: (Ph no.: 101/ 03835 224056)
- 3. Alert actuation:** Medical superintendent or the duty officer, on receipt

of information regarding a disaster should alert all those who are involved in the operations of the plan who are to reach their respective area of duty immediately.

Vehicle and Human traffic control

The Hospital guard and Police will clear all the vehicle at the Hospital campus. Volunteers may be sought from local areas and will be provided with proper identification badge.

Public information centre

It will be utilized for information centre. Information board and P.A system will be located here.

4. **Reception center:** The center will receive all casualties of the disaster. Traffic-both vehicular and human should be directed by and controlled preferably by the police.

The present casualty department and male ward will function as the first reception for patients. With the heavy patient load (more than 15 casualties), the SMO Room, EYE Ward and old CMO Office will be converted into reception centre.

5. **First Aid Center/ Triaging area:** After first aid, the casualties should be sent to various wards and departments as per the priority allocation. A functional triage as follows may be utilized.

Triaging will be conducted by the Emergency Medical Officers/team at the Reception Center:

- i) RED : required immediate resuscitation
- ii) YELLOW : required attention and action/possibly surgery.
- iii) GREEN : required only first aid /observation/ treat and discharge.
- iv) BLACK : dead or brought dead.

6. **Temporary Morgue:** Brought in dead and those who die while on medical management at a health care facility should be segregated in the present

morgue. Details of such bodies with correct identification marks, sex, physical characteristics, approximate age and photographs should be kept available. Bodies should be handed over to the next of kin only after completion of medico-legal formalities and receipt of clearance from the police.

Temporary morgue for keeping dead bodies will be in the OPD Block.

7. Accommodation Plan:

- a) Vacation of General Wards: All concerned Head of Dept. will make an attempt to vacate maximum numbers of beds in their respective wards e.g. by discharging convalescing patients, elective surgical cases, patient requiring only domiciliary care etc. and bed vacancy should be reported to the Reception Centre.
- b) Additional bed space may be earmarked for makeshift wards:
 - i) De-addiction Centre
 - ii) Female Ward and Post Partum Wards.
 - iii) Corridor, Varandah and Court Yard of Hospital.

8. Stores and Equipment: This will be looking after by the Nursing Superintendent and Assistant Nursing Superintendent. Stores inclusive of linen stores, medical surgical stores will be kept separately in the casualty department and also in the respective departments. As an immediate measure the buffer stock earmarked in the casualty would be utilized. A couple of emergency trays containing life saving drugs will be kept ready in casualty and medical stores, Dressing material and intravenous fluids will also be kept as a buffer both in the casualty and the respective departments.

a) *Linen Store*: A room in the Matron Office is earmarked for this purpose. The following items are to be made available in the room -

- i) Mattresses : 20 nos
- ii) Bedsheets : 60 nos
- iii) Blankets : 40 nos
- iv) Pillows and covers : 30 nos

v) I/ V stand : 20 nos

vi) Oxygen cylinders : 10 sets

b) *Drugs and Equipments:* The Nursing Superintendent and Pharmacist/Store Keeper will be called at once to open the store. As an immediate measure, buffer stock (maintained in the Emergency Department) will be utilized. In case medicines are not available or inadequate, arrangement for immediate local purchase should be made.

9. *Emergency Blood Bank:* Blood of all groups would be stocked to meet emergency requirements. Volunteers and voluntary organizations would be known and their details documented. They would be approached for blood requirements as and when required. This responsibility will be taken by the Blood Bank Officer.

10. *Staff:*

Medical staff: In addition to members of clinical staff, para and pre-clinical disciplines should render assistance in managing the casualties. Mass casualty flow chart is made available at the casualty.

Nursing staff: A list of nursing staff that may be made available at short notice to render nursing assistance will be available in the Duty Medical Officers' Room. Nursing Superintendent should regularly update this list.

Other staff: Duty roster including those on standby duty of other hospital services like radiology, laboratory, housekeeping/ sanitation services would be available with the Duty Officer.

Volunteers: The role that volunteers will assume during disaster management would be predetermined, rehearsed, coordinated and supervised by regular senior staff of the health care facility.

a) *For moderate load:* The existing Emergency Dept. Medical Team and /with selected speciality requested by Emergency Dept. in the hospital are to be mobilized.

b) *For heavy load :* The following manpower resources will be mobilised -

i) all the above manpower as in (a).

ii) additional manpower :

Main Centre and Sub Centre Staff

* Support Staff: NGOs, Police and Home Guard.

11. Documentation Center: A comprehensive documentation is essential in management of disasters. It will be beneficial for the staff, police, next of kin, relatives and the Press.

a) For moderate load-documentation shall be done at the Emergency Deptt.

b) For heavy load-documentation shall be done at OPD.

* MRT/Statistician will be responsible for the documentation.

* Volunteers may be engaged for this purpose.

12. Hospital Security: Security of admitted patients, their belongings, hospital staff and equipment is essential. The assistance of the Police department will seek for maintenance of law & order, traffic control and medico legal problems.

13. Dietary Services: The dietary services should be capable of handling additional loads during disaster situation. Acquisition of raw materials and supply of appropriate meals for staff and patients will be planned.

Supply of nourishment to this patients and Emergency Duty staff will be arranged by the Medical Superintendent and Nursing Superintendent. The help of volunteers/voluntary organizations may be sought for this purpose.

14. Transport & Ambulance Services: Existing Ambulances including morgue van and clinic van will function in transporting patients. Assistance may be sought from transport department/ any other departments.

All the ambulances should be made available at the Emergency Department along with drivers as soon as the state of disaster is declared. Facilities for transportation of victims from site of disaster/accident to the

hospital to be provided by the ambulances. These ambulances should be provided with basic life maintenance support drugs and equipments viz

- a) Oxygen and Oxygen Mask
- b) Stretcher, Blankets, Pillow etc.
- c) First-Aid Kit
- d) Suction equipment
- e) Material for fracture immobilization, cervical collar etc.
- f) Essential drug for emergency use
- g) Intubation Kit/ Ambu-bag etc.

The assistance of the Transport Department will be sought to provide additional requirement of transportation in case the number of casualties is high. The Hospital authority should make liaison with the Nodal Officer/Duty Officer in the Transport Department.

- 15. *Information Services:*** All information to Press, Radio and other media will be issued by the Medical Superintendent. The M.S will also inform D.C Kolasib. P.A System may be utilized for giving out information as and when required.
- 16. *Engineering and Maintenance Services:*** These services will be made to ensure uninterrupted supply of water and electricity during the management of disasters. Standby generators will be inspected and maintained in operationally serviceable condition.
- 17. *Police and Security Services:*** The assistance of the Police to maintain law and order is vital. They will assist in controlling the crowd and vehicle traffic. They will assist in quick disposal of the Medico-legal cases.
- 18. *Discharge Procedure:*** After appropriate treatment of the victims who are then to be discharged, proper record of their addresses, nature of injury, treatment and follow up etc. is to be noted by the hospital authority and informed the police accordingly.

10.2 SPECIFIC DUTIES & RESPONSIBILITIES:

10.2.1 EMERGENCY MEDICAL OFFICERS (EMO)

- 1) will immediately inform the Medical Superintendent along with all possible details of disaster.
- 2) will prepare Emergency Department to received casualty.
- 3) will alert and activate the Emergency Department Staff accordingly.
- 4) will co-operate with SMO/Senior Surgeon for organizing the Emergency Operation System.

10.2.2 MEDICAL SUPERINTENDENT

- 1) will immediately call and activate The Hospital Disaster Management a committee
- 2) will evaluate the overall situation quickly, and decide whether the disaster is minor, moderate or heavy load, then act accordingly.
- 3) will assign respective officers for their definite role.
- 4) arrange Emergency Operation Center (EOC)
- 5) inform hospital guard and Police for human and vehicle traffic control.
- 6) organized information centre at strategic location- site/notice board/ P.A system etc.
- 7) liaise with VIPs, Press etc., responsible for officials Press Release.
- 8) direct Police, volunteers etc.

10.2.3 SENIOR MEDICAL OFFICER (ADMINISTRATION): *(will act as MS in his absence)*

- 1) mobilise ambulance services in co-ordination with Senior Surgeon and Nursing Superintendent.
- 2) inform Head Assistant, selected office staff and IV Grade staff.
- 3) inform and activate maintenance services like -Pharmacy, Generator, Operator, Drivers, Electrician, Water in-charge etc.
- 4) arrange identification badges- (Staff, Volunteers etc)
- 5) assist Medical Superintendent in all possible ways.

10.2.4 SENIOR MEDICAL OFFICER (EMERGENCY DEPARTMENT): *(will act as Senior Medical Officer (Admin) in his absence)*

- 1) Inform Medical Superintendent, activate Disaster Management Committee inform responsible Head of Departments.
- 2) arrange TRIAGE.
- 3) arrange Reception Centre, First Aid facilities.
- 4) vacate casualty beds - depending on the requirements.
- 5) arrange additional place for reception and treatment.

10.2.5 NURSING SUPERINTENDENT (*will be assisted by Asst. Nursing Supdt. /or take charge in her absence*).

- 1) inform Asst. Nursing Superintendent
- 2) inform O.T. Staff, mobilize IV Grade staff.
- 3) arrange essential medicine & consumables.
- 4) arrange extra beds, linen etc.
- 5) assist Sr. Surgeon & i/c Administration to mobilize ambulances.
- 6) arrange additional Nursing Staff.
- 7) arrange refreshment (Staff, VIPs etc.)
- 8) assign one Staff Nurse to take custody of personal belongings

10.3. MAN POWER:

10.3.1 MAN POWER – DOCTORS

Sl. No.	Staff	51-100 bedded Sub District Hospital	Available at DH, Saiha
1.	Hospital Superintendent	1	1
2.	Medical Specialist	2	Nil
3.	Surgery Specialists	2	1
4.	O&G specialist	2	Nil
5.	Dermatologist / Venereologist	1	Nil
6.	Pediatrician	2	1
7.	Anesthetist (Regular / trained)	2	1
8.	ENT Surgeon	1	1
9.	Ophthalmologist	1	Nil
10.	Orthopedician	1	Nil
11.	Radiologist	2	Nil

12.	Casualty Doctors / General Duty Doctors	9 (at least 4 female doctors from allopathy)	5
13.	Dental Surgeon	1	2
14.	Public Health Manager ¹	1	Nil
15.	Forensic Expert	1	Nil
16.	AYUSH Physician ²	2	1
17.	Pathologist with DCP / MD (Micro) / MD (Patho) / MD (Biochemistry)	1	Nil
18.	Psychiatrist		Nil
	Total	32	13

10.3.2 MAN POWER – PARA MEDICAL

Sl. No.	Staff	51-100 bedded Sub District Hospital	Available at DH, Saiha	
			Regular	Contract
1.	Nursing Superintendent	1	0	0
2.	Asst. Nursing Superintendent		1	0
3.	Sister		2	0
4.	Staff Nurse	50 (including 5 ward in charge)	15	10
5.	Attendant	1	1	
6.	Ophthalmic Assistant / Refractionist	1	1	2
7.	ECG Technician	1	0	0
8.	Audiometry Technician	1	0	0
9.	Laboratory Technician (Lab + Blood storage)	5	1	2
10.	Laboratory Attendant (Hospital Worker)	3	1	0
11.	Radiographer	3	1	0
12.	Pharmacist	5	1	1
13.	Matron (including assistant matron)	2	1	
14.	Physiotherapist	1	0	0
15.	Statistical Assistant	1	1	0

Sl. No.	Staff	51-100 bedded Sub District Hospital	Available at DH, Saiha	
			Regular	Contract
16.	Medical Records Officer / Technician	1	0	1
17.	Electrician	1	1	0
18.	Plumber	1	0	0
	Total	77		

[DH: Labour Room]

10.3.4 IPHS MANPOWER MAPPING FOR PHC (10 BEDDED)

UNDER SAIHA DISTRICT

Sl. No.	Manpower	Phura (24x7) PHC	Tuipang (24x7) PHC	Chhualung PHC	Chakhang PHC	Total Manpower at 4 PHCs	Required for 4 PHCs
1.	Medical Officer	1	2 (1Dental, NRHM)	0	-	3	10
2.	AYUSH practitioner	0	0	0	0	0	4
3.	Clerk	0	0	0	0	0	4
4.	Pharmacist	0	1	0	-	1	7
5.	Nurse-Midwife (Staff Nurse)	3(R)	3(2R+1C)	2(RCH)	0	8	4
6.	Health Worker (F)	0	-	0	-	0	4
7.	Health Educator	0	-	0	-	0	4
8.	Health Supervisor (Male & Female)	0	2(M&F)	0	0	3	6
9.	Acc.Clerks	1(NRHM)	0	0	1(NRHM)	2	2
10.	Laboratory	2(C)	1 (C)	1 (C)	0	4	4

	Technician						
11.	X-Ray Technician/Radiographer	0	-	0	-	0	
12.	Driver	0	0	0	-	0	2
13.	Class IV	4	7	1	1	13	
14.	Total	11	16	4	2	33	51

APPENDIX – I

GOVERNMENT OF MIZORAM RELIEF & REHABILITATION DEPARTMENT

NOTIFICATION

Dated Aizawl, the 23rd May, 2006

No. B. 13011/17/2006 – REH: In pursuance of the provisions under Section 25 of the Disaster Management Act, 2005, the Governor of Mizoram is pleased to constitute the “**District Disaster Management Authority**” for every District in Mizoram with the following composition, with immediate effect and until further orders:

1. Chairperson : Deputy Commissioner (Ex-Officio)
2. Co-Chairperson : Project Director, DRDA (**CEM MADC/LAD/ LADC for sixth Scheduled areas**)
3. Members :
 - 1) Superintendent of Police
 - 2) Chief Medical Officer
 - 3) Executive Engineer, PWD (Govt. nominated)

4) Executive Engineer, PHE (Gove. Nominated)

4. Chief Executive : Additional Deputy Commissioner Officer

2. Power & Functions:

Subject to the provisions under the Disaster Management Act, 2005 and in accordance with the guidelines laid down by the National Authority and the State Authority, the District Authority shall act as the planning, coordinating and implementing body for disaster management in the District and shall also be responsible for the following :-

- (i) Prepare a District Management Plan, including District Response Plan for the District.
- (ii) Coordinate and monitor the implementation of National Policy, State Policy, National Plan, State plan and District Plan.
- (iii) Ensure that the areas in the District vulnerable to disaster are identified and measures for the preventions of disasters and mitigation of its effects are undertaken by all the District Level Government Departments and the local authorities.
- (iv) Ensure that the guide line for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all the District level State Government Departments and the local authorities.
- (v) Give directions to different District level authorities and local authorities to take such other measures for the prevention or mitigation of disaster as may be necessary.
- (vi) Monitor the implementation of Disaster Management plan prepared by the District Level Govt. Departments and local authorities.
- (vii) Lay down guidelines to be followed by the District Level State Government departments for the purpose of integration of measures for prevention of disaster and mitigation in their development plans and projects and provide necessary technical assistance therefore, and monitoring the implementation of such measures.
- (viii) Review the capabilities for responding to any disaster or threatening disaster situation in the District and give directions to the relevant Departments or authorities at the District level for their upgradation as may be necessary.
- (ix) Review the preparedness measures and give directions to the District level or other concerned authorities, where necessary, for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation.

- (x) Organise and coordinate specialized training programme for different levels of officers, employees and voluntary rescue workers in the District.
- (xi) Facilitate Community training and awareness programmes for prevention of disaster or mitigation with the support of local authorities, Governmental and non-governmental organizations.
- (xii) Set up, maintain, review and upgrade the mechanism for early warning and dissemination of proper information to the public.
- (xiii) Prepare, review and upgrade the District level Response Plan and Guidelines.
- (xiv) Coordinate response to any threatening disaster situation of disaster.
- (xv) Ensure that the District Level Government Departments and local authorities prepare their response plans in accordance with the District Response Plan.
- (xvi) Lay down guideline, or give directions to the concerned District Level State Government Departments or any other authorities within the local limits of the District, to take measures to respond effectively to any threatening disaster or disaster.
- (xvii) Advise, assist and coordinate the activities of the District Level State Government Departments, statutory bodies and other governmental or non-governmental organizations engaged in disaster management in the District.
- (xviii) Coordinate with, and give guidance to, local authorities in the District to ensure that measures for the prevention or mitigation or threatening disaster situation or disaster in the District are carried out promptly and effectively.
- (xix) Provide necessary technical assistance or give advice to the local authorities in the District for carrying out their functions effectively.
- (xx) Review the developmental plans prepared by the District level State Government Departments, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation.
- (xxi) Examine the construction in any area in the District and, if it is of the opinion that the standards for the prevention of disaster or mitigation laid down for such construction is not being, or has not been followed, may direct the concerned authority to take such actions as may be necessary to secure compliance of such standards.
- (xxii) Identify buildings and places which could, in the event of any threatening disaster or disaster, be used as relief centres and make arrangements for water supply and sanitation in such buildings and places.
- (xxiii) Establish stock piles of relief and rescue materials or ensure preparedness to make such materials available at a short notice.

- (xxiv) Provide information to the State Authority relating to different aspects of disaster management.
- (xxv) Encourage the involvement of NGOs and voluntary social welfare institutions working at the grass root level in the District for disaster management.
- (xxvi) Ensure that communication systems are in order, and disaster management drills are carried out periodically.
- (xxvii) Perform such other functions as the State Government or State Authority may assign to it or as deems necessary for disaster management in the District.

3. Powers of the Chairperson

- (1) The Chairperson of the District Authority shall, in the additions to presiding over the meetings of the District Authority, exercise and discharge such powers and functions of the District Authorities as the District Authority may delegate to him.
 - (2) Subject to the expost facto ratifications by the District Authority, the Chairpersons of the District Authority, in the case of an emergency, have the power to exercise all or any of the powers of the District Authority.
4. The District Authority or the Chairperson of the District Authority may, be general or special order in writing, delegate such of its or his powers and functions to the Chief Executive Officer, subject to such conditions and limitations, if any, as it or he deems fit.
5. The District Authority shall meet as and when necessary and at such time and place as the Chairperson may think fit.

Sd/- ROCHILA SAIAWI
Commissioner/Secretary to the Govt. of Mizoram
Relief & Rehabilitation Department

Memo No. B. 13011/17/2006 – REH : Dated Aizawl, the 6th June, 2006

Copy to:

- 1) *Secretary to the Governor of Mizoram.*
- 2) *PS to Speaker/Dy. Speaker.*
- 3) *PS to Chief Minister.*
- 4) *PS to all Minister/Minister of State.*
- 5) *All Administrative Departments.*
- 6) *All Head of Department.*
- 7) *All Deputy Commissioners.*

- 8) *Chief Executive Member, Mara Autonomous District Council, Saiha/Lai Autonomous District Council, Lawngtlai/Chakma Autonomous District Council, Chawngte.*
- 9) *Controller, Printing & Stationery with 7 (seven) spare copies for publication in the Mizoram Gazette.*

Sd/- (JOHNY T.O)

Joint Secretary to the Govt. of Mizoram
Relief & Rehabilitation Department

APPENDIX - II

THE DISASTER MANAGEMENT ACT, 2005

No. 53 of 2005

[23rd December, 2005]

An Act to provide for the effective management of disasters and for matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Fifty-sixth Year of the Republic of India as follows:-

CHAPTER – I

PRELIMINARY

1.
 - (1) This Act may be called the Disaster Management Act, 2005.
 - (2) It extends to the whole of India.
 - (3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette appoint; and different States, and any reference to commencement in any provision of this Act in relation to any State shall be construed as a reference to the commencement of that provision in that estate.
2. In this Act, unless the context otherwise requires –
 - (a) “affected area” means an area or part of the country affected by a disaster;
 - (b) “capacity-building” includes
 - (i) identification of existing resources and resources to be acquired or created;
 - (ii) acquiring or creating resources identified under sub-clause (i);
 - (iii) organization and training of personnel and coordination of such training for effective management of disasters;
 - (a) “Central Government” means the Ministry or Department of the Government of India having administrative control of disaster management;
 - (b) “disaster” means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man made cause, 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 it of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area;
 - (c) “disaster management” means a continuous and integrated process of planning, organizing, coordinating and implementing measures which are necessary or expedient for
 - (i) Prevention of danger or threat of any disaster;\
 - (ii) Mitigation or reduction of risk of any disaster or its severity or consequences;

- (iii) Capacity-building.
 - (iv) Preparedness to deal with any disaster;
 - (v) Prompt response to any threatening disaster situation or disaster;
 - (vi) Assessing the severity or magnitude of effects of any disaster;
 - (vii) Evacuation, rescue and relief;
 - (viii) Rehabilitation and reconstruction.
- (d) “District Authority” means the District Disaster Management Authority constituted under sub-section (1) of section 25;
- (e) “District Plan” means the plan for disaster management for the district prepared under section 31;
- (f) “local authority” includes Panchayati Raj institutions, municipalities, a district board, cantonment board, town planning authority or Zila Parishad or any other body or authority, by whatever named called, for the time being invested by law, for rendering essential services or, with the control and management of civic services, within a specified local area;
- (g) “mitigation” means measures aimed at reducing the risk, impact or effects of a disaster or threatening disaster situation;
- (h) “National Authority” means the National Disaster Management Authority established under sub-section (1) of section 3;
- (i) “National Executive Committee” means the Executive Committee of the National Authority constituted under sub-section (1), of section 8;
- (j) “National Plan” means the plan for disaster management for the whole of the country prepared under section 11;
- (k) “preparedness” means the state of readiness to deal with a threatening disaster situation or disaster and the effects thereof;
- (l) “prescribed” means prescribed by rules made under this Act;
- (m) “reconstruction” means construction or restoration of any property after a disaster;
- (n) “resources” includes manpower, services, materials and provisions;

- (o) “State Authority” means the State Disaster Management Authority established under sub-section (1) of section 14 and includes the Disaster Management Authority for the Union Territory constituted under that section;
- (p) “State Plan” means the plan for disaster management for the whole of the State prepared under section 23.

CHAPTER II

THE NATIONAL DISASTER MANAGEMENT AUTHORITY

- 3. (1) With effect from such date as the Central Government may, by notification in the Official Gazette appoint in this behalf, there shall be established for the purposes of this Act, an authority to be known as the National Disaster Management Authority.
- (2) The National Authority shall consist of the Chairperson and such number of other members, not exceeding nine, as may be prescribed by the Central Government and, unless the rules otherwise provide, the National Authority shall consist of the following :
 - (a) the Prime Minister of India, who shall be the Chairperson of the National Authority, ex officio;
 - (b) other members, not exceeding nine, to be nominated by the Chairperson of the National Authority.
- (3) The Chairperson of the National Authority may designate one of the members nominated under clause (b) of sub-section (2) to be the Vice-Chairperson of the National Authority.
- (4) The term of office and conditions of service of members of the National Authority shall be such as may be prescribed.
 - (1) The National Authority shall meet as and when necessary and at such time and place as the Chairperson of the National Authority may think fit.
 - (2) The Chairperson of the National Authority shall preside over the meetings of the National Authority.
 - (3) If for any reason the Chairperson of the National Authority is unable to attend any meeting of the National Authority, the Vice-Chairperson of the National Authority shall preside over the meeting.
- (5) The Central Government shall provide the National Authority with such officers, consultants and employees, as it considers necessary for carrying out the functions of the National Authority.

- (6) (1) Subject to the provisions of this Act, the National Authority shall have the responsibility for laying down the policies, plans and guidelines for disaster management for ensuing timely and effective response to disaster.
- (2) Without prejudice to generality of the provisions contained in sub-section.
- (1) the National Authority may –
- (a) lay down policies on disaster management;
 - (b) approve the National Plan;
 - (c) approve plans prepared by the Ministries or Departments of the Government of India in accordance with the National Plans;
 - (d) lay down guidelines to be followed by the State Authorities in drawing up the State Plan;
 - (e) lay down guidelines to be followed by the Ministries or Departments of the Government of India for the purpose of integrating the measures for prevention of disaster or the mitigation of its effects in their development plans and projects;
 - (f) coordinate the enforcement and implementation of the policy and plan for disaster management;
 - (g) recommend provision of funds for the purpose of mitigation;
 - (h) provide such support to other countries affected by major disasters as may be determined by the Central Government.
 - (i) take such other measures for the prevention of disaster, or the mitigation, or preparedness and capacity building for dealing with the threatening disaster situation or disaster as it may consider necessary;
 - (j) lay down broad policies and guidelines for the functioning of the National Institute of Disaster Management.
 - (k) The Chairperson of the National Authority shall, in the case of emergency, have power to exercise all or any of the powers of the National Authority but exercise of such powers shall be subject *to ex post facto* ratification by the National Authority.
- (7) (1) The National Authority may constitute an advisory committee consisting of experts in the field of disaster management and having practical experience of disaster management at the national, state or district level to make recommendations on different aspects of disaster management.

- (2) The members of the advisory committee shall be paid such allowances as may be prescribed by the Central Government in consultation with the National Authority.

- (8) (1) The Central Government shall, immediately after issue of notification under sub-section (1) of section 3, constitute a National Executive Committee to assist the National Authority in the performance of its functions under this Act.
- (2) The National Executive Committee shall consist of the following members, namely :
 - (a) the Secretary to the Government of India in charge of the Ministry or Department of the Central Government having administrative control of the disaster management, who shall be Chairperson, *ex officio*;
 - (b) the Secretaries to the Government of India in the Ministries or Departments having administrative control of the agriculture, atomic energy, defence, drinking water supply, environment and forests, finance (expenditure), health, power, rural development, science and technology, space, telecommunication, urban development, water resources and the Chief of the Integrated Defence Staff of the Chiefs of Staff Committee, *ex officio*.
- (3) The Chairperson of the National Executive Committee may invite any other officer of the Central Government or a State Government for taking part in any meeting of the National Executive Committee and shall exercise such powers and perform such functions as may be prescribed by the Central Government in consultation with the National Authority.
- (4) The procedure to be followed by the National Executive Committee in exercise of its powers and discharge of its functions shall be such as may be prescribed by the Central Government.

- (9) (1) The National Executive Committee may, as and when it considers necessary, constitute one or more sub-committees, for the efficient discharge of its functions.
- (2) The National Executive Committee shall, from amongst its members, appoint the Chairperson of the sub-committee referred to in sub-section (1).
- (3) Any person associated as an expert with any sub-committee may be paid such allowances as may be prescribed by the Central Government.

- (10) (1) The National Executive Committee shall assist the National Authority in the discharge of its functions and have the responsibility for implementing the policies and plans of the National Authority and ensure the compliance of

directions issued by the Central Government for the purpose of disaster management in the country.

- (2) Without prejudice to the generality of the provisions contained in sub-section (1), the National Executive Committee may –
- (b) lay down policies on disaster management;
 - (c) act as the coordinating and monitoring body for disaster management;
 - (d) (prepare the National Plan to be approved by the National Authority;
 - (e) coordinate and monitor the implementation of the National Policy;
 - (f) lay down guidelines fore preparing disaster management plans by different Ministries or Departments of the Government of India and the State Authorities;
 - (g) provide necessary technical assistance to the State Governments and the State Authorities for preparing their disaster management plans in accordance with the guidelines laid down by the National Authority;
 - (h) monitor the implementation of the National Plan and the plans prepared by the Ministries or Departments of the Government of India.
 - (i) monitor the implementation of the guidelines laid down by the National Authority for integrating of measures for prevention of disasters and mitigation by the Ministries or Departments in their development plans and projects;
 - (j) monitor, coordinate and give directions regarding the mitigation and preparedness measures to be taken by different Ministries or Departments and agencies of the Government.
 - (k) evaluate the preparedness at all governmental levels for the purpose of responding to any threatening disaster situation or disaster and give directions, where necessary, for enhancing such preparedness;
 - (l) plan and coordinate specialized training programme for disaster management for different levels of officers, employees and voluntary rescue workers;
 - (m) coordinate response in the event of any threatening disaster situation or disaster;
 - (n) lay down guidelines for, or give directions to, the concerned Ministries or Departments of the Government of India, the State Governments and the State Authorities regarding measures to be taken by them in response to any threatening disaster situation or disaster;
 - (o) require any department or agency of the Government to make available to the, National Authority or State Authorities such men or material resources as

are available with it for the purposes of emergency response, rescue and relief;

- (p) advise, assist and coordinate the activities of the Ministries or Departments of the Government of India, State Authorities, statutory bodies, other governmental or non-governmental organizations and others engaged in disaster management;
 - (q) provide necessary technical assistance or give advice to the State Authorities and District Authorities for carrying out their functions under this Act;
 - (r) promote general education and awareness in relation to disaster management and
 - (s) perform such other functions as the National Authority may require it to perform.
11. (1) There shall be drawn up a plan for disaster management for the whole of the country to be called the National Plan.
- (2) The National Plan shall be prepared by the National Executive Committee having regard to the National Policy and in consultation with the State Governments and expert bodies or organizations in the field of disaster management to be approved by the National Authority.
- (3) The National Plan shall include
- a) measures to be taken for the prevention of disasters, or the mitigation of their effects;
 - b) measures to be taken for the integration of mitigation measures in the development plans;
 - c) measures to be taken for preparedness and capacity building to effectively respond to any threatening disaster situations or disaster.
 - d) roles and responsibilities of different Ministries or Departments of the Government of India in respect of measures specified in clauses (a), (b) and (c).
- (4) The National Plan shall be reviewed and updated annually.
- (5) Appropriate provisions shall be made by the Central Government for financial the measures to be carried out under the National Plan.
- (6) Copies of the National Plan referred to in sub-sections (2) and (4) shall be made available to the Ministries or Departments of the Government of India such Ministries or Departments shall draw up their own plans in accordance with the National Plan.

12. The National Authority shall recommend guidelines for the minimum standards of relief to be provided to persons affected by disaster, which shall include,
 - (a) the minimum requirements to be provided in the relief camps in relation to shelter, food, drinking water, medical cover and sanitation;
 - (b) the special provisions to be made for widows and orphans;
 - (c) *ex gratia* assistance on account of loss of life as also assistance on account of damage to houses and for restoration of means of livelihood;
 - (d) such other relief as may be necessary.
13. The National Authority may, in cases of disasters of severe magnitude, recommend relief in repayment of loans or for grant of fresh loans to the persons affected by disaster on such concessional terms as may be appropriate.

CHAPTER III

STATE DISASTER MANAGEMENT AUTHORITIES

14.
 - (1) Every State Government shall, as soon as may be after the issue of the notification under sub-section (1) of section 3, by notification in the Official Gazette, establish a State Disaster Management Authority for the State with such, name as may be specified in the notification of the State Government.
 - (2) A State Authority shall consist of the Chairperson and such number of other members, not exceeding nine, as may be prescribed by the State Government and, unless the rules otherwise provide, the State Authority shall consist of the following members, namely :
 - (a) the Chief Minister of the State, who shall be Chairperson, *ex officio*;
 - (b) the Chairperson of the State Executive Committee, *ex officio*.
 - (3) The Chairperson of the State Authority may designate one of the members nominated under clause (b) of sub-section (2) to be the Vice-Chairperson of the State Authority.
 - (4) The Chairperson of the State Executive Committee shall be the Chief Executive Officer of the State Authority, *ex officio*.

Provided further that the Lieutenant Governor of the Union Territory of Delhi shall be the Chairperson and the Chief Minister thereof shall be the Vice-Chairperson of the State Authority.

- (5) The term of office and conditions of service of members of the State Authority shall be such as may be prescribed.
- 15.
 - (1) The State Authority shall meet as and when necessary and at such time and place as the Chairperson of the State Authority may think fit.
 - (2) The Chairperson of the State Authority shall preside over the meetings of the State Authority.
 - (3) If for any reason, the Chairperson of the State Authority is unable to attend the meeting of the State Authority, the Vice-Chairperson of the State Authority shall preside at the meeting.
- 16. The State Government shall provide the State Authority with such officers, consultants and employee, as it considers necessary, for carrying out the functions of the State Authority.
- 17.
 - (1) A State Authority may, as and when it considers necessary, constitute an advisory committee, consisting of experts in the field of disaster management and having practical experience of disaster management to make recommendations on different aspects of disaster management.
 - (2) The members of the advisory committee shall be paid such allowances as may be prescribed by the State Government.
- 18.
 - (1) Subject to the provisions of this Act, a State Authority shall have the responsibility for laying down policies and plans for disaster management in the State.
 - (2) Without prejudice to the generality of provisions contained in sub-section (1), the State Authority may –
 - (a) lay down the State disaster management policy;
 - (b) approve the State Plan in accordance with the guidelines laid down by the National Authority;
 - (c) approve the disaster management plans prepared by the departments of the Government of the State;
 - (d) lay down guidelines to be followed by the departments of the Government of the State for the purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance therefore;

- (e) coordinate the implementation of the State Plan;
 - (f) recommend provision of funds for mitigation and preparedness measures;
 - (g) review the of the different departments of the State and ensure that prevention and mitigation development plans measures are integrated therein;
 - (h) review the measures being taken for mitigation, capacity building and preparedness by the departments of the Government of the State and issue such guidelines as may be necessary.
- (3) The Chairperson of the State Authority shall, in the case of emergency, have power to exercise all or any of the powers of the State Authority but the exercise of such powers shall be subject to *ex post facto* ratification of the State Authority.
19. The State Authority shall lay down detailed guidelines soft providing standards of relief to persons affected by disaster in the State:
- Provided that such standards shall in no case be less than the minimum standards in the guidelines laid down by the National Authority in this regard.
20. (1) The State Government shall, immediately after issue of notification under subsection (1) of section 14, constitute a State Executive Committee to assist the State Authority in the performance of its functions and to coordinate action in accordance with the guidelines laid down by the State Authority and ensure the compliance of directions issued by the State Government under this Act.
- (2) The State Executive Committee hail consist of the following members, namely –
- (a) the Chief Secretary to the State Government, who shall be Chairperson, *ex officio*;
 - (b) four Secretaries to the Government of the State of such departments as the State Government may think fit, *ex officio*.
 - (3) The Chairperson of the State Executive Committee shall exercise such powers and perform such functions as may be prescribed by the State Government and such other powers and functions as may be delegated to him by the State Authority.

- (4) The procedure to be followed by the State Executive Committee in exercise of its powers and discharge of its functions shall be such as may be prescribed by the State Government.
- 21.
 - (1) The State Executive Committee may, as and when it considers necessary, constitute one or more sub-committees, for efficient discharge of its functions.
 - (2) The State Executive Committee shall, from amongst its members, appoint the Chairperson of the sub-committee referred to in sub-section (1).
 - (3) Any person associated as an expert with any sub-committee may be paid such allowances as may be prescribed by the State Government.
- 22.
 - (1) The State Executive Committee shall have the responsibility for implementing the National Plan and State Plan and act as the coordinating and monitoring body for management of disaster in the State.
 - (2) Without prejudice to the generality of the provisions of sub-section (1), the State Executive Committee may
 - (a) coordinate and monitor the implementation of the National Policy, the National Plan and the State Plan;
 - (b) examine the vulnerability of different parts of the State to different forms of disasters and specify measures to be taken for their prevention or mitigation.
 - (c) lay down guidelines for preparation of disaster management plans by the departments of the Government of the State and the District Authorities.
 - (d) monitor the implementation of disaster management plans prepared by the departments of the Government of the State and District Authorities.
 - (e) monitor the implementation of the guidelines laid down by the State Authority for integrating of measures for prevention of disasters and mitigation by the departments in their development plans and projects;
 - (f) evaluate preparedness at al governmental or non-governmental levels to respond to any threatening disaster situation or disaster and give directions, where necessary, for enhancing such preparedness.

- (g) coordinate response in the event of any threatening disaster situation or disaster.
- (h) give directions to any Department of the Government of the State or any other authority or body in the State regarding actions to be taken in response to any threatening disaster situation or disaster.
- (i) promote general education, awareness and community training in regard to the forms of disasters to which different parts of the State are vulnerable and the measures that may be taken by such community to prevent the disaster, mitigate and respond to such disaster.
- (j) advise, assist and coordinate the activities of the Departments of the Government of the State, District Authorities, statutory bodies and other governmental and non-governmental organizations engaged in disaster management.
- (k) provide necessary technical assistance or give advice to District Authorities and local authorities for carrying out their functions effectively;
- (l) advise the State Government regarding all financial matters in relation to disaster management;
- (m) examine the construction, in any local area in the State and, if it is of the opinion that the standards laid for such construction for the prevention of disaster is not being or has not been followed, may direct the District Authority or the local authority, as the case may be, to take such action as may be necessary to secure compliance of such standards;
- (n) provide information to the National Authority relating to different aspects of disaster management.
- (o) lay down, review and update State level response plans and guidelines and ensure that the district level plans are prepared, reviewed and updated;
- (p) ensure that communication systems are in order and the disaster management drills are carried out periodically;
- (q) perform such other functions as may be assigned to it by the State Authority or as it may consider necessary.

23. (1) There shall be a plan for disaster management for every State to be called the State Disaster Management Plan.
- (2) The State Plan shall be prepared by the State Executive Committee having regard to the guidelines laid down by the National Authority and after such consultation with local authorities, district authorities and the people's representatives as the State Executive Committee may deem fit.
- (3) The State Plan prepared by the State Executive Committee under sub-section(2) shall be approved by the State Authority.
- (4) The State Plan shall include,
- (a) the vulnerability of different parts of the State to different forms of disasters;
 - (b) the measures to be adopted for prevention and mitigation of disasters;
 - (c) the manner in which the mitigation measures shall be integrated with the development plans and projects;
 - (d) the capacity-building and preparedness measures to be taken;
 - (e) the roles and responsibilities of each Department of the Government of the State in relation to the measures specified in clauses (b), (c) and above;
 - (f) the roles and responsibilities of different Departments of the Government of the State in responding to any threatening disaster situation or disaster.
- (5) The State Plan shall be reviewed and updated annually.
- (6) Appropriate provisions shall be made by the State Government for financing for the measures to be carried out under the State Plan.
- (7) Copies of the State Plan referred to in sub-sections (2) and (5) shall be made available to the Departments of the Government of the State and such Departments shall draw up their own plans in accordance with the State Plan.
24. For the purpose of, assisting and protecting the community affected by disaster or providing relief to such community or, preventing or combating disruption or dealing with the effects of any threatening disaster situation, the State Executive Committee may

- (a) require any department of the Government of the State or any other body or authority or person in charge of any relevant resources to make available the resources for the purposes of emergency response, rescue and relief;
- (b) require experts and consultants in the field of disasters to provide advice and assistance for rescue and relief;
- (c) procure exclusive or preferential use of amenities from any authority or person as and when required;
- (d) construct temporary bridges or other necessary structures and demolish unsafe structures which may be hazardous to public;
- (e) ensure that non-governmental organizations carry out their activities in a equitable and non-discriminatory manner;
- (f) disseminate information to public to deal with any threatening disaster situation or disaster;
- (g) take such steps as the Central Government or the State Government may direct in this regard or take such other steps as are required or warranted by the form of any threatening disaster situation or disaster.

CHAPTER IV

DISTRICT DISASTER MANAGEMENT AUTHORITY

25. (1) Every State Government shall, as soon as may be after issue of notification under sub-section (1) of section 14, by notification in the Official Gazette, establish a District Disaster Management Authority for every district in the State with such name as may be specified in that notification.
- (2) The District Authority shall consist of the Chairperson and such number of other members, not exceeding seven, as may be prescribed by the State Government, and unless the rules otherwise provide, it shall consist of the following, namely :-
- (a) the Collector of District Magistrate or Deputy Commissioner, as the case may be, of the district who shall be Chairperson, *ex Wick*;
 - (b) the elected representative of the local authority who shall be the co-Chairperson, *ex officio*;

Provided that in the Tribal Areas, as referred to in the Sixth Schedule to the Constitution, the Chief Executive Member of the district council of autonomous district, shall be the co-Chairperson, *ex officio*;

- (c) the Chief Executive Officer of the District Authority, *ex officio*;
 - (d) the Superintendent of Police, *ex-officio*;
 - (e) the Chief Medical Officer of the district, *ex officio*;
 - (f) not exceeding two other district level officers, to be appointed by the State Government.
- (3) In any district where Zila Parishad exists, the Chairperson thereof shall be the co-Chairperson of the District Authority.
- (4) The State Government shall appoint an officer not below the rank of Additional Collector or Additional District Magistrate or Additional Deputy Commissioner, as the case may be, of the district to be the Chief Executive Officer of the District Authority to exercise such powers and perform such functions as may be prescribed by the State Government and such other powers and functions as may be delegated to him by the District Authority.
26. (1) The Chairperson of the District Authority shall, in addition to presiding over the meetings of the District Authority, exercise and discharge such powers and functions of the District Authority as the District Authority may delegate to him.
- (2) The Chairperson of the District Authority shall, in the case of an emergency, have power to exercise all or any of the powers of the District Authority but the exercise of such powers shall be subject to *ex post facto* ratification of the District Authority.
- (3) The District Authority or the Chairperson of the District Authority may, be general or special order, in writing, delegate such of its or his powers and functions, under subsection (1) or (2), as the case may be, to the Chief Executive Officer of the District Authority, subject to such conditions and limitations, if any, as it or he deems fit.
27. The District Authority shall meet as and when necessary and at such time and place as the Chairperson may think fit.
28. (1) The District Authority may, as and when it considers necessary, constitute one or more advisor committees and other committees for the efficient discharge of its functions.
- (2) The District Authority shall, from amongst its members, appoint the Chairperson of the Committee referred to in sub-section (1).

- (3) Any person associated as an expert with any committee or sub-committee constituted under sub-section (1) may be paid such allowances as may be prescribed by the State Government.
- 29. The State Government shall provide the District Authority with such officers, consultants and other employees as it considers necessary for carrying out the functions of District Authority.
- 30.
 - (1) The District Authority shall act as the district planning, coordinating and implementing body for disaster management and take all measures for the purposes of disaster management in the district in accordance with the guidelines laid down by the National Authority and the State Authority.
 - (2) Without prejudice to the generality of the provisions of sub-section (1), the District Authority may
 - (i) prepare a disaster management plan including district response plan for the district;
 - (ii) coordinate and monitor the implementation of the National Policy, State Policy, National Plan, State Plan and District Plan.
 - (iii) ensure that the areas in the district vulnerable to disasters are identified and measures for the prevention of disasters and the mitigation of its effects are undertaken by the departments of the Government at the district level as well as by the local authorities.
 - (iv) ensure that the guidelines for prevention of disasters, mitigation of its effects, preparedness and response measures as laid down by the National Authority and the State Authority are followed by all departments of the Government at the district level and the local authorities in the district.
 - (v) give directions to different authorities at the district level and local authorities to take such other measures for the prevention or mitigation of disasters as may be necessary;
 - (vi) lay down guidelines for prevention of disaster management plans by the department of the Government at the districts level and local authorities in the district –
 - (vii) monitor the implementation of disaster management plans prepared by the Departments of the Government at the district level;

- (viii) lay down guidelines to be followed by the Departments of the Government at the district level for purposes of integration of measures for prevention of disasters and mitigation in their development plans and projects and provide necessary technical assistance therefore;
- (ix) monitor the implementation of measures referred to in clause (viii);
- (x) review the State of Capabilities for responding to any disaster or threatening disaster situation in the district and give directions to the relevant departments or authorities at the district level for their upgradation as may be necessary.
- (xi) review the preparedness measures and give directions to the concerned departments at the district level or other concerned authorities where necessary for bringing the preparedness measures to the levels required for responding effectively to any disaster or threatening disaster situation;
- (xii) organize and coordinate specialized training programmes for different levels of officers, employees and voluntary rescue workers in the district;
- (xiii) facilitate community training and awareness programmes for prevention of disaster of mitigation with the support of local authorities, governmental and non-governmental organization.
- (xiv) set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
- (xv) prepare, review and update district level response plan and guidelines;
- (xvi) coordinate response to any threatening disaster situation or disaster;
- (xvii) ensure that the Departments of the Government at the district level and the local authorities prepare their response plans in accordance with the district response plan;
- (xviii) lay down guidelines for, or give direction to, the concerned Department of the Government at the district level or any other authorities within the local limits of the district to take measures to respond effectively to any threatening disaster situation or disaster;

- (xix) advise, assist and coordinate the activities of the Departments of the Government at the district level, statutory bodies and other governmental and non-governmental organizations in the district engaged in the disaster management;
- (xx) coordinate with, and give guidelines to, local authorities in the district to ensure that measures for the prevention of disaster or mitigation.
- (xxi) provide necessary technical assistance or give advise to the local authorities in the district for carrying out their functions;
- (xxii) review development plans prepared by the Departments of the Government at the district level, statutory authorities or local authorities with a view to make necessary provisions therein for prevention of disaster or mitigation;
- (xxiii) examine the construction in any are in the district and, if it is of the opinion that the standards for the prevention of disaster or mitigation laid down for, such construction is not being or has not been followed, may direct the concerned authority to take such action as may be necessary to secure compliance of such standards;
- (xxiv) identify buildings and places which could, in the event of any threatening disaster situation or disaster, be used as relief centers or camps and make arrangements for water supply and sanitation in such buildings or places;
- (xxv) establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;
- (xxvi) provide information to the State Authority relating to different aspects of disaster management.
- (xxvii) encourage the involvement of non-governmental organizations and voluntary social-welfare institutions working at the grassroots level in the district for disaster management;
- (xxviii) ensure communication systems are in order, and disable management drills are carried out periodically;
- (xxix) perform such other functions as die State Government or State Authority may assign to it or as it deems necessary for disaster management in the District.

31. (1) there shall be a plan for disaster management for every district of the State.
- (2) The District Plan shall be prepared by the District Authority, after consultation with the local authorities and having regard to the National Plan and the State Plan, to be approved by the State Authority.
- (3) The District Plan shall include
- (a) the areas in the district vulnerable to different forms of disasters;
 - (b) the measures to be taken, for prevention and mitigation of disaster, by the Departments of the Government at the district level and local authorities in the district;
 - (c) the capacity-building and preparedness measures required to be taken by the Departments of the Government at the district level and the local authorities in the district to respond to any threatening disaster situation or disaster;
 - (d) the response plans and procedures, in the event of a disaster, providing for –
 - (e) allocation of responsibilities to the Departments of the Government at the district level and the local authorities in the district;
 - (i) prompt response to disaster and relief thereof;
 - (ii) procurement of essential resources;
 - (iii) establishment of communication links; and
 - (iv) the dissemination of information to the public;
 - (f) such other matters as may be required by the State Authority.
- (4) The District Plan shall be reviewed and updated annually.
- (5) The copies of the District Plan referred to in sub-sections (2) and (4) shall be made available to the Departments of the Government in the district.
- (6) The District Authority shall send a copy of the District Plan to the State Authority which shall forward it to the State Government.
- (7) The District Authority shall, review from time to time, the implementation of the Plan and issue such Instructions to different departments of the

Government in the district as it may deem necessary for the implementation thereof.

32. Every office of the Government of India and of the State Government at the district different level and the local authorities shall, subject to the supervision of the District Authority:-
- (a) prepare a disaster, management plan setting out the following, namely;
 - (i) provisions for prevention and mitigation measures as provided for in the District Plan and as is assigned to the department or agency concerned;
 - (ii) provisions for taking measures relating to capacity-building and preparedness as laid down in the District Plan;
 - (iii) the response plans and procedures, in the event of, any threatening disaster situation or disaster;
 - (b) coordinate the preparation and the implementation of its plan with those of the other organizations at the district level including local authority, communities and other stakeholders;
 - (c) regularly review and update the plan; and
 - (d) submit a copy of its disaster management plan, and of any amendment thereto, to the District Authority.’
33. The District Authority may be order require any officer or any Department at the district level or nay local authority to take such measures for the prevention or mitigation of disaster or to effectively respond to it, as may be necessary, and such officer or department shall be bound to carry out such order.
34. For the purpose of assisting, protecting or providing relief to the community, in response to any threatening disaster situation or disaster, the District Authority may
- (a) give directions for the release and use of resources available with any Department of the Government and the local authority in the district;
 - (b) control and restrict vehicular traffic to, from and within, the vulnerable or affected areas;
 - (c) control and restrict the entry of any person into, his movement within and departure from, a vulnerable or affected areas;
 - (d) remove debris, conduct search and carry out rescue operations;

- (e) provide shelter, food, drinking water and essential provisions, healthcare and services;
- (f) establish emergency communication systems in the affected area;
- (g) make arrangements for the disposal of the unclaimed dead bodies;
- (h) recommend to any Department of the Government of the State or any authority or body under that Government at the district level to take such measures as are necessary in its opinion;
- (i) require experts and consultants in the relevant fields to advise and assist as it may deem necessary;
- (j) procure exclusive or preferential use of amenities from any authority or person;
- (k) construct temporary bridges or other necessary structures and demolish structures which may be hazardous to public or aggravate the effects of the disaster;
- (l) ensure that the non-governmental organizations carry out their activities in an equitable and non-discriminatory manner;
- (m) take such other steps as may be required or warranted to be taken in such a situation.

CHAPTER V

MEASURES BY THE GOVERNMENT FOR DISASTER MANAGEMENT

35. (1) Subject to the provisions of this Act, the Central Government shall take all such **measures** as it deems necessary or expedient for the purpose of disaster management.
- (2) **In** particular and without prejudice to the generality of the provisions of sub-section (1), the measures which the Central Government may take under that sub-section include measures with respect to all or nay of the following matters, namely;
- (a) coordination of actions of the Ministries or Departments of the Government of India, State Governments, National Authority, State Authorities, governmental and non-governmental organizations in relation to disaster management;

- (b) ensure the integration of measures for prevention of disasters and mitigation by Ministries or Departments of the Government of India into their development plans and projects;
 - (c) ensure appropriate allocation of funds for prevention of disaster, mitigation, capacity-building and preparedness by the Ministries or Departments of the Government of India;
 - (d) ensure that the Ministries or Departments of the Government of India take necessary measures for preparedness to promptly and effectively respond to any threatening disaster situation or disaster;
 - (e) cooperation and assistance to State Governments, as requested by them or otherwise deemed appropriate by it;
 - (f) deployment of naval, military and air forces, other armed forces of the Union or any other civilian personnels as may be required for the purposes of this Act;
 - (g) coordination with the United Nations agencies, international organizations and governments of foreign countries for the purposes of this Act.
 - (h) establish institutions for research, training, and developmental programmes in the field of disaster management.
 - (i) such other matters as it deems necessary or expedient for the purpose of securing effective implementation of the provisions of this Act;
- (3) The Central Government may extend such support to other countries affected by major disaster as it may deem appropriate.
36. It shall be the responsibility of every Ministry or Department of the Government of India to –
- (a) take measures necessary for prevention of disasters, mitigation, preparedness and capacity-building in accordance with the guidelines laid down by the National Authority.
 - (b) integrate into its development plans and projects, the measures for prevention or mitigation of disasters in accordance with the guidelines laid down by the National Authority;

- (c) respond effectively and promptly to any threatening disaster situation or disaster in accordance with the guidelines of the National Authority or the directions of the National Executive Committee in this behalf;
 - (d) review the enactments administered by it, its policies, rules and regulations, with a view to incorporate therein the provisions necessary for prevention of disasters, mitigation or preparedness.
 - (e) allocate funds for measures for prevention of disaster, mitigation, capacity-building and preparedness.
 - (f) provide assistance to the National Authority and State Governments for
 - (r) drawing up mitigation, preparedness and response plans, capacity building, data collection and identification and training of personnel in relation to disaster management;
 - (i) carrying out rescue and relief operations in the affected area;
 - (ii) assessing the damage from any disaster;
 - (iii) carrying out rehabilitation and reconstruction;
 - (h) take such other actions as it may consider necessary for disaster management.³⁷.
 - (g) make available its resources to the National Executive Committee or a State Executive Committee for the purposes of responding promptly and effectively to any threatening disaster situation or disaster, including measures for
 - (i) providing emergency communication in a vulnerable or affected area;
(it) transporting personnel and relief goods to and from the affected area;
 - (ii) providing evacuation, rescue, temporary shelter or other immediate relief;
 - (iii) setting up temporary bridges; jetties and landing places;
 - (iv) providing, drinking water, essential provisions, healthcare, and services in an affected area;
37. (i) Every Ministry or Department of the Government of India shall-

- (a) prepare a disaster management plan specifying the following particulars, namely:
 - (b) the measures to be taken by it for prevention and mitigation of disaster in accordance with the National plan;
 - (ii) the specifications regarding integration of mitigation measures in its development plans in accordance with the guidelines of the National Authority and the National Executive Committee;
 - (iii) its roles and responsibilities in relation to preparedness and capacity building to deal with any threatening disaster situation or disaster;
 - (iv) its roles and responsibilities in regard to promptly and effectively responding to any threatening disaster situation or disaster;
 - (v) the present status of its preparedness to perform the roles and responsibilities specified in sub-clauses (iii) and (iv);
 - (vi) the measures required to be taken in order to enable it to perform its responsibilities specified in sub-clauses (iii) and (iv);
 - (b) review and update annually the plan referred to in clause (a);
 - (c) forward a copy of the plan referred to in clause (a) or clause (b), as the case may be, to the Central Government shall forward a copy thereof to the National Authority for its approval.
 - (2) Every Ministry or Department of the Government of India shall
 - (a) make, while preparing disaster management plan under clause (a) of subsection (1), provisions for financial the activities specified therein;
 - (b) furnish a status report regarding the implementation of the plan referred to in clause (a) of sub-section (1) to the National Authority, as and when required by it.
38. (1) Subject to the provisions of this Act, each State Government shall take all measures specified in the guidelines laid down by the National Authority and such further measures as it deems necessary or expedient, for the purpose of disaster management.
- (2) The measures which the State Government may take under sub-section (1) include measures with respect to all or any of the following matters, namely;

- (a) coordination of actions of different departments of the Government of the State, the State Authority, District Authorities, local authority and other non-governmental organization;
- (b) cooperation and assistance in the disaster management to the National Authority and National Executive Committee, the State Authority and the State Executive Committee,, and the District Authorities;
- (c) cooperation with, and assistance to, the Ministries or Departments of the Government of India is disaster management, as requested by them or otherwise deemed appropriate by it;
- (d) allocation of funds for measures for prevention of disaster, mitigation, capacity-building and preparedness by the departments of the Government of the State in accordance with the provisions of the State Plan and the District Plans;
- (e) ensure that the integration of measures for prevention of disaster mitigation by the departments of the Government of the State in their development plans and projects;
- (f) integrate in the State Development plan, measures to reduce or mitigate the vulnerability of different parts of the State to different disasters;
- (h) establishment of adequate warning systems up to the level of vulnerable communities;
- (i) ensure that different departments of the Government of the State and the District Authorities take appropriate preparedness measures;
- (j) ensure that in a threatening disaster situation or disaster, the resources of different departments of the Government of the State are made available to the National Executive Committee or the State Executive Committee or the District Authorities, as the case may be, for the purposes of effective response, rescue and relief in any threatening disaster situation or disaster;
- (k) provide rehabilitation and reconstruction assistance to the victims of any disaster; and
- (l) such other matters as it deems necessary or expedient for the purpose of securing effective implementation of provisions of this Act,

39. It shall be the responsibility of every department of the Government of a State to –
- (a) take measures necessary for prevention of disasters, mitigation, preparedness and capacity-building in accordance with the guidelines laid down by the National Authority and the State Authority;
 - (b) integrate into its development plans and projects, the measures for prevent* of disaster and mitigation;
 - (c) allocate funds for prevention of disaster, mitigation, capacity-building and preparedness;
 - (d) respond effectively and promptly to any threatening disaster situation or disaster in accordance with the State Plan, and in accordance with the guidelines or directions of the National Executive Committee and the State Executive Committee;
 - (e) review the enactments administered by it, its policies, rules and regulations with a view to incorporate therein the provisions necessary for prevention of disasters, mitigation or preparedness;
 - (f) provide assistance, as required, by the National Executive Committee, the State Executive Committee and District Authorities, for –
 - (i) drawing up mitigation, preparedness and response plans, capacity-building, data collection and identification and training of personnel in relation to disaster management;
 - (ii) assessing the damage from any disaster;
 - (iii) carrying out rehabilitation and reconstruction;
 - (g) make provision for resources in consultation with the State Authority for the implementation of the District Plan by its authorities at the district level;
 - (h) make available its resources to the National Executive Committee or the State Executive Committee or the District Authorities for the purposes of responding promptly and effectively to any disaster in the State, including measures for
 - (i) providing emergency communication with a vulnerable or affected area;
 - (ii) transporting personnel and relief goods to and from the affected area;

- (iii) providing evacuation, rescue, temporary shelter or other immediate relief;
 - (iv) carrying out evacuation of persons or live-stock from an area of any threatening disaster situation or disaster.
 - (v) setting up temporary bridges, jetties and landing places;
 - (vi) providing drinking water, essential provisions, healthcare and services in an affected area;
 - (vii) such other actions as may be necessary for disaster management.
40. (1) Every department of the State Government, in conformity with the guidelines laid down by the State Authority, shall
- (a) prepare a disaster management plan which shall lay down the following :
 - (i) the types of disasters to which different parts of the state are vulnerable;
 - (ii) integration of strategies for the prevention of disaster or the mitigation of its effects or both with the development plans and programmes by the department;
 - (iii) the roles and responsibilities of the department of the State in the event of any threatening disaster situation or disaster and emergency support function it is required to perform;
 - (iv) present status of its preparedness to perform such roles or responsibilities or emergency support function under sub-clause (iii);
 - (v) the capacity-building and preparedness measures proposed to be put – into effect in order to enable the Ministries or Departments of the Government of India to discharge their responsibilities under section 37;
 - (b) annually review and update the plan referred to in clause (a); and
 - (c) furnish a copy of the plan referred to in clause (a) or clause (b), as the case may be, to the State Authority.

- (2) Every department of the State Government, while preparing the plan under sub-section (1), shall make provisions for financing the activities specified therein.
- (3) Every department of the State Government shall furnish an implementation status report to the State Executive Committee regarding the implementation of the disaster management plan referred to in sub-section (1).

CHAPTER VI LOCAL AUTHORITIES

41. (1) Subject to the directions of the District Authority, a local authority shall –
- (a) ensure that its officers and employees are trained for disaster management;
 - (b) ensure that resources relating to disaster management are so maintained as to be readily available for use in the event of any threatening disaster situation or disaster.
 - (c) ensure all construction projects under it or within its jurisdiction conform to the standards and specifications laid down for prevention of disasters and mitigation by the National Authority, State Authority and the District Authority;
 - (d) carry out relief, rehabilitation and reconstruction activities in the affected area in accordance with the State Plan and the District Plan.
- (2) The local authority may take such other measures as may be necessary for the disaster management.

CHAPTER VII NATIONAL INSTITUTE OF DISASTER MANAGEMENT

42. (1) With effect from such date as the Central Government may, by notification in the Official Gazette appoint in this behalf, there shall be constituted an institute to be called the National Institute of Disaster Management.
- (2) The National Institute of Disaster Management shall consist of such number of members as may be prescribed by the Central Government.
- (3) The term of office of, and vacancies among, members of the National Institute of Disaster Management and manner of filling such vacancies shall be such as may be prescribed.

- (4) There shall be a governing body of the National Institute of District Management which shall be constituted by the Central Government from amongst the members of the National Institute of Disaster Management in such manner as may be prescribed.
- (5) The governing body of the National Institute of Disaster Management shall exercise such powers and discharge such functions as may be prescribed by regulations.
- (6) The procedure to be followed in exercise of its powers and discharge of its functions by the governing body, and the term of office of, and the manner of filling vacancies among the members of the governing body, shall be such as may be prescribed by regulations.
- (7) Until the regulations are made under this section, the Central Government may make such regulations; and any regulation so made may be altered or rescinded by the National Institute of Disaster Management in exercise of its powers.
- (8) Subject to the provisions of this Act, the National Institute of Disaster Management shall function within the broad policies and guidelines laid down by the National Authority and be responsible for planning and promoting training and research in the area of disaster management, documentation and development of national level information base relating to disaster management policies, prevention mechanisms and mitigation measures.
- (9) Without prejudice to the generality of the provisions contained in sub-section (8), the National Institute, for the discharge of its functions, may –
 - (a) develop training modules, undertake research and documentation in disaster management and organize training programmes;
 - (b) formulate and implement a comprehensive human resource development plan covering all aspects of disaster management;
 - (c) provide assistance in national level policy formulation;
 - (d) provide required assistance to the training and research institutes for development of training and research programmes for stakeholders including Government functionaries and undertake training of faculty members of the State level training institutes;
 - (e) provide assistance to the State Governments and State training institutes in the formulation of State Level policies, strategies,

disaster management framework and any other assistance as may be required by the State Governments or State training institutes for capacity-building of stakeholders, Government including its functionaries, civil society members, corporate sector and people's elected representatives.

- (f) develop educational materials for disaster management including academic and professional courses;
- (g) promote awareness among stakeholders including college or school teachers and students, technical personnel and other associated with multi-hazard mitigation, preparedness and response measures;
- (h) undertake, organize and facilitate study courses, conference, lectures, seminar within and outside the country to promote the aforesaid objects;
- (i) undertake and provide for publication of journals, research papers and books and establish and maintain libraries in furtherance of the aforesaid objects;
- (j) do all such other lawful things as are conducive or incidental to the attainment of the above objects; and
- (k) undertake any other function as may be assigned to it by the Central Government.

43. The Central Government shall provide the National Institute of Disaster Management with such officers, consultants and other employees, as it considers necessary, for carrying out its functions.

CHAPTER VIII

NATIONAL DISASTER RESPONSE FORCE

44. (1) There shall be constituted a National Disaster Response Force for the purpose of specialist response to a threatening disaster situation or disaster.
- (2) Subject to the provisions of this Act, the Force shall be constituted in such manner and, the conditions of service of the members of the Force, including disciplinary provisions therefore, be such as may be prescribed.
45. The general superintendent, direction and control of the Force shall be vested and exercised by the National Authority and the command and supervision of the Force shall vest in an officer to be appointed by the Central Government as the Director General of the National Disaster Response Force.

CHAPTER IX
FINANCE, ACCOUNTS AND AUDIT

46. (1) The Central Government may, by notification in the Official Gazette, constitute a fund to be called the National Disaster Response Fund for meeting any threatening disaster situation or disaster and there shall be credited thereto.
- (a) an amount which the Central Government may, after due appropriation made by Parliament by law in this behalf provide;
- (b) any grants that may be made by any person or institution for the purpose of disaster management.
- (2) The National Disaster Response Fund shall be made available to the National Executive Committee to be applied towards meeting the expenses for emergency response, relief and rehabilitation in accordance with the guidelines laid down by the Central Government in consultation with the National Authority.
47. (1) The Central Government may, by notification in the Official Gazette, constitute a Fund to be called the National Disaster Mitigation Fund for projects exclusively for the purpose of mitigation and there shall be credited thereto such amount which the Central Government may, after due appropriation made by Parliament by law in this behalf, provide.
- (2) The National Disaster Mitigation Fund shall be applied by the National Authority.
48. (1) The State government shall, immediately after notifications issued for constituting the State Authority and the District Authorities, establish for the purposes of this Act the following funds, namely;
- (2) The State Government shall ensure that the-funds established
- (i) under clause (a) of sub-section (1) is available to the State Executive Committee;
- (ii) under sub-clause (c) of sub-section (1) is available to the State Authority;
- (iii) under clause (b) and (d) of sub-section (1) are available to the District Authority.

49. (1) Every Ministry or Department of the Government of India shall make provisions, in its annual budget, for funds for the purposes of carrying out the activities and programmes set out in its disaster management plan.
- (2) The provisions of sub-section (1) shall, mutatis mutandis, apply to departments of the Government of the State
50. Where by reason of any threatening disaster situation or disaster, the National Authority or the State Authority or the District Authority is satisfied that immediate procurement of provisions or materials or the immediate application of resources are necessary for rescue or relief.
- (a) it may authorize the concerned department or authority to make the emergency procurement and in such case, the standard procedure requiring inviting of tenders shall be deemed to be waived;
- (b) a certificate about utilization of provisions or materials by the controlling officer authorized by the National Authority, State Authority or District Authority, as the case may be, shall be deemed to be a valid document or voucher for the purpose of accounting of emergency, procurement of such provisions or materials.

CHAPTER X

OFFENCES AND PENALTIES

51. Whoever, without reasonable cause
- (a) obstructs any officer or employee of the Central Government or the State Government, or a person authorized by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or
- (b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act,

Shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority,

shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or willfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.
54. Whoever makes or circulates a false alarm or warning as to disaster or its severity or magnitude, leading to panic, shall on conviction, be punishable with imprisonment which may extend to one year or with fine.
55. (1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly unless he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.
- (2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.
56. Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.
57. If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.
58. (1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly.

Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence.

- (2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation – For the purpose of this section –

- (a) “company” means any body corporate and includes a firm or other association of individuals; and
- (b) “director”, in relation to a firm, means a partner in the firm.
59. No prosecution for offences punishable under section 55 and 56 shall be instituted except with the previous sanction of the Central Government or the State Government, as the case may be, or of any officer authorized in this behalf, by general or special order, by such Government.
60. No court shall take cognizance of an offence under this Act except on a complaint made by
- (a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorized in this behalf by that Authority or Government, as the case may be; or
- (b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorized as aforesaid

CHAPTER XI

MISCELLANEOUS

61. While providing compensation and relief to the victims of disaster, there shall be no discrimination on the ground of sex, caste, community, descent or religion.

62. Notwithstanding anything contained in any other law for the time being in force, it shall be lawful for the Central Government to issue direction in writing to the Ministries or Departments of the Government of India, or the National Executive Committee or the State Government, State Authority, State Executive Committee, statutory bodies or any of its officers or employees, as the case may be, to facilitate or assist in the disaster management and such Ministry or Department or Government or Authority, Executive Committee, statutory body, officer or employee shall be bound to comply with such direction.
63. Any officer or authority of the Union or a State, when requested by the National Executive Committee, any State Executive Committee or District Authority or any person authorized by such Committee or Authority in this behalf, shall make available to that Committee or authority or person, such officers and employees as requested for, to perform any of the functions in connection with the prevention of disaster or mitigation or rescue or relief work.
64. Subject to the provisions of this Act, if it appears to the National Executive Committee, State Executive Committee or the District Authority, as the case may be, that provisions of any rule, regulation, notification, guideline, instruction, order, scheme or byelaws, as the case may be; are required to be made or amended for the purposes of prevention of disasters or the mitigation thereof, it may require the amendment of such rules, regulation, notification, guidelines, instruction, order, scheme or bye-laws, as the case may be, for that purpose, and the appropriate department or authority shall take necessary action to comply with the requirement.
65. (1) If it appears to the National Executive Committee, State Executive Committee or District Authority or any officer as may be authorized by it in this behalf that
- (a) any resources with any authority or person are needed for the purpose of prompt response;
 - (b) any premises are needed or likely to be needed for the purpose of rescue operations; or
 - (c) any vehicle is needed or is likely to be needed for the purposes of transport of resources from disaster affected areas or transport of resources to the affected area or transport in connection with rescue, rehabilitation or reconstruction, such authority may, by order in writing, requisition such resources or premises or such vehicle, as the case may be, and may make such further orders as may appear to it to be necessary or expedient in connection with the requisitioning.

- (2) Whenever any resource, premises or vehicle is requisitioned under sub-section (1), the period of such requisition shall not extend beyond the period for which such resource, premises or vehicle is required for any of the purpose mentioned in that sub-section.
 - (3) In this section,
 - (a) “resources” includes men and material resources;
 - (b) “services” includes facilities;
 - (c) “premises” means any land, building or part of a building and includes a hut, shed or other structure or any part thereof;
 - (d) “vehicle” means any vehicle used or capable of being used for the purpose of transport, whether propelled by mechanical power or otherwise.
66. (1) Whenever any Committee, Authority or officer referred to in sub-section (1) of section 65, in pursuance of that section requisitions any premises, there shall be paid to the persons interested compensation the amount of which shall be determined by taking into consideration the following, namely;
- (i) the rent payable in respect of the premises, or if no rent is so payable, the rent payable for similar premises in the locality.
 - (ii) if as consequence of the requisition of the premises the person interested is compelled to change his residence or place of business, the reasonable expenses (if any) incidental to such change;

Provided that where any person interested being aggrieved by the amount of compensation so determined makes an application within the thirty days to the Central Government or the State Government, as the case may be, for referring the matter to an arbitrator, the amount of compensation to be paid shall be such as the arbitrator appointed in this behalf by the Central Government or the State Government, as the case may be, may determine.

Provided further that where there is any dispute as to the title to receive the compensation or as to the apportionment of the amount of compensation, it shall be referred by the Central Government or the State Government, as the case may be, to an arbitrator appointed in this behalf by the Central Government or the State Government, as the case may be, for determination, and shall be determined in accordance with the decision of such arbitrator.

Explanation – In this sub-section, the expression “person interested” means the person who was in actual possession of the premises requisitioned under, section 65 immediately before the requisition, or where no person was in such actual possession, the owner of such premises.

- (2) Whenever any Committee, Authority or officer, referred to in sub-section (1) of section 65 in pursuance of that section requisitions any vehicle, there shall be paid to the owner thereof compensation the amount of which shall be determined by the Central Government or the State Government the case may be, on the basis of the fares or rates prevailing in the locality or the hire of such vehicle:

Provided that where the owner of such vehicle being aggrieved by the amount of compensations so determined makes an application within the prescribed time to the Central Government or the State Government, as the case may be, for referring the matter to an arbitrator, the amount of compensation to be paid shall be such as the arbitrator appointed in this behalf by the Central Government or the State Government, as the case may be, may determine :

Provided further that where immediately before the requisitioning the vehicle or vessel was by virtue of a hire purchase agreement in the possession of a person other than the owner, the amount determined under this sub-section as the total compensation payable in respect of the requisition shall be apportioned between that person and the owner in such manner as they may agree upon, and in default of agreement, in such manner as an arbitrator appointed by the Central Government or the State Government, as the case may be, in this behalf may decide.

67. The National Authority, the State Authority, or a District Authority may recommend to the Government to give direction to any authority or person in control of any audio or audio-visual media or such other means of communication as may be available to carry any warning or advisories regarding any threatening disaster situation or disaster, and the said means of communication and media as designated shall comply with such direction.
68. Every order or decision of the National Authority or the National Executive Committee, the State Authority, or the State Executive Committee or the District Authority, shall be authenticated by such officers of the National Authority or the National Executive Committee or, the State Executive Committee, or the District Authority, as may be authorized by it in this behalf.
69. The National Executive Committee, State Executive Committee, as the case may be, by general or special order in writing, may delegate to the Chairperson or any other

member or to any officer, subject to such conditions and limitations, if any, as may be specified in the order, such of its powers and functions under this Act as it may deem necessary.

70. (1) The National Authority shall prepare once every year, in such form and at such time as may be prescribed, an annual report giving a true, and full account of its activities during the previous year and copies thereof shall be forwarded to the Central Government and that Government shall cause the same to be laid before both Houses of Parliament within one month of its receipt.
- (2) The State Authority shall prepare once in every year, in such form and at such time as may be prescribed, an annual report giving a true and full account of its activities during the previous year and copies thereof shall be forwarded to the State Government and that Government shall cause the same to be laid before each House of the State Legislature where it consists of two Houses, or where such Legislature consists of one House, before that House.
71. No court (except the Supreme Court or a High Court) shall have jurisdiction to entertain any suit or proceeding in respect of anything done, action taken, orders made, direction, instruction or guidelines issued by the Central Government, National Authority, State Government, State Authority or District Authority in pursuance of any power conferred by, or in relation to its functions, by this Act.
72. The provisions of this Act, shall have effect, notwithstanding anything inconsistent therewith contained in any other law for the time being in force or in any instrument having effect by virtue of any law other than this Act.
73. No suit or prosecution or other proceeding shall lie in any court against the Central Government or the National Authority or the State Government or the State Authority or the District authority or local authority or any officer or employee of the Central Government or the National Authority or the State Government or the State Authority or the District Authority or local authority or any person working for on behalf of such Government or authority in respect of any work done or purported to have been done or intended to be done in good faith by such authority or Government or such officer or employee or such person under the provisions of this Act or the rules or regulations made there under.
74. Officers and employees of the Central Government, National Authority, National Executive Committee, State Government, State Authority, State Executive Committee or District Authority shall be immune from legal process in regard to any warning in respect of any impending disaster communicated or disseminated by them

in their official capacity or any action taken or direction issued by them in pursuance of such communication or dissemination.

75. (1) The Central Government may, by notification in the Official Gazette, make rules for carrying out the purpose of this Act.
- (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely;
- (a) the composition and number of the members of the National Authority under sub-section (2), and the term of office and conditions of service of members of the National Authority under sub-section (4), of section 3;
 - (b) the allowances to be paid to the members of the advisory committee under sub-section (2) of section 7;
 - (c) the powers and functions of the Chairperson of the National Executive Committee under sub-section (3) of section 8 and the procedure to be followed by the National Executive Committee in exercise of its powers and discharge of its functions under sub-section (4) of section 8;
 - (d) allowances to be paid to the persons associated with the sub-committee constituted by the National Executive Committee under sub-section (3) of section 9;
 - (e) the number of members of the National Institute of Disaster Management under sub-section (2), the term of the office and vacancies among members and the manner of filling such vacancies under sub-section (3) and the manner of constituting the Governing Body of the National Institute of Disaster Management under sub-section (4) of section 42;
 - (f) the manner of constitution of the Force, the conditions of service of the members of the Force, including disciplinary provisions under sub-section (2) of section;
 - (g) the manner in which notice of the offence and of the intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government or the other Authority or officer under clause (b) of section 60;
 - (h) the form in which and the time within which annual report is to be prepared under section 70;

- (i) any other matter which is to be, or may be, prescribed, or in respect of which provision is to be made by rules.
- 76.
 - (1) The National Institute of Disaster Management, with the previous approval of the Central Government may, by notification in the Official Gazette, make regulations consistent with this Act and the rules made there under to carry out the purposes of this Act.
 - (2) In particular, and without prejudice to the generality of the foregoing power, such regulations may provide for all or any of the following matters, namely;
 - (a) powers and functions to be exercised and discharged by the governing body;
 - (b) procedure to be followed by the governing body in exercise of the powers and discharge of its functions;
 - (c) any other matter for which under this Act provision may be made by the regulations.
- 77. Every rule made by the Central Government and every regulation made by the National Institute of Disaster Management under this Act shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised of one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive session aforesaid, both Houses agree in making any modification in the rule or regulation or both Houses agree that the rule or regulation should not be made, the rule or regulation shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, that any such modification for annulment shall be without prejudice to the validity of anything previously done under that rule or regulation.
- 78.
 - (1) “The State Government may, by notification in the Official Gazette, make rules to carry out the provisions of this Act.
 - (2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely;
 - (a) the composition and number of the members of the State Authority under sub-section (2), and the term of office and conditions of service of the members of the State Authority under sub-section (5), of section 14;

- (b) the allowances to be paid to the members of the advisory committee under sub-section (2) of section 17;
 - (c) the powers and functions of the Chairperson of the State Executive Committee under sub-section (3), and the procedure to be followed by the State Executive Committee in exercise of its powers and discharge of its functions under sub-section (4) of section 20;
 - (d) allowances to be paid to the persons associated with the sub-committee constituted by the State Executive Committee under sub-section (3) of section 21;
 - (e) the composition and the number of members of the District Authority under sub-section (2), and the powers and functions to be exercised and discharged by the Chief Executive Officer of the District Authority under sub-section (3) of section 25;
 - (f) allowances payable to be persons associated with any committee constituted by the District Authority as experts under sub-section (3) of section 28;
 - (g) any other matter which is to be, or may be, prescribed, or in respect of which provision is to be made by rules,
- (3) Every rule made by the State Government under this Act shall be laid, as soon as may be after it is made, before each House of the State Legislature where it consists of two Houses, or where such Legislature consists of one House before that House.
79. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government or the State Government, as the case may be, by notification in the Official Gazette, make order not inconsistent with the provisions of this Act as may appear to it to be necessary or expedient for the removal of the difficulty;
- Provided that no such order shall be made after the expiration of two years from the commencement of this Act.
- (2) Every order made under this section shall be laid, as soon as may be after it is made, before each House of Parliament or the Legislature, as the case may be.

APPENDIX- III

TERMINOLOGY

CAPACITY BUILDING: *A combination of all the strengths and resources available within a community, society or organization that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personal or collective attributes such as leadership and management. Capacity may also be described as capability.*

DISASTER: *A catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made cause, 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 it of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area (DM Act, 2005).*

DISASTER MANAGEMENT: *It covers the range of activities designed to maintain control over disasters/ emergency situations and to provide a framework for helping people to avoid, reduce the effects of, or recover from impact of a disaster. These activities may be related to preparedness, mitigation, emergency response and relief and recovery (reconstruction and rehabilitation) and may be conducted before, during or after a disaster.*

DISASTER RISK MANAGEMENT: *The systematic management of administrative decisions, organization, operational skills and abilities to implement policies, strategies and coping capacities of the society or individuals to lessen the impacts of natural and related environmental and technological hazards.*

DISASTER RISK REDUCTION: *The systematic development and application of policies, strategies and practices to minimize vulnerabilities, hazards and the unfolding of disaster impacts throughout a society, in the broad context of sustainable development.*

EMERGENCY/ CRISIS MANAGEMENT: *The organization and management of resources and responsibilities for dealing with all aspects of emergencies, in particularly preparedness, response and rehabilitation. It involves plans, structures and arrangements established to coordinate the response of government, voluntary and private agencies during an emergency.*

HAZARD: *Phenomena that pose a threat to people, structures or economic assets and which may cause a disaster. They could be either man made or naturally occurring in our environments.*

MITIGATION: *All activities undertaken in anticipation of the occurrence of a potentially disastrous event, including preparedness and long term risk reduction measures.*

RISK: *A measure of the expected losses due to a hazard event of a particular magnitude occurring in a given area over a specific time period.*

VULNERABILITY: *The extent to which a community, structure, service and geographic area is likely to be damaged or disrupted by the impact of particular hazard, on account of their nature, construction and proximity to hazardous terrain or a disaster prone area.*

APPENDIX- IV

ABBREVIATIONS

ADA Aizawl Development Authority	AMC Aizawl Municipal Council
AR Assam Rifles	BDO Block Development Officer
BSNL Bharat Sanchar Nigam Limited	CBDM Community Based Disaster Management
CBO Community Based Organizations Preparedness	CBDP Community Based Disaster Preparedness
CMO Chief Medical Officer	CEM Chief Executive Member
CRF Calamity Relief Fund	CTF Community Task Force
DDMA District Disaster Management Authority Committee	DDMC District Disaster Management Committee
DDMP District Disaster Management Plan Centre	DEOC District Emergency Operation Centre
DHS District Hospital Superintendent	DIO District Information Officer

DM Disaster Management Rehabilitation	DM&R Disaster Management and Rehabilitation
DMP Disaster Management Plan	DMT Disaster Management Team
DRDA District Rural Development Agency	DRM Disaster Risk Management
DTO District Transport Officer	IMT Incident Management Teams
EOC Emergency Operation Centre	ESF Emergency Support Functions
FCS&CA Food, Civil Supplies and Consumer Affairs	GoI Government of India
IAP Immediate Action Plan	IC Incident Commander
I&PR Information and Public Relations	ICS Incident Command System
IDRN India Disaster Resource Network Communication	IEC Information, Education and Communication
MADC Mara Autonomous District Council	MDC Member of District Council
MPRO Mizoram Police Radio Operators	MST Mizoram State Transport
MTP Mara Thyutla Py	NCC National Cadet Corps
NSS National Service Scheme Authority	NDMA National Disaster Management Non-Governmental Organization
NIC	National Informatics Centre
NO Nodal Officer	NSS National Service Scheme
P&E Power and Electric	PCR Police Control Room
PHC Primary Health Centre	PHE Public Health Engineer
PSA Project Support Associate	PWD Public Works Department
QRT Quick Response Team	RCC Reinforced Concrete Cement
SDMA State Disaster Management Authority Plan	SDMP School Disaster Management Plan
SDRF State Disaster Response Force	S&R Search and Rescue
SOC Site Operation Centre	SOP Standard Operation Procedures
UNDP United Nations Development Programme Committee	VDMC Village Disaster Management Committee
VDMP Village Disaster Management Plan Team	VDMT Village Disaster Management Team

APPENDIX- V

LIST OF IMPORTANT WEBSITES

- 1) www.idrn.gov.in India Disaster Resource Network

- 2) www.ndmindia.nic Natural Disaster Management India. Provides current news on Cyclones, Flood and Drought, Weather links from NIC and weather conditions/temperatures on Indian Ocean.
- 3) www.nicee.org The National Information Center of Earthquake Engineering
- 4) www.imd.ernet.in Indian Meteorological Department
- 5) www.asc-india.org Amateur Seismic Centre
- 6) <http://mizoramdmr.nic.in> Mizoram Disaster Management & Rehabilitation Department. Provides information of all disaster related activities done in Mizoram.
- 7) <http://ioc.unesco.org/itsu> IOC/ UNESCO International Coordination group for the Tsunami Warning System in the Pacific (ICG/ ITSU) Paris, France
- 8) <http://www.csre.ittb.ac.in/rn/resume/landslide/lsl.htm> Landslide Information System- Center of Studies in Resource Engineering, IIT Mumbai
- 9) <http://landslides.usgs.gov> USGS National Landslide Hazards Program
- 10) www.cwc.nic.in Central Water Commission of India
- 11) <http://www.envfor.nic.in> Ministry of Environment and Forests
- 12) <http://www.iifm.org/databank/index.html> A Comprehensive Internet Information bank on forest and related resources in India and around the world, prepared by Indian Institute of Forest Management, Bhopal.
- 13) www.ipaindia.org Loss Prevention Association of India Ltd. (LPA) is engaged in promoting safety and loss control through education, training and consultancy.
- 14) www.dmibpl.org Disaster Management Institute
- 15) <http://www.nidm.net> National Institute of Disaster Management
- 16) <http://dst.gov.in> Department of Science and Technology
- 17) <http://www.icar.org.in/> Indian Council for Agriculture and Research
- 18) <http://www.iirs-nrsa.org/> Indian Institute of Remote Sensing
- 19) <http://www.bis.org.in> Bureau of Indian Standards
- 20) <http://www.gsi.gov.in/> Geological Survey of India
- 21) <http://gov.ua.nic.in/dmmc/> Disaster Mitigation and Management Centre
- 22) <http://www.unisdr.org/> International Strategy for Disaster Reduction



Some photos of Landslide after 16th & 17th May, 1995 Cloud burst

